

THE BREAKING WAVE

Oceans reform in Aotearoa New Zealand



Greg Severinsen, Raewyn Peart, Bella Rollinson, Tracey Turner and Phoebe Parson

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List of terms

ACE	Annual catch entitlement	MSY	Maximum sustainable yield
AMA	Aquaculture management area	NBA	Natural and Built Environments Act
EDS	Environmental Defence Society	NES	National environmental standard
EPA	Environmental Protection Authority	NPS	National policy statement
EEZ	Exclusive economic zone	NZCPS	New Zealand Coastal Policy Statement
EEZ Act	Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012	QMA	Quota management area
IMO	International Maritime Organization	QMS	Quota management system
IPA	Indigenous protected area	RMA	Resource Management Act 1991
ITQ	Individual transferable quota	TAC	Total allowable catch
MACA Act	Marine and Coastal Area (Takutai Moana) Act 2011	TACC	Total allowable commercial catch
MPA	Marine protected area	UNCLOS	United Nations Convention on the Law of the Sea
		UNDRIP	United Nations Declaration on the Rights of Indigenous People

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We also note that while the Ministry for the Environment and Department of Conservation provided financial support for the project, the views expressed and any omissions or errors are solely those of the authors/EDS.

1 Introduction



West coast, Northland

Craig Potton

1.1 Background

Aotearoa New Zealand has jurisdiction over a very large marine domain. The state of that environment was specifically assessed in a joint report by the Ministry for the Environment and Statistics New Zealand (*Our Marine Environment 2019*).¹ It describes a space with many uses and much potential to benefit humanity, but also one which is suffering serious and concerning environmental degradation and imminent threats of species extinctions. Habitats are under threat and biodiversity is declining. Land-based activities are polluting our oceans and shorelines. Pest species are expanding in number and range. Climate change is affecting our seas, what can thrive in them, and how we can use them. And there are questions about how we, as New Zealanders, make the best use of what can be scarce and contested marine resources. All of this is tied up with deep questions about the role of Māori and the implications of te Tiriti o Waitangi for how we manage te moana.² It is a complex space. Yet while for many of us the sea may be out of sight in our day-to-day lives, we cannot afford for it to be out of mind. Many challenges like climate change, pollution and biodiversity loss are cross-cutting and interlinked. They need to be tackled head on, and together, rather than on an ad hoc, disjointed and piecemeal basis. In short, the system by which the country's marine areas are managed and protected is in need of significant change to make it fit for purpose in the 21st century.

The oceans management system is a very broad, and complex, thing. It encompasses many different human activities across multiple spaces: those in the marine area itself (estuaries, the territorial sea, the exclusive economic zone (EEZ) and the extended continental shelf) as well as those on land that impact those spaces and what people do in them. It includes norms, legislative frameworks, institutions and various tools. And an equally important aspect of the system is the *processes* through which decisions and interventions are made. These determine who is involved, how choices are made, and how different processes relate to each other. We define the oceans management system in more detail below and describe it in Chapter 3.

The need to provide a more integrated system for oceans management has long been recognised. The current legal framework has developed over more than 50 years into an uneven patchwork of provisions. There are multiple pieces of overlapping legislation and some significant gaps in coverage, including no marine protected area (MPA) legislation that applies outside the territorial sea. Ad hoc legislation for specific locations such as the Hauraki Gulf, Fiordland and Kaikōura is, at least partly, indicative of failings in the broader system. Some legislation is outdated and in need of radical revision, including, most notably, the Wildlife Act 1953, the Marine

Reserves Act 1971 and the Marine Mammals Protection Act 1978. Other legislation, such as the Resource Management Act 1991 (RMA), is being reformed but largely from a terrestrial rather than marine perspective. There is no overarching mechanism to help ensure that all legislation impacting on the marine environment is interacting coherently. While what we need is an oceans management *system*, arguably what we currently have is a mixed assortment of oceans management interventions.

The process for reforming the resource management system is now well underway, in the wake of the report of the government's independent panel chaired by Hon Tony Randerson QC (see Chapter 4).³ The marine space looks likely to be the next cab off the rank. The need for a conversation about fundamental oceans reform has been underscored by Cabinet papers referring to a "review of the marine system" following overhaul of the RMA.⁴ Since the 2020 election, and creation of a new ministerial portfolio for Oceans and Fisheries, all indications are that oceans reform is being seen by government as a priority. There has been the 2021 announcement of a marine "vision", and a series of proposed reforms to the Fisheries Act 1996, as well as references to being open about deeper reforms to the oceans management system.⁵

In contemplating oceans reform we have an opportunity, not just to fix current problems in this system, but also to reflect on future risks and opportunities. There is potential to build something better, not just tinker with what we have. That requires deep thought about the nature of our relationship with our oceans, what they mean to us, and what we want to use them for. An oceans management system should reflect the values of modern society rather than the intellectual or ethical assumptions and inheritances of the past.

1.2 The EDS project

It is against this background that the Environmental Defence Society (EDS) is conducting a first principles policy project looking at the future of Aotearoa New Zealand's oceans management system. The project is intended to encourage and facilitate an open discussion about what the system could and should look like over the coming decades. It is doing this by (1) conceptualising the (currently fragmented) system as an integrated whole, (2) analysing both targeted and larger scale options for change to that system, and (3) exploring different starting points for what a future system as a whole *could* look like. This report is aimed at a wide audience including Ministers of the Crown, policy advisors, Māori, marine stakeholders and the interested public. A summary document is also available to highlight key points and options.

The analytical approach and structure of the report are explained further below. The approach is conceptually similar to that applied to EDS's multi-phase work on resource management system reform (which helped facilitate a discussion that led to the government's current package of reforms and overhaul of the RMA). In some important ways, however, the marine context is different and we have reflected this in the structure of this report.

As part of the project, EDS released a working paper in September 2021 which included a series of questions for readers to consider. We are grateful for the feedback received on the working paper, as well as from the workshops and interviews we have conducted around the country.

The timing of the project is deliberate. It is intended not just as a think piece or call for change, but as something that can support future marine reform efforts in a tangible way. The project's title is also deliberate: we feel that momentum for change in the marine space has built up over the past 20 years to the point where deeper systemic reform is now a wave waiting to break.

We should also note at the outset that the need for deeper oceans reform – which may take several years to progress – should not be used as an excuse to do nothing in the meantime. There are many elements of the system – legislative and otherwise – that require targeted attention. Many of these elements (such as MPAs, regenerating the Hauraki Gulf, supporting a sustainable and productive marine economy, reducing catchment-based pollution and minimising waste) are urgent and on the government's radar already. They need to proceed now. But careful thought needs to be given to how such short-term changes can be eventually knitted into longer-term reforms.

The project is not intended to be an exhaustive list of detailed problems with the current system. Nor is this report making firm recommendations or arriving at a single proposition for reform. We need an open conversation about options before choosing a way forward. We anticipate a Phase 2 of the work that will develop a single preferred model and a pathway to achieve it.



Hahei, Coromandel Peninsula

1.3 The structure of the report

This report is divided into three parts. Part 1 looks at what we have now. This includes a description of Aotearoa New Zealand's marine environment, how we use it, and the problems/challenges this has caused (Chapter 2); a summary of the existing oceans management system and issues with that system (Chapter 3); and the context within which systemic reform would occur, including reform measures currently planned or underway (Chapter 4). This recognises that in undertaking oceans reform, policy makers will not be starting from a blank slate.

Against this background, Part 2 of the report looks at various options for reforming our oceans management system. The structure of this part largely reflects the way in which we are breaking up the system into manageable “chunks” for analysis. In short, this is according to cross-cutting “themes”: norms (worldviews, principles and objectives); tools (specific ways in which the system intervenes to shape people's behaviours); and structures (how legislation and institutions are split up and designed). Information and money are also important cross-cutting themes that flow through all of the above.

Exploring reform options in this way – through themes that cut across the whole system (rather than looking at a series of sectors, problems,

solutions or existing legislative frameworks in turn) – is useful to ensure the system is continually viewed as an integrated, connected whole. For example, one important element within the theme of “norms” is people's worldviews and ethics. It is more useful, at least as a starting point, to consider options for these across the whole system (what mix of worldviews should underpin human relationships with te moana?) rather than only for particular sectors (eg what are we aiming for in fisheries?), spaces (eg what should and should not be allowed in marine reserves?) or statutes (eg what should the purpose of EEZ legislation be?). It allows the bigger picture systemic questions to be tackled first.

We include **blue boxes** that summarise key points and discussion in the text. Where concrete options for change appear, we highlight these as building blocks (🧱 – noting that these particular blocks are non-plastic and fully biodegradable). Some of the building blocks represent alternative options, while others complement existing mechanisms. Building blocks are summarised at the end of each chapter to give a sense of some of the reforms that could be mixed and matched.

Part 3 of the report is more exploratory and seeks to draw some of the theme-based threads and building blocks of Part 2 together. This recognises that the choices between the myriad options presented for each theme (eg whether the RMA should be integrated with the Fisheries

Raewyn Peart



Point Chevalier Beach, Auckland

Act or not) are not just to be made on their own merits. They must also provide the pieces for a carefully constructed, internally coherent system, with strong connections between its parts and with a powerful overall narrative. This means that contemplating the merger of legislation, for example, would require close consideration of the institutional settings that support it (would there be multiple government ministries or just one?, and what role would the courts play?), the norms that underpin it (would a combined statute have different purposes and principles depending on the type of decision being made?) and the types of tools used (would there continue to be a need for both RMA-style national direction and Fisheries Act-style sustainability measures?). And even this element would only be one part of a much larger system.

Part 3 therefore culminates in the sketching out of several possible approaches for what a reformed system could look like. This is not intended to be a set of comprehensive models to be adopted or rejected. Instead, it is designed to show which granular options described in Part 2 could work together, and to challenge readers to think about different ways of approaching systemic reform – what a starting point could look like. Each will have pros and cons.

Chapter 1	Introduction
Part 1	What we have now
Chapter 2	The marine environment
Chapter 3	The current oceans management system
Chapter 4	The context of reform
Part 2	Options for the future
Chapter 5	Conceptualising a future oceans management system
Chapter 6	What is the rationale for having a system?
Chapter 7	Ethics, principles and objectives
Chapter 8	Reconsidering the toolkit
Chapter 9	Spatial protections in the toolkit
Chapter 10	Strategic and integrative tools
Chapter 11	Legislative design
Chapter 12	Institutional design
Part 3	Drawing the threads together
Chapter 13	Visions for the future

Figure 1.1: Structure of the report

Te ao Māori/tikanga Māori and te Tiriti o Waitangi need to underpin thinking about a new system. These are not just “subjects” of a system that is otherwise assumed to be “Western” in its foundations (things to be contained *within* it or protected *by* it).⁶ Tikanga and te Tiriti are also living and evolving things that exist *outside* the oceans management system. Indeed, they are guiding factors (among others) in designing what the system should look like in the first place (including how problems are identified and articulated and how tools are deployed).

Te ao Māori and tikanga Māori are not just “subjects” of the oceans management system to be provided for or protected within that system. They are factors that should guide what the system looks like and the design choices made across all themes.

1.4 What is the oceans management system?

Although it is a convenient label, an oceans management system constructed by humans does not actually manage the oceans per se. The oceans have managed *themselves* since time immemorial. What the system does is manage *people* and their *interactions* with the oceans. It would be more accurate – albeit probably also more confusing – to call it the marine *people* management system.

But what actually is it? Above, we have referred to the “oceans management system” in a fairly imprecise manner. That is partly because it describes an artificial idea with fuzzy edges, not a concrete thing or universally agreed set of rules and processes. There is no statutory or dictionary definition of it. Indeed, the concept is seldom talked about at all, with most preferring to think in terms of specific sectors (eg the fisheries system), statutes (eg the RMA), issues (eg marine pollution), solutions (eg MPAs) or disciplines (eg law or philosophy). The oceans management system arguably includes all such things and more, and there is no single right or wrong way to set its boundaries. Yet because it is the subject of this report, it behoves us to offer some more specific thoughts on how the system can be defined.

The oceans management system can be thought of as the collection of laws, institutions, incentives and norms that collectively manage or influence outcomes in marine areas under Aotearoa New Zealand’s jurisdiction. This is a broad definition. But we need to be careful not to define the system so widely that it loses its usefulness. For example, a meaningful analysis of the system cannot include a deep dive into

everything (eg labour laws for marine workers, trade rules for goods imported by sea, criminal law for those committing offences in the EEZ, or security and defence frameworks). That quickly becomes an overwhelming prospect requiring links to be made into many other complex systems. Instead, the focus needs to be narrowed somewhat, onto managing human interactions *with* the marine “environment” and the natural and physical “resources” within it.⁷

But the system should not be so narrowly defined that a reform package misses key components, thereby undermining the point of the exercise. To be useful, it needs to be a broad concept. We are therefore conceiving of the oceans management system as a subset of the broader resource management system (which is much wider than just the RMA).⁸ For example, recurring efforts to reform the RMA – including the most recent through the Randerson Panel process⁹ – have covered some elements of oceans reform but have consistently excluded consideration of fisheries, conservation laws, and related aspects like environmental education and local government settings. It is not therefore really oceans “system” reform. Nor should marine reform fail to address land-based stressors on the marine environment such as sediment, plastics and chemical pollution. Too narrow a view of the system also sits uneasily with *te ao Māori*, where *te taiao* (the interconnected and holistic relationship between all living things in respect of our natural world)¹⁰ and *te moana* (the ocean) have no clear boundaries within them or between them and people.¹¹

As a starting point, the oceans management system can be seen as the collection of laws, institutions, incentives and norms that collectively manage or influence human interactions with the marine environment and the natural and physical resources within it under Aotearoa New Zealand jurisdiction.

The best way to approach system-wide reform may be to focus more on its core, rather than defining a sharp boundary or dismissing peripheral subjects as irrelevant. This reflects the idea that the system is about components that are tightly interlinked, and our focus should diminish as those connections become weaker. For example, while the entirety of marine criminal law (eg penalties for customs breaches) is intuitively beyond the scope of the system we are concerned with, aspects of it are still relevant (eg when it comes to enforcement and penalties for unauthorised pollution or extractive activities). The Education Act 1989 (which guides the curriculum that establishes the knowledge and ethics of future decision-makers) is relevant to the oceans management system as



Raewyn Peart

Container ship, Auckland harbour

well as other areas of public policy. And even higher-level, non-legislated, concepts like capitalism and democracy are important elements to consider in a future system, even though they have much wider resonance across society. In short, there is a lot of overlap between different “systems” and sharp boundaries cannot realistically be drawn. Any flow-on effects between systems need to be carefully considered when placing one system – like oceans management – at the forefront of analysis.¹²

For that reason, we have chosen not to ring-fence the oceans management system by reference to particular pieces of existing legislation like the RMA, Fisheries Act or Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 (EEZ Act). Doing so could prevent consideration of expanding the scope of existing statutes, or redrawing their boundaries in fundamentally different ways, which are legitimate options for reform. It could also dismiss other frameworks, which are not specifically “marine”, as unimportant (eg the Environmental Reporting Act 2015 or Companies Act 1993), whereas they (or parts of them) can play important roles in marine outcomes in the future. Furthermore, some reform measures may even be so systemic as to not comfortably fit within a specific statutory framework at all. For example, many public authorities operate within powers of general competence, including government departments and councils. That means their interventions can be extremely diverse (eg funding various initiatives, deploying new technology, or undertaking projects), and not obvious from looking at the statute book.

Using existing statutory boundaries would be a sub-optimal way to define the oceans management system.

With this in mind, in Figure 1.2 we provide a more detailed definition of the system for the purposes of this project.

<p>“Aotearoa New Zealand’s oceans”</p>	<p>The oceans management system is about Aotearoa New Zealand’s oceans, which include areas where the country has sovereignty or sovereign rights. The landward boundary of the ocean the mean high water springs level, and the seaward boundary is either the edge of the EEZ or (where it is further out) the edge of the continental shelf. For the purposes of this project, it does not include areas within Aotearoa New Zealand’s Antarctic marine jurisdiction¹³ or areas of the high seas where the country has jurisdiction over its flagships.</p> <p>Oceans include all natural and physical resources in those areas, whether they are animate or inanimate; public, private or neither; or natural or built.¹⁴ To the extent that seeing the oceans in terms of “resources” is considered unacceptably instrumentalist – a fair point – this term can be replaced with the marine “environment” or “moana”.¹⁵ The point is that the system includes everything in the oceans. We use the terms seas, oceans, moana and the marine environment interchangeably.</p>
<p>“Management”</p>	<p>Management includes the following <i>public</i> interventions in relation to the marine resources/environment described above:</p> <ul style="list-style-type: none"> • Regulation: requiring or restricting human action (you must/must not). • Behavioural incentive: influencing human action (you should). • Resourcing/funding: enabling human action (you can). • Strategy: making a plan for how the above three interventions will happen over time and space. <p>In order to generate the following kinds of actions:</p> <ul style="list-style-type: none"> • Limiting or preventing human activities to manage adverse impacts on the environment or other users (whether resources are used, and how). • Influencing the use of resources for environmental, social and economic benefit (economic and social planning, and environmental enhancement – how and why resources are used). • Shaping the spatial distribution of resource use, protection and enhancement (spatial planning – what happens where) . • Shaping the temporal distribution of resource use, protection and enhancement (strategic planning – when things happen). • Distributing resources to different parties or communities of interest (allocation – who gets what). <p>The concept of “management” therefore includes all human activities that use or protect natural and physical marine resources (eg conservation, recreation, shipping, fisheries, mining etc).¹⁶</p>
<p>“System”</p>	<p>The system is the framework of norms, structures (eg legislation and institutions), tools and networks within which all of these public interventions are supported and interact.</p>

Figure 1.2: A definition of Aotearoa New Zealand's oceans management system for the purposes of this project

A few points about the definition above should be explained. First, the main purpose of this project is to contribute to *government*-led reform. As such, it deliberately limits the system to questions of “management” – that is, public interventions that are imposed (or deliberately not imposed) to influence public and private action (such as regulations, funding and other incentives). That is not to demean the importance of behaviour change at the level of individuals or companies, which can be affected by other drivers (eg markets, ethics, and public and consumer opinion). Nor is it to lose sight of how much technological innovation could help. It simply reflects what government – and therefore this project – can influence. While a focus on public interventions means that purely private actions are not conceived of as forming part of the “system”, public actions that *influence* private behaviour (eg tax settings, education campaigns, psychological nudges, government financial

support for research and development or community groups, regulation and compliance measures) are.¹⁷

Similarly, an “oceans management system” could be defined to include tikanga Māori (rules, protocols, practices and norms). This is a culturally important system through which tangata whenua¹⁸ manage the relationships between people and te moana, although those relationships are couched in very different terms to how a system built on a Western foundation frames them. In other words, it is a system of oceans management in its own right. However, this project is not about *reforming* tikanga, but is considering its interface with, and influence over, the system we have defined above (one defined by *public* intervention).¹⁹

Craig Potton



Rawene, Northland

Secondly, the fact that activities occurring outside the marine environment (eg on land, in water catchments and in the air) can impact on the oceans and what is in them, means that “management” includes interventions outside the marine space itself. In other words, the geographical constraints of the system (“oceans”) is about where outcomes manifest rather than where interventions occur.

Thirdly, we have defined “management” to include interventions that generate various “actions”. This word has been deliberately chosen instead of “outcomes”. Our view is that, in a first principles rethink, the boundaries of the system should not be arbitrarily defined according to the outcomes sought, because these – the objectives of the system – are one of many key design choices that need to be debated. While some objectives or principles, such as ecosystem-based management

and sustainability, might be obviously desirable,²⁰ what we want the system to achieve ultimately depends on our worldviews and ethics (see Chapter 7).

Finally, although they are important matters (especially with respect to migratory species and their connectivity with the Pacific and Antarctica), this project is not directly concerned with management of the high seas or the seabed beyond national jurisdiction.²¹ These have a more complex international framing and warrant separate attention. Nor are we directly concerned with Antarctic waters themselves. We are also not exploring in any depth land-based “coastal” issues like coastal erosion, managed retreat or coastal landscapes. Such things are about how the sea impacts the land. Our eyes are firmly focused on the sea itself and what affects it. With this in mind, we can turn to describing the moana, and the challenges we face within it.



Cocks Creek, Auckland

Endnotes

- 1 Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019). Similar conclusions, although delivered in a different framework based on te ao Māori and the stars of Matariki, have been presented in the government's most recent environmental reporting synthesis report *Environment Aotearoa 2022* (at 46-53).
- 2 Te Tiriti o Waitangi refers to the Treaty of Waitangi as set out in English and in Māori in Schedule 1 of the Treaty of Waitangi Act 1975.
- 3 Resource Management Review Panel *New Directions for Resource Management in New Zealand*, June 2020).
- 4 Office of the Minister for the Environment "Comprehensive review of the resource management system: scope and process" (21 June 2019) at 10.
- 5 Minister for Oceans and Fisheries "Oceans and Fisheries portfolio – ensuring healthy ecosystems" (2 July 2021). See also Minister for Oceans and Fisheries "Fisheries system reform agenda" (2 July 2021); Minister for Ocean and Fisheries "Fisheries Amendment Bill: Strengthening fishing rules and policies: landings and discards" (2 July 2021); Minister for Oceans and Fisheries "Fisheries Amendment Bill: Strengthening fishing rules and policies: offences and penalties and agile decision-making" (2 July 2021); Minister for Oceans and Fisheries "Revitalising the Hauraki Gulf – Government Sea Change Strategy" (2 July 2021); Minister for Oceans and Fisheries "Initial response to Prime Minister's Chief Science Advisor's report on commercial fishing" (2 July 2021); and Minister for Oceans and Fisheries "On-board cameras across the inshore fishing fleet" (2 July 2021).
- 6 Despite being often treated like that in practice in the current system (for example, in requirements to consider the Treaty of Waitangi, have particular regard to kaitiakitanga, or protect sites of cultural significance).
- 7 It is important to resist the temptation to define the scope of the system with reference to its objectives (eg everything relevant to achieving a "sustainable blue economy"), because those objectives are features of the system. In other words, the scope of the system needs to be defined before one considers what that system should be aiming to achieve, because there are many options for the latter that require discussion rather than arbitrary definition.
- 8 See Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation* (Environmental Defence Society, Auckland, 2018). Other important legislative frameworks include the Land Transport Management Act 2003, Climate Change Response Act 2002, Local Government Act 2002, Conservation Act 1987.
- 9 Resource Management Review Panel *New Directions for Resource Management in New Zealand* (June 2020).
- 10 Department of Conservation *Te Mana o Te Taiao – Aotearoa New Zealand Biodiversity Strategy 2020* (Department of Conservation, Wellington, August 2020) at 6.
- 11 See Robert Joseph and others *Stemming the Colonial Tide: Shared Māori Governance Jurisdiction and Ecosystem-Based Management over the Marine and Coastal Seascape in Aotearoa New Zealand – Possible Ways Forward* (Ko Ngā Moana Whakauka and Te Mata Hautū Taketake, Waikato, 2020) at 53-55.
- 12 Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation* (Environmental Defence Society, Auckland, 2018) at 31.
- 13 These areas have a further overlay of specific international legal requirements.
- 14 This is excluding human resources. The oceans management system as defined here does not include, for example, labour laws for workers on ships, maritime insurance law, or health and safety laws. It is about human interaction with the marine environment. However, it does include non-natural resources. This is important because a key part of managing oceans is mediating between different human activities that can impact on *each other* over and above any impact on the natural elements of the marine environment. For example, the system might need to choose whether a particular space is used for aquaculture, recreation, a port or something else. However, often activities that impact on other users will also impact on the natural environment (eg sediment can impact on aquaculture and fishing activities as well as ecosystems and habitats). There is often not a bright line between such impacts, making it important to include them all. Most human uses of the marine area rely on ecosystem services to support them, so an impact on a user is often an impact on the environment on which that user depends (eg the destruction of fish spawning habitat impacts both the natural environment and the fishing industry).
- 15 See the extremely broad definition of "environment" in the RMA, s 2.
- 16 Conservation is as much a "use" as sectors like fishing or mining. Using a resource does not always mean a consumptive use.
- 17 Some grey areas exist between public and private intervention, partly because it can be unclear whether an entity taking an intervention (such as a council-controlled organisation, a state-owned enterprise, or a heavily regulated private institution) is itself public or private in nature.
- 18 *Tangata whenua*, in relation to a particular area, means the iwi, or hapū, that holds mana whenua over that area; and *mana whenua* means customary authority exercised by an iwi or hapū in an identified area. See RMA, s 2.
- 19 Which can include public institutions where Māori are decision makers and operate under legislation.
- 20 Ecosystems based management is the framing under which the Sustainable Seas Science Challenge is being undertaken. See Sustainable Seas Science Challenges Ko ngā moana whakauka <www.sustainableseaschallenge.co.nz>.
- 21 The "Area" is defined under international law as the common heritage of mankind and is managed by the International Seabed Authority. One important issue of domestic law with respect to the high seas is the regulation of New Zealand flagships.

2 The marine environment



What strikes many as ironic is that we have long called our planet the Earth, when – and this is of course especially noticeable when our blue and green spheroid is seen from outer space – it manifestly should more properly be called the Ocean.¹

2.1 The importance of context

Before looking at options for reform, Part 1 of this report considers what we have now. In it, we look at three things:

1. Aotearoa New Zealand's marine environment and problems/challenges being faced in it (Chapter 2);
2. the existing system by which that environment is managed and problems with it (Chapter 3); and
3. the socio-political and historical context within which that system is operating and evolving (including reform measures that are planned or underway) (Chapter 4).

It is necessary to outline these matters to provide general context and to explain why a conversation about whole-of-system reform is urgently required. For the following reasons, they are also important considerations when thinking about reform options.

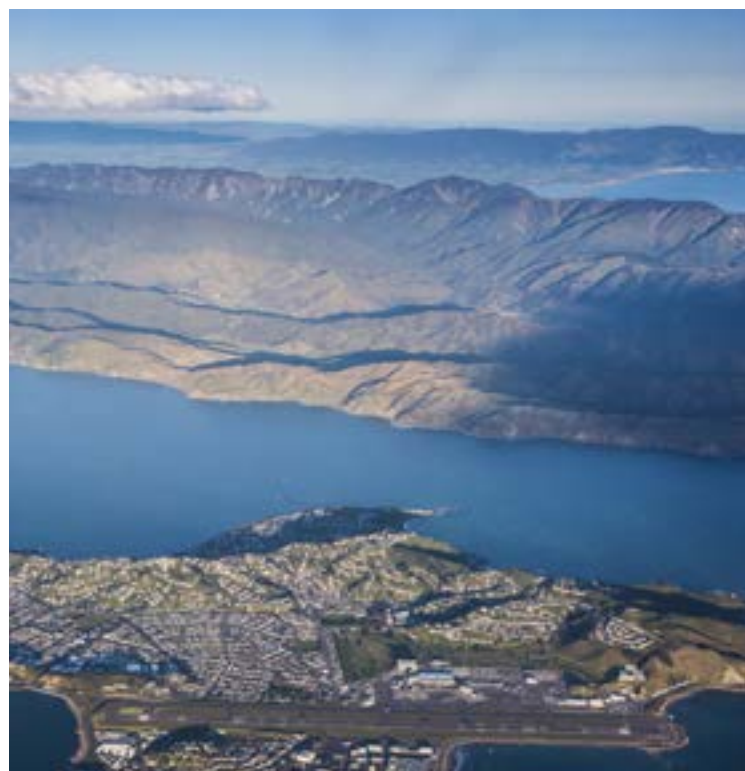
1. The way problems and challenges are articulated (and why they are considered to be problematic at all) can have implications for what the objectives of a future system should (and should not) be.²
2. Reform choices need to be informed by practical matters such as political and historical context, the perspectives of stakeholders, the degree of disruption that change could cause, and the amount of resourcing that may be required. The evolving relationship between the Crown and Māori is particularly important here.
3. A future system needs to be cognisant of reforms already underway, to ensure they are not replicated and to potentially mould them rather than reinvent them entirely.
4. A future system must comply with Aotearoa New Zealand's international legal obligations.

There are important links between Part 1 of the report (describing the marine environment, the existing system and the context of reform), and Part 2 (options for reform).

2.2 What is the marine environment?

The obvious place to start is by describing the marine environment itself. Aotearoa New Zealand is an island nation. The sea is never far away; it connects us to the rest of the world. Most of the country's population is not far from the sound of the waves,³ and is shaped both directly and indirectly by its presence. But what do we mean when we speak of the marine environment? The answer may seem obvious, but there are two ways in which the question of definition can be approached.

The first is the technocratic answer we might find in a geography textbook. This sees the oceans as a spatially delineated area, mapped in two or three dimensions; it is something on a map (see Figure 2.1). That is useful in conveying the geographical scope of what we are looking at: Aotearoa New Zealand's territorial sea (out to 12 nautical miles from land),⁴ its EEZ (which extends out to 200 nautical miles from land),⁵ and its extended continental shelf (which extends out further than the EEZ and was formally claimed in 2008 through an international legal process).⁶ These collectively span a vast area from sub-tropical to sub-Antarctic waters. From a "vertical" point of view, the marine environment is much more than just the water column and things within it – it includes the seabed below and the air above.



Wellington harbour

Raewyn Peart

The outer boundaries of the territorial sea and EEZ are legalistically (and somewhat arbitrarily), rather than ecologically, defined. In contrast, the boundary of the extended continental shelf is defined geologically. In practice, this means that the country has significant areas of “deep seabed” – beyond the geological continental shelf – within its EEZ jurisdiction. Aotearoa New Zealand has either sovereignty or a reasonably wide range of “sovereign rights” in all its waters and extended continental shelf. This affords sufficient jurisdiction to cover most things “resource management” (see Chapter 3 on international marine law).⁷

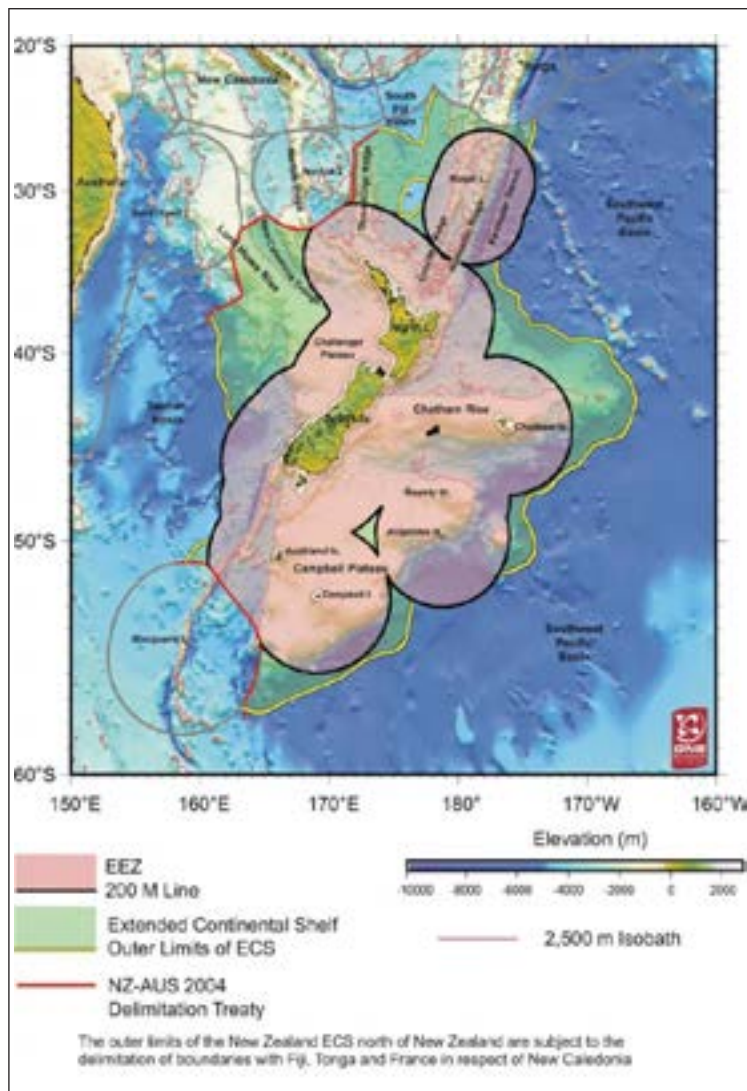


Figure 2.1: Aotearoa New Zealand's maritime zones (Source: Ministry for the Environment, 2013)

The most striking thing about Figure 2.1 is how extensive the country's oceans are. Indeed, Aotearoa New Zealand is a “continent” in its own right (often described as Te Riu-a-Māui/Zealandia), which is many times larger than what peeks above the waves at this point in geological history. The territorial sea extends over almost 170,000 square kilometres. That is significant, as is the country's more than 15,000 kilometres of coastline. If the EEZ is included, this figure jumps to over 5.8 million square kilometres. It is not exaggerating to say that Aotearoa New Zealand has jurisdiction over a marine empire – one that is many times larger than our land mass – albeit one whose main inhabitants are non-human.

Aotearoa New Zealand has responsibility for a huge marine area. This includes the territorial sea/coastal marine area within 12 nautical miles from land, the EEZ out to 200 nautical miles and the extended continental shelf.

The marine environment can also be described in a more values-based manner. Just as we can define a human being with reference to a physical body, we can define the oceans as something that takes up a particular space on a map. But just as a person is not only a bundle of DNA (we have a concept of *humanity*, which is much more), so too we can ask: what *are* our oceans?

That question is closely linked to our worldviews and ethics (see Chapter 7) and we do not resolve it here. But it is far from an academic question, because if we stray beyond a neoliberal mindset of the oceans as a supermarket shelf of resources to exploit, we might think differently about how we interact with our watery backyard as well as the kinds of “management” tools we use. For example, are the inhabitants of the sea commodities to be harvested and traded, or non-human persons with rights and interests to be defended? Is te moana itself a space to be managed in order to maximise human welfare, or the embodiment of ngā atua (deities like Tangaroa or Hinemoana) to be respected?

People's sense of what the oceans are is reflected in the stories they tell and the emotions they feel when they think about, look at, or experience the sea. In particular, the oceans are deeply embedded in te ao Māori, and they have been an integral part of Māori life and culture for centuries. Te moana is an ancestor, linked through oral tradition and whakapapa (kinship) to the people that use and protect it. Te moana evokes images of Māori deities, and a spiritual connection not only with the water (waitai), but also with the life within it. There is a rich genealogy to the moana in Māori culture:

Traditionally, Māori divided the natural world into realms ruled by various gods. These gods, the children of Ranginui (sky) and Papatūānuku (earth), were seen as the original kaitiaki (guardians) of their realms. Kaitiakitanga was based around these ...⁸

Water was considered to be an energy possessing myriad characteristics, shapes and natures. It upheld life, yet was also able to bring terrible destruction. This energy with all its forms, moods and expressions is called Tangaroa. The common translation, 'god of the sea', does not adequately convey its meaning.⁹

To Māori, the answer to the question *what are the oceans?* is therefore one with deep spiritual significance. It follows that harm to the oceans has significant spiritual, emotional and personal impact on mana whenua¹⁰ and kaitiaki:¹¹

Species depletion and imposition of harvesting bans have prevented harvesting practice and thereby caused loss of traditional knowledge, such as understanding life cycles, species management and food harvesting methods. Locally specific knowledge and skills are no longer used, and therefore are not able to be passed on to subsequent generations. [This affects] the passing on of stories and knowledge that was part of the communal experience of collecting, preparing and eating local foods. ... Younger generations now have less familiarity with the foods that are part of tribal tradition, and how to prepare them, and lack broader knowledge about their ecology. ... Ultimately resource depletion affects iwi and hapū identity.

On the flipside, a healthy marine environment has a positive impact on the mauri of the people. Many non-Māori New Zealanders also have a deep spiritual and emotional connection with the sea that surrounds them. This is reflected in the myriad ways we use the marine space (see further below), but also in the stories we tell. For example, one fisher has said:¹²

I like seeing fish come up out of the water. I love the fact that you don't have to be that good at reading and writing but you can use your skill at sea to benefit yourself. Every day's different. You can be frightened at sea, which will get blood rushing around your body. With fishing, there are a thousand different things – currents, moons, time of year, depth, baits, time of day, habitat, whether sharks are in the area and whether small fish are getting the bait. When you line it all up it's a good feeling, very satisfying. Then other days you can do your 18 hours a day for \$100 or a \$6 an hour wage. On the calm days it's beautiful. We also get to go surfing and diving. So it's the job for me.

People who live or work in or near the sea may express similar sentiments and, for many, jobs out on the water or pastimes like surfing, fishing or diving are ways of life. Just as a home is more than a house, so too can the oceans for many people be more than a space on a map.

The oceans can be defined in a technocratic way, but to many this may miss what the oceans truly *are*. In other words, a definition of the marine environment is inextricably bound up with how we, as people, perceive and value it.

2.3 The natural environment

There are many ways to describe the natural marine environment surrounding Aotearoa New Zealand. It is useful to start in generalities, recognising that all parts of the marine environment are connected.¹³

Most obviously, the thing that defines the marine environment is salt water. This enormous body of water is constantly moving. Powerful currents shift seawater around the globe. From a big picture perspective, surface water reaches the country from the Southern Ocean and the subtropical Pacific (via Australia), with these two currents meeting at a latitude roughly intersecting with Fiordland and the Chatham Rise. Where this warm water meets cold, there is an efflorescence of marine life. There are, of course, many more localised currents that shift seawater around the coast too.

Although it is harder to see, water moves vertically as well. Wind blowing across the sea can create surface currents, which move seawater towards or away from the coast. Deeper, more nutrient (nitrate and phosphate) rich water rises to replace surface water moving away from land. This "fertilises" the water and promotes phytoplankton growth – creating the basis for a rich food chain and marine life. This phenomenon occurs in many places, but is particularly noticeable along the northeast coast of Te Ika-a-Māui/the North Island, and the west coast of Te Wai Pounamu/the South Island.

Just like the land, the seabed is far from uniform geologically. Some parts are much deeper than others. Generally, the further from land one goes the deeper the sea becomes. While 75 percent of the country's total marine area has depths of more than one kilometre, some parts of the EEZ are relatively shallow. The Kermadec Trench, to the northeast of Te Ika-a-Māui/the North Island, is up to 10 kilometres deep. That is deeper than Mount Everest is tall.

Differences in latitude, the physical and chemical composition of water and seabed, the climate and temperature, and interaction with land, has created a wide variety of environments for marine life. We described some of these in the project's working paper.¹⁴ The living world of the oceans can be conceptualised as a series of food webs, which cut across these myriad environments. The basis of marine food webs is the sun, which plants use for photosynthesis. As the sun does not reach very deep into the water column, shallow coastal waters host the highest diversity and abundance of flora and other photosynthetic marine species.

There is a huge variety of marine plants in our seas, including seagrasses and seaweeds, but the largest group of oceanic organisms belong to a group called plankton. Plankton are not *just* plants; it is a generic name for tiny, often microscopic, organisms that rely on the currents for movement, and includes zooplankton (tiny animals such as worms and the tiny larval stage of creatures like crayfish). But plant plankton in its many varieties – called phytoplankton – forms the most significant pillar of the marine food chain.¹⁵ As we described in *Sustainable Seas*:¹⁶

Plankton are believed to be the most important life form on Earth. Through photosynthesis, phytoplankton convert water and carbon dioxide into organic material, or food and oxygen. They are at the base of the oceanic food chain, and without them, few other life forms in the ocean could exist.¹⁷ Plankton are also responsible for manufacturing a significant amount of the Earth's oxygen.

Phytoplankton are fed on by zooplankton, which are then predated by fish and other marine creatures. Feeding relationships are extremely complex. For example, some fish, including parore, silver drummer and butterfish, graze on seaweed. Others, including maomao, trevally and demoiselle sift plankton from the seawater. Still others, including snapper, blue cod, kahawai, John Dory and moki, predate on smaller fish and invertebrates living in the rocky reef environment or on adjacent areas of sediments.¹⁸ Bottom-feeding fish such as flounder, tarakihi, snapper, red cod and warehou predate on common residents of the coastal soft sediment seafloor including worms, crabs, shellfish, starfish, sea urchins and sea cucumber.

Small changes to marine food webs, whether through the removal of species, the addition of species or the introduction of stressors (eg human-induced climate change or pollution), can have significant impacts on their structure. In particular, plankton might look uniform and resilient, but these tiny species have evolved to be tolerant of specific environmental conditions (eg temperature, salinity, light). They can be a useful early indicator of environmental change, but damage to them is not necessarily

easy to reverse. The fortunes of entire marine ecosystems are dependent on their tiniest members.

Our marine environment is extensive and diverse. The deep seabed looks nothing like the coastal environment, and powerful currents carry water around our shores, forming a constantly moving water column that is the home of many forms of marine life. At the foundation of complex marine food webs is phytoplankton.

As on land, marine habitats (and the relationships between organisms within them) differ enormously, from soft sediments to reefs to underwater volcanoes. We can define habitats with reference to their geology (eg rocky reefs), the biota that live in them (eg seagrasses), or their geographical location (eg estuaries). Habitats provide shelter and food for the marine life that inhabit them. Biogenic habitats – those created by plants and animals, rather than just non-living landforms – are particularly important because they contribute to maintaining the health of the marine environment (eg shellfish beds filter pollutants from the water column).

Habitats support highly localised populations of marine life. The ecosystems they are part of can be complex, dynamic and often unique. Fish can use the seabed and its flora as a spawning/nursery ground as well as a food source and place to hide from predators. Marine habitats also support species that pass through them on much more ambitious journeys, often assisted by the currents. Some fish and marine mammals travel vast distances within and beyond the country's jurisdiction, and some have life cycles that take them on incredible migrations, not just across marine habitats but also into terrestrial and freshwater environments:¹⁹

Some species will spend all their lives in one habitat whereas others will use a range of different habitats during their lifecycle. For example, adult snapper generally spawn their eggs in highly productive areas close to estuaries and harbours, such as the Hauraki Gulf. The juvenile snapper move into sheltered coastal areas to mature, and then once they have grown to adult size, they often move further out to sea.

Studies have shown that the larvae of longfin eels actually hatch far away from New Zealand, possibly near Tonga, and one tagged female longfin eel took 161 days to swim from Canterbury's Lake Ellesmere to a point 160 kilometres north-east of New Caledonia.²⁰

New Zealand waters are visited by numerous migratory fish and they provide a critical habitat for many of them. Species such as the southern bluefin tuna and striped marlin migrate seasonally across the vast ocean basins.

The diversity of the marine environment is astonishing. An estimated 30 percent of Aotearoa New Zealand's biodiversity is in the sea.²¹ Over 17,000 species have been identified in the EEZ.²² Endemic species include around 95 percent of all known sponge species, over 80 percent of bivalves and gastropods, and three quarters of sea squirts.²³ It has also been pointed out that:²⁴

the animal kingdom Animalia²⁵ ... is by far the richest in species numbers with 13,415 marine species, followed by Chromista (a eukaryotic²⁶ supergroup) with 2,644 species, Plantae (mostly red and green seaweeds) with 702 species, Fungi with 89 and Protozoa²⁷ with 43 species.²⁸

Furthermore, the 412 species of marine invertebrates that have been assessed are thought to represent only five percent of the total number of existing species. That is a humbling thought to those who think we can “manage” the marine environment. How can humans possibly make such a claim when they don't even know what is there?

There is an astonishing diversity of marine life in Aotearoa New Zealand. We still have much to learn about ecosystems and how they operate. Thousands of marine species are yet to be identified. Species exist in complex relationships with each other and make their homes in environments as diverse as reefs, estuaries, seamounts and hydrothermal vents.

The marine environment contains species that are seen as particularly important beyond their role in maintaining a stable and healthy ecosystem or food web. Some are rare or threatened (and people's focus tends to come into sharp relief when there is the prospect of an entire species dying out). Others underpin valuable seafood export industries, such as crayfish, hoki and squid. But for others, like whales and dolphins, their value is based on more complex moral considerations (for example, they are seen as iconic, intelligent and altruistic, and more like people). Therefore is it “wrong” to harm them, even if they are not threatened and no significant damage is done to the ecosystems to which they belong?

The marine environment is a vibrant and diverse place filled with a variety of a variety of marine life including fish, marine mammals like whales, dolphins and sealions, seabirds, invertebrates, and flora like seagrass and kelp. Some species are particularly highly valued because they are rare or threatened, are economically valuable, or for other more complex ethical reasons.

There is a lot of regional and local variation in the sea. One reef is not like another reef, nor is one estuary the same as another estuary, whether because of their physical characteristics, the balance of life forms that live there, or the activities that people undertake within them. It is also not always easy to differentiate between what an environment “looks like” and the cultural or historical meaning it has to people, including from a mātauranga Māori (Māori knowledge) perspective. Many places around Aotearoa New Zealand have a special significance for Māori based on stories and histories of events that happened there or because of their place in the broader cosmogony of te ao Māori. For example:²⁹

Also known as Te Rerenga Wairua or Te Rēinga, [Cape Reinga] is one of the most sacred Māori places in New Zealand. Tradition says that the spirits of the dead travel along two pathways to Cape Rēinga, at the northernmost tip of the country. One path begins in the south and runs along Te Oneroa-a-Tōhē (Ninety Mile Beach), and the other starts at Kapowairua (Spirits Bay). The spirits congregate at Cape Rēinga before leaping into the water; they surface after crossing the ocean to Manawatāwhi (Three Kings Islands). There they sing a last lament for the loved ones they have left behind before proceeding to their spiritual home in Hawaiki.

The social and cultural context of a particular marine environment means it can be described quite differently by different people. Thus, to some, the space between Cape Rēinga and Ohau is not the “sea” or a series of ecosystems – it is the path of the spirits.

There is much about the marine environment that people do not know or understand. Much remains hidden. There are vast areas where habitats are not mapped. Thousands of species have yet to be studied in detail.³⁰ New species are being discovered all the time. Their interactions with each other, the physical environment, and with the atmosphere and land are not well known. Most significantly, the interactions between the natural environment and human activities are still poorly understood.

Our oceans are also changing over time. Some of this change – especially over long time periods – is natural. Many of our inshore coastal environments, and the species in them, have evolved slowly as geological, climatic and biological pressures have played out over thousands of years. They will continue to do so. However, much rapid change in natural structures and processes over the past decades and centuries, has been induced or accelerated by people.

Every part of our marine environment is unique. Many areas are defined not just by their topography and ecosystems, but by their significance to people. Particular places hold deep emotional and spiritual connections in te ao Māori as well as for other New Zealanders. But our oceans are changing, and a lot of that is down to human activities and pressures.



Te Rerenga Wairua

2.4 Humans in the marine environment

People in Aotearoa New Zealand are highly active in the marine environment. We are a maritime nation. Māori have a long-standing and deep relationship with te moana, going back centuries. The sea does not just exist – we use it and rely on it. How we do so says a lot about why we value it.

The idea of the sea – even the deep sea – being a wilderness may also be slowly changing. Some nearshore areas would no longer be recognisable to those who lived a hundred years ago, let alone Māori who first used them. People are no longer just boating on it or harvesting and landing the sea's bounty. They are increasingly making their presence felt by farming it, reclaiming it, mining it and harnessing its energy. Humanity is going deeper and wider. We are staying there longer. There are increasing conflicts over who gets to use things that we are realising are finite. In some places, particularly those that are close to large centres of human population (eg the Hauraki Gulf), the sea is becoming increasingly congested and subject to contention.³¹

The marine space is of significant and growing value to the people of Aotearoa New Zealand. Environmental reporting points out that the marine economy – comprising many things – was worth \$7 billion in 2017.³² The total sector employs around 70,000 people.³³ Commercial uses are varied, and increasingly diverse. Some particular parts of the marine environment are especially valuable. It has been suggested that the Hauraki Gulf, for instance, “supports the livelihoods of around one third of New Zealand’s population”.³⁴

Some uses of the sea are extractive. Fishing is the main extractive use, occurring around all of the country. The seafood sector contributes over \$4 billion per year to the economy, \$1.4 billion in export earnings, and \$1.1 billion in GDP.³⁵ In 2017, the financial contributions of fishing and aquaculture accounted for 29 percent of the marine economy, and these sectors employed over 13,000 people.³⁶ Wild commercial catch has remained stable at about 450,000 tonnes per year over the last decade. It comprises over 100 species caught using a variety of methods. As of March 2019, there were 37 large deep-water trawl vessels conducting around 25,000 tows per year, with 140 smaller trawl vessels conducting over 50,000 trawls annually.³⁷ The total commercial fleet (including inshore) comprises around 860 vessels.³⁸ Māori are heavily involved in the fishing industry, and around a third of fishing quota is owned by iwi interests.³⁹ The primary use of fish is for food, and it is exported as well as sold through supermarkets and local businesses. Fishing supports a wide range of businesses and livelihoods, from processors to high end restaurants to fish and chip shops.

Aquaculture is a large and developing industry. Total revenue from the sector in 2018 was over \$600 million, with the majority of revenue generated by mussel farming operations.⁴⁰ Recreational fishing is also significant commercially, in that it supports many economic activities (eg boat building, equipment, charter boat businesses).

Marine mineral mining is another extractive use of the sea. In particular, there has been increasing interest in recent years in deep seabed mining for phosphate nodules (which are ground up for fertiliser), massive sulphides (from hydrothermal vents, containing deposits of copper, zinc, lead and gold), manganese nodules (containing various metals) cobalt, and iron sands. Although proposals have been put forward for iron sand and phosphate mining, these have met significant opposition and litigation, and no applications have yet been approved.⁴¹ It remains an emerging industry. However, sand has been mined in shallower coastal marine environments for many years.⁴² Oil and gas – notably off the Taranaki coast – has been a significant activity for decades and still forms one of the mainstays of the region's economy.⁴³ However, the future of the industry remains uncertain, with government policy being not to allow new offshore oil and gas permits. Overall, marine minerals comprised 27 percent of the marine economy in 2017 – a significant figure.⁴⁴

Other commercial uses of the marine space are non-extractive. Shipping now provides the biggest contribution to our marine economy, including port operations, boat building and maintenance, and freight and passenger transport.⁴⁵ Busy passenger ferry services exist in the Hauraki Gulf, Wellington harbour, and across the Cook Strait. Around 99 percent of all exports are transported by ship.⁴⁶ The size of ships, and traffic volume, have increased in recent times. Most major coastal towns have a port, and many have deepened their access channels to accommodate larger ships. The sea is used in the communications and electricity sectors too – notably through the fibre optic and electricity cables that span the Cook Strait and the Hauraki Gulf.

Marine tourism – including sightseeing, whale watching, dolphin swimming, shark diving and (until recently, due to Covid-19) cruise ships – is also significant. It made up over 40 percent of the marine economy prior to Covid-19, employing over 43,000 people.⁴⁷ Marine species viewing is a significant element of this sector. Kaikōura, where whale-watching is a predominant part of the economy, hosted around 100,000 passengers on viewing trips prior to Covid-19.⁴⁸

Not all marine tourism is provided by commercial operators; it can be hosted by non-profits, community groups, sports groups or governmental bodies. Māori providers of marine tourism activities and experiences are a key part of the industry in Aotearoa New Zealand, not merely as economic players, but also as shapers of tourism values and practices. The places where tourism occurs are inseparable from the relationships and obligations *iwi* and *hapū* have with the land and sea.⁴⁹

How people use the marine environment might look quite different in the future. Aside from the potential growth of some existing industries such as aquaculture (especially into deeper, offshore waters, and new species like seaweed for stock feed, human consumption and nutraceuticals), the slowdown of oil and gas operations, and the emergence of new markets for existing resources,⁵⁰ there is the prospect of entirely new activities being established. There has been some interest, for example, in offshore wind energy (which is deployed extensively overseas) and tidal energy.⁵¹ Although it is by no means devoid of environmental impacts and has a number of technical and cost-related challenges,⁵² offshore wind may have a number of benefits (such as the ability to deploy farms at greater scale, potentially greater social license due to landscape concerns on land, and the prospect of stronger and more reliable wind offshore). A large-scale offshore wind farm off the Taranaki coast is currently being explored, which could power over 650,000 homes and represent over 11 percent of current demand capacity.⁵³

As mentioned, deep sea mining is still a prospect, and efforts continue to establish operations (with an iron sands mining proposal before the courts at the time of writing).⁵⁴ The development of incentives for sequestering “blue carbon” could also see new operations (eg seaweed farming) alongside potential for marine carbon geo-sequestration (whereby carbon dioxide from point source emissions is compressed and injected deep below the seabed and stored in perpetuity).⁵⁵ The latter has been a live prospect for over a decade, with technical studies looking at the geological potential of sub-surface offshore formations to store carbon dioxide securely, and a detailed exploration of the legal and other barriers to deployment commissioned by the government in 2013.⁵⁶ Technically, geo-sequestration is entirely possible (with Norwegian operations in the North Sea having been undertaken since the mid-1990s). But the main impediments here appear to be the cost of the technology (combined with an insufficient economic incentive through carbon pricing), a lack of legal clarity on a number of fronts (including under the RMA), and uncertainty about social license.

A spotlight on desalination

With Auckland's water shortages causing concern, a growing population, the prospect of a changing climate and increasing difficulties getting consent to take water from the Waikato River, there is the possibility of another use of the marine environment in the Hauraki Gulf, Manukau Harbour and potentially elsewhere: desalination for drinking water. Seawater desalination is an increasingly popular technology in drought-prone communities. The first plants were built during the 1960s and there are now some 20,000 desalination plants operating worldwide. In Melbourne, a desalination plant provides a third of the city's drinking water supply. The technology has improved markedly over the years, and during the last three decades, the cost of desalination has dropped by more than 50 percent.⁵⁷ It has potential to provide a secure supply of safe drinking water from a source that is much more abundant than freshwater catchments.

Seawater desalination involves the removal of salt and impurities from seawater to render it fit for human consumption. There are two types of desalination processes; thermal where the water is heated and condensation captured, and reverse osmosis where fine membranes act as microscopic strainers to remove the salt. Earlier plants used thermal processes but more recent ones have mainly adopted reverse osmosis. Both require a large amount of energy. This means an Auckland plant could potentially put additional pressure on the marine environment through the development of local infrastructure for electricity generation (eg tidal or offshore wind). As energy is a major cost of operating these plants, much research effort is being put into developing less energy-intensive desalination methods.

The salt that is removed from the seawater, and other chemicals which are utilised by the plant, are typically returned to the ocean (with about half of the volume of extracted water) in the form of a salty brine.⁵⁸ The brine water is heavier than seawater and therefore sinks to the seafloor, increasing salinity and reducing oxygen levels for bottom dwelling species. Chemicals that are used as anti-foulants and anti-scalants may also be discharged with the brine. Impacts are generally less in exposed high energy open-sea sites and greater in enclosed shallow sites⁵⁹ such as the Manukau Harbour. The location of any discharge is therefore something that would need to be carefully managed. In the future, it may be possible to reclaim the salt and heavy metals for other uses, avoiding the need to discharge them into the sea.

The intake and discharge pipes themselves can also have environmental impacts, although these are generally localised. In particular, marine life can be trapped against the intake screen or sucked into the treatment plant when seawater is pumped onshore. Such impacts can be reduced by using a subsurface intake which extracts seawater from beneath the seafloor, although this can be a costly solution.

Although desalination plants have their environmental challenges, they may be one way to provide vital public services in a manner that reduces reliance on ecologically stressed catchments and secure supplies that do not involve extensive damming of natural waterways. Some suggest that relying on the ocean as a potable water source might increase public awareness of the importance of a healthy marine environment more generally. If demand side incentives (eg more efficient use) cannot be relied on to maintain adequate supplies, any concerns with the technology will need to be considered against the alternatives. One is the reuse of wastewater—which is sometimes referred to as “purified-recycled water”. Highly treated wastewater has been deployed overseas (eg in Australia and Singapore) for various purposes. The process involves the use of ozone gas or ultraviolet light to remove viruses and bacteria and filtering the water through microscopic membranes to remove solids and trace contaminants. Although reuse means freshwater is being used more efficiently, the contaminants that are removed from it before reuse create a more concentrated stream of waste for disposal. There are also consumer perceptions to consider. Many people do not like the idea of drinking recycled wastewater, no matter how clean it is.⁶⁰ Against this option, it may be that desalination becomes a viable option as costs reduce, freshwater from waterways becomes more constrained and effective ways are found to address environmental impacts.

People use the sea in a variety of ways. It is of enormous value in supporting commercial activities like fishing, aquaculture, tourism, shipping and mining. Other uses of the marine area may also be deployed or expanded in the future, such as different forms of marine farming, energy generation, carbon sequestration and potable water supply (desalination).

Human use of the oceans is not just commercial. For one, it is extensively used for public purposes – as a receiving environment for stormwater/ floodwater and treated wastewater, as a space for defence and security facilities and operations, and as a blue highway for public transport. But as a society we also value it for many reasons that cannot always be subject to a dollar figure, including recreational, cultural and spiritual reasons. There are often no clear distinctions between those categories.

Māori were the first to use and protect the waters of Aotearoa New Zealand, and developed sophisticated fishing methods and knowledge about the timing of harvest.⁶¹ Some seabirds have been targeted for customary harvest as well as fish. Cultural practices with respect to the oceans have been long in development and remain at the heart of coastal Māori communities, so:⁶²

it is critical to manage these resources [mahinga kai] to allow people to continue gathering kai (food) in the way the ancestors did, and [it is] about mana and manaakitanga – the ability to welcome and host visitors by providing bountiful produce, as a demonstration of hospitality and respect.

In particular, there is no clear distinction in te ao Māori between cultural, commercial and recreational use of the oceans, or indeed between use and protection.⁶³ Kaitiakitanga encompasses all those things. Furthermore, whakapapa connections are not based on sharply delineated boundaries, and there can be difficulties when multiple mana whenua with overlapping rohe moana (district, region or area)⁶⁴ are pigeon-holed into Western processes that focus on particular resources or exclusive spaces. For example, there are around 26 different iwi and hapū groups with interests in the Hauraki Gulf, which is managed under multiple pieces of legislation. The process for delineating areas

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Umupuia, Hauraki Gulf

of customary marine title has also proved challenging where there are overlapping claims.⁶⁵

The marine environment is valued by all New Zealanders in a variety of ways; people enjoy swimming at the beach, sailing and water sports. Many people own or use boats. Estuaries and bays are highly valued for leisure and recreation, including in urban areas and holiday hotspots around the country. We like seeing the sea teeming with marine life; one study from 2008 recorded a staggering 375,000 annual visits to the Cape Rodney-Okakari Point marine reserve near Leigh.⁶⁶

Recreational fishing, in particular, is a core part of New Zealand culture. In a country with a population of around 5 million, in 2017-2018, people undertook around two million fishing trips a year and took home seven million fish and almost four million shellfish.⁶⁷ It is thought that around 600,000 people go fishing each year (whether from boats, surfcasting or diving), with a significant portion of the recreational catch being snapper and kahawai.⁶⁸ Most recreational fishing occurs along the north-eastern coast of the North Island, including in places close to large population centres like the Hauraki Gulf.⁶⁹ Many New Zealanders – including Māori – rely on recreational fishing as a source of food, it is not just a pastime.⁷⁰ However, the primary motivation of most recreational fishers is just that – sport and recreation.⁷¹

The marine environment is valued by Māori and non-Māori New Zealanders in ways that are not just commercial. It is a food basket, a playground and a place to find spiritual renewal.

Humans do not necessarily need to “use” the sea directly in order to value it. Many New Zealanders rely on the sea indirectly – for example, those who buy items that need to be shipped from overseas, the millions who enjoy eating kai moana, or those operating land-based service businesses in communities that are reliant on marine activities like fishing and tourism. Such people have a direct stake in our oceans, as much as those who are out on the waves.

Others may also appreciate the sea from a distance. A sea view, for example, can dramatically increase the value of a property. Such viewshafts can be an important consideration when it comes to urban planning and tourism ventures, even if people are not actually on the water. And even when the sea is out of sight it is not out of mind. To many people it has existence value. We like that we are never far from the

coast – its health is important to us. It informs our identity as a nation. The flipside of that is that it can distress us if the sea becomes degraded or inaccessible, even if we do not experience it on a day-to-day basis or harm cannot readily be seen.

The sea creates many benefits for people even if they do not use it directly, including amenity value and the flow of economic benefits from marine resource use. It also has considerable existence value.

More tangibly, the sea is a constant source of what some describe as “environmental services”. We often take these environmental services for granted because we do not see them, but we would be much worse off without them. For example, the sea provides local temperature regulation. It gives us a buffer against global warming by absorbing a significant portion of both heat and carbon dioxide from the atmosphere.⁷² Studies have also suggested that seabed sediments are the largest sink of carbon in the world.⁷³ Marine habitats (eg mangrove forests) trap sediment from land, and habitats also form a key part of the nutrient cycle. Marine filter feeders provide valuable filtration services to “clean” the water coming off the land.⁷⁴ Some habitats, such as mangrove and kelp forests, provide natural buffers against storm surges and erosion. They sequester carbon and produce oxygen. The sea not only provides kai moana directly in the form of fish; it also provides the habitats that shelter and support fish in their growth and development.

These ecosystem services, just like any other services we obtain, are all ways in which we *use* the marine environment even if they are not uses that involve us *intervening* in it. As such, by protecting oceans *from* environmental impacts that threaten ecosystem services, we are also “using” the marine environment in a very tangible sense, even if this is seldom given a dollar value. It is particularly important to note that we are “using” the marine environment’s assimilative and diluting capacity when we discharge or dump contaminants like sediment, wastewater and litter in it.

The sea and marine life within it provide extensive ecosystem services, including temperature regulation, water purification, carbon sequestration, oxygen production, food, flood management and nutrient cycling.

2.5 Conflict in the marine environment

It is not surprising that human uses of the marine environment can, and increasingly are, coming into conflict. That is particularly the case where activities need to be spatially defined, or where there is a shared resource being used in different ways. People may wish to use the same “resource” as others (eg fish), or they may use them in ways that have impacts on each other (eg excluding fishers from protected marine space).

Commercial activities can conflict with each other, but another notable tension has been between commercial, recreational and customary uses. That is particularly prominent in the case of wild fish harvest activities, where all three types of users have a stake in a shared resource but use it for quite different reasons. But tension is not limited to fishing; for example, conflicts have arisen between seabed mining operators and surfers concerned about mining impacts on wave action and surf breaks.⁷⁵ There are concerns about access to the coastal marine area for recreation, spiritual connection and enjoyment when spatially fixed activities like inshore aquaculture are authorised. One can foresee many more such conflicts as human uses diversify and technology develops. Often these conflicts can be worded in terms of protecting the environment from

particular kinds of use but underlying them are very human concerns about who gets to enjoy what from the ocean.

There may also be potential tensions between Māori as commercial operators under a Western capitalist system and more traditional Māori as kaitiaki of their rohe moana.⁷⁶ This is arguably a product of the system heading in two directions – first, the “Westernisation” of the management framework (eg through the creation of quota property rights and their use as currency to settle te Tiriti grievances) and the more recent and ongoing moves to accommodate more traditional Māori values and power-sharing through co-governance arrangements. This dynamic is still playing out. For example, commercial fishing plays an important role in the wellbeing and development of many iwi and hapū, but some Māori communities want to see constraints put on commercial operators (including those using settlement quota) to help preserve their local marine areas and fish stocks.

A spotlight on tensions in the moana

Conflicts and tension are not only between Māori and other interests but also between competing interests within Māori society. For example, Annette Sykes has been critical of the proliferation of a “Māori elite” model where a select few people monopolise the seats at the table with the Crown and control assets and resources.⁷⁷ This can clash with a desire for ground-up or local forms of control or management. Another tension that can occur is between the interests of iwi who hold commercial fishing quota and customary fishers or kaitiaki who wish to use or protect the resource for different purposes; some have argued that fishing under the quota management system (QMS) has depleted abundance and biodiversity, making it more difficult to acquire kai moana.⁷⁸ For better or for worse, the fisheries settlement has entrenched iwi within the QMS system of private property rights.⁷⁹ Tensions are also arising as the courts determine which group has mana whenua status or claims to tikanga-based rights (eg for customary marine title) over marine space, although there has been recognition that such rights can overlap and exist in harmony rather than be exclusive or in competition.⁸⁰

It is possible to see the tension between human activities on the one hand, and environmental protection on the other, as another manifestation of conflicting “uses”. For example, some may wish to “use” the marine environment as a protected area, while others may wish to use it for

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Oyster farm, Mahurangi harbour

fishing. But this undersells the importance of environmental protection, in assuming that it is just another interest group to be accommodated. The reality is that ecosystem health is vital for all humanity, not just those who have taken it upon themselves to advocate for its protection. Those are quite different things.

Conflicts can arise in the marine environment where different activities seek to use the same space or have impacts on each other. However, it would be wrong to frame environmental protection as just one more “use” to be accommodated or negotiated.

As outlined above, the oceans have clear value for humans. But do people need to value the sea for it to *have* value? That is a deeper normative question (see Chapter 7), and depends on one’s worldview. But it would be remiss of us to leave the impression that the oceans are there only for people. While we are unique in many ways, human beings are ultimately one species alongside thousands of others that belong in the oceans more than we do. To many, therefore, the oceans and the life they support have intrinsic value in the same kind of way that a human life does. This notion of intrinsic value is also akin to te ao Māori, where te moana is linked to people through whakapapa and whanaungatanga (relationship, kinship, sense of family connection).

Te moana has intrinsic value, not just instrumental value. For Māori, its value lies in whakapapa and whanaungatanga – it is not just a resource to be used, but rather an ancestor to be treasured and looked after.

2.6 Problems in the marine environment

The government’s environmental reporting makes for grim reading. It focuses on what we might call “biophysical” problems: traditional “environmental” issues concerning pollution, ecosystem health and the depletion of resources. However, it is important to note that there is no sharp distinction between the biophysical, the metaphysical, and the social, including (but not exclusively) in te ao Māori. What impacts on the health and mauri of te moana also impacts us in many ways.

The problems identified in this section can all be described as problematic *outcomes* – ones that can be observed in a physical sense “on the ground”

so to speak. There are also quite different problems with the marine management system *itself* (how it is structured and how it operates); these are looked at in Chapter 3.

Marine ecosystems, and the life within them, are being negatively impacted in many ways. While it is hard to generalise with respect to the thousands of ecosystems and habitats across the country, the available data for specific marine species is concerning at a national level. Some improvements have been observed in recent years (whether because of actual improvement or better data),⁸¹ but the overall trend is one of decline.

First and foremost, biodiversity is in crisis.⁸² Aotearoa New Zealand is a global hotspot for marine biodiversity⁸³ – of the 12,820 marine species that have been scientifically assessed, over half occur nowhere else in the world, though this figure is likely to be much higher given that many species are yet unknown or unassessed. Direct human-induced pressures causing biodiversity decline include exploitation, pollution, invasive species, changes in land and sea use, and climate change.

A recent national conservation status assessment found that 90 percent of seabirds and 80 percent of shorebirds are at risk of, or threatened with, extinction.⁸⁴ Based on a 2019 assessment, 10 out of 45 assessed species of marine mammals are in the same category, with 30 assessed species of marine mammals classified as data deficient.⁸⁵ Orca, Bryde’s whale, Hector’s dolphin and the southern elephant seal are in particularly dire straits. The threatened and nationally vulnerable Hector’s dolphin is estimated to have a population of only 15,000.⁸⁶ But the Māui dolphin (a subspecies of the Hector’s) is on the brink of extinction. It is estimated that this iconic animal has only 57 adults left⁸⁷ making it one of the most threatened dolphins in the world.

These trends have not occurred by chance, or through natural change. We, as human beings, are responsible. Marine mammals, for example, are directly impacted by a wide range of human activities, many of which are still occurring and even increasing. Although hunting of marine mammals is currently prohibited,⁸⁸ other activities indirect mortality in the course of other activities remains lawful, such as when they are legally kill animals directly, such as when they are inadvertently caught in fishing nets or are struck by ships. While the trend may be one of slow improvement, the entanglement of one Māui and 29 Hector’s dolphins in the decade ending 2018 is still cause for concern, given the small populations that remain and slow reproduction rates.⁸⁹ Could one reasonably expect that figure to be zero?⁹⁰

Bryde's whales living in the Hauraki Gulf have been subject to frequent ship strike in the past, and although this has reduced in recent years due to voluntary speed reductions,⁹¹ increased numbers of ships⁹² are linked to an increased likelihood of collision with marine mammals.⁹³ Shipping and other underwater activities, like mining and seismic surveying, can also interfere with marine mammals and other marine life through noise pollution,⁹⁴ and people's activities on beaches (such as driving and dog-walking) can threaten animals like shorebirds, especially during vulnerable life stages such as breeding and nesting.⁹⁵

We can also look with concern at figures for seabird bycatch – the non-target populations that arguably suffer most from commercial fishing activity. Although numbers are reducing, it is estimated that over 4000 birds were caught accidentally in fishing gear during the 2016/2017 fishing year. They include iconic, long-lived and vulnerable species like albatross (which have very low reproductive rates).⁹⁶ These figures are concerning enough, but it is hard to establish the real number due to low observer coverage on commercial fishing boats and a lack of meaningful surveillance of recreational fishers. Fishing can also imperil the food sources of some seabirds through fishing down “bait” fish.⁹⁷

Fishers take a range of other species that are not targeted, including non-QMS fish species and invertebrates such as deepwater corals. In 2017, 65,000 tonnes of marine life were estimated to have been caught as bycatch in offshore fisheries, of which 24 per cent (16,000 tonnes) was legally discarded.⁹⁸ Some fisheries have much greater quantities of bycatch than others. It is very significant in the scampi trawl fishery where the non-QMS bycatch can be double the weight of targeted species harvested.⁹⁹

Marine mammals and other animals can be impacted indirectly by human activities as well. The toxoplasma gondii parasite has been identified as a potentially serious threat to (particularly) female Māui and Hector's dolphins, and was identified in nine dolphins that died between 2007 and 2018.¹⁰⁰ The parasite travels from cat faeces into the dolphin's habitat through run-off, rainwater and wastewater and infects the dolphins when they consume contaminated water or fish.

Modern society's rapacious, industrial-scale fetish for creating disposable plastic products has also led to significant amounts of it being consumed by marine animals. Once ingested, plastics can block the digestive systems of birds, induce reproductive problems, cause poisoning, and block the uptake of nutrients.¹⁰¹ It is disturbing that something as innocent-sounding as a child's lollipop stick can end up as one of the main marine plastic pollutants noted in national level environmental reporting.¹⁰²

Of course, iconic and threatened/protected species like whales and dolphins do not exist in isolation. They are part of wider marine ecosystems, and rely on healthy habitats comprised of less well-known species and physical features. Unfortunately, these too are suffering, which not only puts further pressure on threatened species, but also flirts with the possibility of wider ecosystem decline and collapse. The extinction of a specific species is morally abhorrent, but the collapse of entire marine ecosystems is a disaster – not only for people with a strong environmental conscience but also for society as a whole.

The Ministry for the Environment has recorded that many biogenic habitats are under threat or degrading, including seagrass meadows, kelp forests, bryozoan thickets, corals, shellfish beds and tubeworm mounds.¹⁰³ The Parliamentary Commissioner for the Environment has recently investigated our estuaries, finding that many are in a poor state across a variety of habitat types.¹⁰⁴ Deep-sea habitats also face threats, but the proximity to land and heavy use by people means nearshore marine environments face the greatest pressures and rates of change. For example, environmental reporting has pointed out that green-lipped mussels in Ōhiwa Harbour declined in number from 100 million to half a million in just one decade. They were also:¹⁰⁵

once a dominant habitat growing on soft sediments in areas like the Firth of Thames, Hauraki Gulf, and the Kaipara Harbour. By the end of the 1970s, they were considered mostly ecologically extinct from soft sediment environments.

Our oceans are facing a number of problems. In particular, a number of species are declining, threatened or endangered, and ecosystems are experiencing significant stress. We are faced with the prospect of species extinctions and exceeding ecological tipping points, with flow on effects for human health and wellbeing.

While ecosystem degradation is not uniform across the country, enough is known to conclude that it is a reality. What is sometimes harder to establish is what exactly is causing it, and in what measure, in a particular location. Pressures on ecosystems come from all directions; there is no simple chain of causation. Yet wherever we look, there are human-induced pressures such as fishing, invasive species, plastics, sediment, nutrients, chemical pollution, tourism, coastal development and climate change. These pressures compound each other in the marine space.

Fishing

Although Aotearoa New Zealand is often held up as a poster child for sustainable fisheries management, it is not abundantly clear that we deserve that distinction, and in any case that status is relative to other countries, some of which are struggling even more. In some areas we are doing well. Reporting points out that 83 percent of *routinely assessed* fish stocks were, in 2020, considered within safe limits.¹⁰⁶ However, the remaining 17 percent were considered overfished, and nine stocks were considered to be collapsed.¹⁰⁷ Periodic collapse and rebuild of even this number of stocks – which are part of wider ecosystems – is not ideal. For example, East Coast tarakihi fish stocks were thought to be less than 16 percent of their virgin biomass in a 2019 stock assessment.¹⁰⁸ Although these stocks are now (hopefully) entering a period of rebuild, the fact that stocks were allowed to get so low, more than 30 years after their introduction into the QMS, is indicative of a system that is far from perfect.

It is an even more dire situation with some shellfish stocks. The biomass of historically important scallop beds in the Hauraki Gulf and Spirits Bay are now only five and two percent respectively of what they were when the last surveys were undertaken a decade or more ago, and most of the area has now been closed to fishing.¹⁰⁹ Moreover – and most significantly – many stocks are *not* routinely assessed, which is a hugely important caveat.¹¹⁰ And for those that are, there are questions about the adequacy and currency of the information on which assessments are based.¹¹¹ The ecological reality for many stocks remains murky.

Local depletion also matters. Stocks are assessed across very large areas (quota management areas (QMAs)), and while they may be deemed healthy overall, that may not be the case in particular places. Fish populations are part of local ecosystems and provide food and other values for local communities. In other words, it matters *where* fish are present within the areas in which stocks are managed. Communities and tangata whenua have responded to such concerns by calling for rāhui and closures to rebuild local kai moana resources.¹¹²

The point in time that fishing occurs in relation to the life cycles of fish is also important, as is the size and age of the fish that are caught. As the Ministry for the Environment has pointed out:¹¹³

Fishing changes the population structure of a species as well as reducing the overall number of fish. Fishing changes behaviour, leads to different size or sex ratios, and can affect population genetics. Population changes can have cascading effects through the food

web by affecting the dynamics of predation, food availability, and competition for food and habitat.

Cascading impacts of harvesting can be seen where the depletion of adult snapper and crayfish (which eat kina) results in high kina numbers, which in turn feed on kelp. In some cases, this can cause kelp to disappear altogether, tipping an ecosystem into a completely different state (described as a “kina barren”). This affects not just the kelp, but the myriad of other marine species that rely on the kelp as both habitat and a food source.¹¹⁴ The phenomenon has been notable in the Hauraki Gulf and Bay of Islands. Luckily we know that, in some cases, the system can slowly recover once fishing pressure is removed.¹¹⁵

How we harvest fish also matters. Commercial fishing methods like bottom trawling and dredging not only remove vast quantities of marine life, they can also damage the underlying biogenic habitat (eg living reef structures), change the non-living structure of the seabed, and resuspend sediment that then blocks light and smothers remaining benthic organisms. Recovery from such activities, if it happens at all, takes long periods of time; in the inner Hauraki Gulf, mussel beds have still not re-established despite dredging having not occurred for half a century.¹¹⁶ Although there has been a small downward trend over the past decade or so, large tracts of the country’s marine area are still subject to trawling. The area affected each year comprises some 90,000 square kilometres (equivalent to around 80 percent of the entire North Island). New areas are still being trawled meaning that the cumulative trawl footprint is ever increasing.¹¹⁷



Kina barren, Bay of Islands

A spotlight on seafloor-damaging fishing methods

Some fishing gear and practices can cause physical damage to the marine environment, as a side effect of harvesting fish and shellfish. This is particularly the case when heavy fishing gear is dragged across the seafloor. Three types of fishing methods undertaken in Aotearoa New Zealand involve this practice: bottom trawling, Danish seining and dredging.

Bottom trawling is the most commonly used fishing method in the country, being used to catch just under half the country's total commercial harvest.¹¹⁸ It typically involves dragging a large net across the seafloor with associated equipment. This includes two large heavy doors which keep the mouth of the net open, bobbin chains which weigh down the leading edge of the net and roll along the seabed, and ropes and wires that connect the gear together and to the fishing vessel. Because the catch efficiency of trawling relies on close and persistent contact with the seabed, bottom trawling can have substantial adverse impacts on the seabed and sensitive habitats.¹¹⁹

Danish seining involves dragging weighted lines across the seabed in a circular formation to herd fish into the net. Because the gear dragged across the seabed is lighter than that used for bottom trawling, and the area impacted is smaller, the physical damage is less. However, it can still be significant.

Dredging involves dragging a steel box or bag across the seafloor to harvest shellfish living within the sediment. The area impacted by dredging is much smaller than with trawling, but the intensity of disturbance in affected areas is greater.¹²⁰ It does not just impact biogenic habitat – it can alter the geological structure of the seabed too.

The physical disturbance caused by dragging gear over the seabed results in a range of ecological impacts. In the first instance, organisms that grow above the seabed such as mussels, corals, sponges and bryozoans are physically damaged. This is significant because the three-dimensional benthic habitat these species create provides settlement sites for larvae, nursery areas for juvenile fish, and habitat and food sources for a wide range of organisms. Bottom contact fishing methods also suspend sediment in the water column, reducing water clarity, smothering

organisms when the sediment settles and, as heavier particles fall to the seafloor faster than fine particles, potentially changing the seafloor surface to a fine mud which (in coastal areas) is more susceptible to suspension through wave action.

Overall, benthic communities decrease in density and diversity as a result of such disturbance.¹²¹ In some cases, bottom contact methods can push the seabed over a “tipping point”, where it changes to a different (and less diverse) stable state and will not naturally recover. That includes where there has been physical alteration of the seabed itself, making recolonisation and recovery by benthic species much harder. Local examples of where dredging has helped “tip” a marine system into a different state include the Hauraki Gulf (with mussel dredging),¹²² Tasman and Golden Bays (with scallop dredging)¹²³ and the loss of epifaunal reefs in Fouveaux Strait (with oyster dredging).¹²⁴

Fishing activities are placing stress on marine ecosystems in a variety of ways, including through removal of fish from ecosystems and damage to habitats.



Scallop dredge, Whitianga harbour

Raewyn Peart

Invasive species

Other types of sea-based activities are also impacting on marine ecosystems. Invasive non-indigenous species – of which there are now upward of 200 in Aotearoa New Zealand – can predate on, compete with or crowd out indigenous species, fundamentally changing the nature of habitats and the species they support. They can also have significant impacts on human activities like aquaculture and fishing. Most commonly, and despite best biosecurity efforts, these unwanted visitors arrive on the hulls of ships or in ballast water. As shipping increases, so does the risk of both incursion and subsequent spread around our shores.¹²⁵ Once established, it has proved extremely difficult to eradicate some invasive species. A brown seaweed called *Undaria pinnatifida* has proved particularly problematic, as has the sea squirt *Puyra doppelgangeri*.¹²⁶

Invasive species pose threats both to marine ecosystems and human activities in the marine environment.

Plastics

As well as being a problem from the viewpoint of particularly valued species like birds and marine mammals, and from an aesthetic point of view (they comprise the majority of litter around our coasts),¹²⁷ plastics from both marine and land-based activities are impacting on broader ecosystem health. They include micro-plastics, which are now well entrenched in the marine food chain, having been found in finfish and shellfish.¹²⁸ We do not fully understand the long-term impacts that the presence and ingestion of microplastics will have on ecosystems or human health – after all we are at the very top of the marine food web, the point where plastics have accumulated most. But some studies have made concerning findings; for example, microplastics have been linked to poor nutritional outcomes and mortality in plankton¹²⁹ and altered reproductive behaviour in shellfish like oysters.¹³⁰

In other words, microplastics (and even smaller “nano-plastics”) put additional pressure on parts of the marine food chain that are vital to healthy and stable ecosystems. Plastics are not just a problem when we discard them (eg as disposable packaging or single use nappies). They are more pervasive than that, which suggests human society may need to rethink its entire relationship with plastic products rather than just treat them as a waste stream that can be managed. For example, a significant source of plastic pollution comes from tiny fibres of what has become ubiquitous polyester and other synthetic clothing, which enters the sea

from people’s washing machines via wastewater flows. One study has suggested that up to 700,000 fibres could be released from an average six kilogram wash load of acrylic fabric.¹³¹ Some of these microplastics are small enough to bypass processing and enter directly into the marine environment.¹³² However, even particles that are removed during wastewater processing may make their way to the marine environment eventually via the disposal or use of wastewater sludge.¹³³

Plastics pose a threat to marine life in a number of ways. Perhaps of greatest concern are the risks posed by microplastics, which are now pervasive in the marine environment and the ultimate effects of which are not well understood.

Sediment

Some land-based inputs are not in themselves problematic, but it is their *extent* or *rate* that is having an adverse effect. For example, the land has always produced sediment, with significant volumes entering the coastal environment even from land that has full indigenous cover, particularly during and after storm events. Some marine environments were, prior to human settlement, already defined by a soft sedimentary seabed, and these support healthy ecosystems; erosion is a natural process. Catchments and estuaries also have highly variable natural sediment accumulation rates across the country.¹³⁴

However, the past one hundred and fifty years has seen an explosion in the volume and rate of sediment entering the marine environment. It has been noted that “New Zealand has one of the highest rates of sediment runoff in the world; equivalent to around 35 million truckloads of sediment entering the sea annually.”¹³⁵ It has accumulated, especially in some estuaries, at an unprecedented rate. Environmental reporting has noted, for example, that:¹³⁶

Inter-tidal sedimentation rates have generally increased and become highly variable since European settlement. In estuaries and harbours across the Waikato region, historical sediment accumulation rates were less than 0.5 millimetres per year. After European settlement, rates became unstable, reaching almost 200 times historical rates.

This is far from an isolated example.¹³⁷ We cannot place the blame at a door of a single sector or industry; contributions come from many sources, including agriculture, horticulture, commercial forestry and urban

development. Earthworks, often involving mass clearance of vegetation and deep disturbance of the soil, have had an impact disproportionate to the land area they occupy.¹³⁸

Irrespective of where it comes from, large amounts of deposited sediment can smother, stress and kill benthic life. Suspended sediment (contained in the water column) can impact the amount of light reaching photosynthetic species on the seabed such as seaweed,¹³⁹ and impact fish spawning and survival.¹⁴⁰ Food webs are affected by all of this, in negative and often unpredictable ways. And (as described later), especially in urban and intensive farming environments, sediment can also bring with it an increasing, and increasingly varied, confection of chemical contamination flowing from land and waterways.¹⁴¹ The seas get two types of pollutants for the price of one.

Planting trees has undoubtedly helped to stabilise soil that would otherwise have flowed to the sea as a result of land clearance and land use change, but the purpose of the tree matters – if every 30 years we allow extensive clear felling within a catchment (of plantation trees planted all at the same time), then such planting will have been of questionable value from a marine perspective (large bursts of sediment can be more harmful

than slow release). And while local conditions matter for how much sediment ends up where (including how energetic the coastal environment is; the slope of land; the intensity and frequency of precipitation in catchments; mitigation measures; the nature of the soil; and the presence of sediment-blocking habitats like mangroves), it is evident that in many places these factors are either not well understood or are not being tailored to the needs of our marine ecosystems. Marine life can only take so much stress.¹⁴²

What resilience remains in marine ecosystems will, in many places, be further strained by a changing climate. In some places this may see heavier and more frequent rainfall (and therefore more sediment running off the land from a variety of activities) coupled with other climate-related stresses on ecosystems (see further below).

Sedimentation is a significant problem, especially in estuaries. A lot of sediment comes from land, including through urban development, forestry operations and agricultural activities.

Raewyn Peart



Sediment-laden seawater at the Tukituki River mouth

Nutrients

Nutrients are a vital part of marine productivity. Indeed, the presence of nutrients explains why some areas have an abundance of marine life. However, the concentrations of nutrients entering the sea from agriculture, horticulture and (in places) aquaculture, have in some locations gone beyond what marine ecosystems have become accustomed to or are able to cope with while maintaining a stable or productive state. Intensification of agriculture over the last decade or two has exacerbated impacts.

While environmental reporting indicates that total phosphorus levels have decreased in two thirds of monitored coastal and estuarine sites,¹⁴³ and over four fifths of sites have low concentrations of chlorophyll-a (meaning that “the effects of pollution are considered to be minimal”),¹⁴⁴ many monitored sites have negative trends for total nitrogen (35 percent of sites), ammoniacal nitrogen (41 percent), and dissolved oxygen (40 percent).¹⁴⁵ This is of concern, as seawater is generally “nitrogen-limited” when it comes to producing marine life so it can be affected by increased nitrogen inputs.

Substantial and largely unchecked expansion and intensification of urban and agricultural activity, particularly in some catchments that are intensely used, has caused eutrophication – excessive nitrogen enrichment – in a number of estuaries. This can cause algal blooms, reducing oxygen levels which can kill fish, and throw food webs out of balance. Blue-green algae (cyanobacteria) can be toxic to marine life and people.¹⁴⁶

Catchments are a substantial source of nutrients entering the marine environment. While nutrients from land are an important part of the natural cycle, an excessive amount entering some places is having adverse impacts, including through the eutrophication of estuarine environments and embayments.

Chemicals and pathogens

Many other kinds of contamination come from catchments. While some overall measures of chemical pollution at a national level show signs of improvement,¹⁴⁷ it is difficult to generalise, not least because we understand so little about the long-term impacts of some pollutants. Pharmaceutical and cleaning products, antibiotics, hormones and so forth – the list is growing as we continue to concoct new chemicals – are entering our seas with potential impacts on ecosystem and human health. For example, studies have linked medicinal waste to problems with feeding, immune response and habitat attachment in shellfish.¹⁴⁸

We understand a lot more about some chemicals and pathogens due to their immediate and obvious impacts on human health. Faecal matter and the presence of disease-causing pathogens is routinely monitored and leads to action like the closure of beaches.¹⁴⁹ Wastewater overflows – where raw sewage discharges into the oceans – can occur within high density urban areas and near recreational beaches and kai moana beds.¹⁵⁰ While pastoral catchments record *E.coli* levels over a dozen times higher than indigenous forested areas, that figure is much greater in urban waterways. Much of this ultimately reaches the sea.



Wastewater pollution in Akaroa harbour

Aside from the occasional overflow event, people may be used to thinking of wastewater as being “dirty” but acceptable (as long as it is treated). New Zealanders are also arguably conditioned to think of stormwater as just a natural and therefore “clean” phenomenon (we are simply channelling it away from where it could cause damage). Neither of those things are true from the perspective of the marine area.

Stormwater refers to the runoff of rainfall from impermeable surfaces such as roofs, driveways, footpaths and roads. In urban areas, runoff usually enters an urban stormwater network which typically pipes the water into the sea. It is not “treated”, it is simply diverted. And yet, especially in urban areas (where hard infrastructure like gutters and drains collect and channel it), its main effect is to gather significant contamination together from many surfaces into one channel, and release it into a single spot in a river, onto a beach or into a marine area. This is not just flood control; it is also waste disposal.

Stormwater can be contaminated by multiple sources including construction sites, motor vehicles, domestic properties, domestic animals and spills (see the spotlight below). Most would not give this a second thought as they hose down their chemically cleaned car, or watch as rainwater washes heavy metals off their roof.



Stormwater outlet, Titahi Bay, Wellington

A spotlight on stormwater

Stormwater carries with it a wide range of contaminants including “litter, sediment, nutrients, metals, fuels, oils, polycyclic aromatic hydrocarbons (PAHs), legacy pesticides (such as DDT, lindane, dieldrin and chlordane), legacy synthetic compounds (such as PCBs), newer emerging organic contaminants (EOCs) including pharmaceuticals and pesticides, and pathogens”.¹⁵¹ It is a cocktail of contaminants.

Stormwater usually carries sediment, which can be at high levels when earthworks are being undertaken within a catchment. The sediment, in turn, carries with it other toxicants which are bound into the soil particles. Stormwater is also often contaminated with raw sewage, which can occur when wastewater systems overflow, or when accidental or illegal connections are made between wastewater and stormwater pipes. This can result in the presence of pathogens and elevated levels of nitrogen and phosphorus. Domestic and feral animals can also introduce pathogens into the system such as toxoplasma from cats which is affecting the Māui dolphin (see earlier). In addition, litter is often carried down stormwater pipes and can result in plastic fragments entering the marine environment.¹⁵²

Roads are a major source of stormwater contaminants due to residues left by vehicles and road building materials themselves. Vehicles deposit particles of copper from brake linings and zinc from tyres on roads. Engines and exhaust systems also deposit particles of oil, grease and fuel. Exhaust gases, tyre wear, oil leaks and the wear of tar binders and asphalt on roads all contribute to the accumulation of PAHs. Historically there have been elevated levels of lead in stormwater due to its use as an antiknock additive in petrol, although this use has been banned since 1996.¹⁵³

Heavy metals also come from a wide range of other sources due to their extensive usage in the fabrication of building materials. As well as being deployed as a decorative building material, copper is used for pipes and wires, in the manufacture of metal alloys and metal plating, and as a wood preservative and fungicide. Zinc is used widely in galvanised iron roofs and as an alloy.¹⁵⁴ In Figure 2.2 below, we outline some of the contaminants that are often found in stormwater and their impacts on marine environments.

Type	Example	Effect
Litter	Plastic bags, containers, nurdles	Mortality to marine life, transport of other chemicals and organisms, visual
Sediment	Total suspended solids	Visual (fish), mortality to marine life (burial), reduction in photosynthesis and primary production
Nutrients	Nitrogen, phosphorus, nitrate	Algal blooms, oxygen depletion, toxic effect
Microbial contaminants	Pathogenic bacteria, viruses	Risk to human health when drinking freshwater, bathing and eating shellfish
Biodegradable organic materials	Oxygen depletion in rivers, lakes and coastal environments, grease	Fish death, odours
Trace organic materials	Fuels and oils, PCBs, polycyclic aromatic hydrocarbons (PAHs), solvents, detergents, other emerging organic contaminants (EOCs)	Toxic effect, aesthetics, bioaccumulation in the food chain
Metals	Mercury, lead, cadmium, chromium, copper, nickel	Toxic effect, bioaccumulation

Figure 2.2: Typical constituents present in stormwater discharges with associated effects¹⁵⁵

Wastewater and stormwater can contain a cocktail of chemicals and pathogens that pose threats to marine life and ecosystems. People do not fully understand the potential impacts that some contaminants and novel chemicals could have.

Tourism

Although it can be hard to define exactly what a “tourist” activity is, international and domestic visitors to an area can have significant impacts. Tourism contributes to cumulative environmental pressures above and beyond a single activity’s impact. That can be the case even if tourist facilities like resorts are themselves “green” – the reality is that a larger number of people in a place will cause impacts, especially in sensitive environments.

Infrastructure issues can contribute to environmental degradation. If there is not infrastructure to support tourists’ needs, this can lead to issues with wastewater and litter. Conversely, the existence of infrastructure itself can be damaging through the physical alteration of the coast. Increasing infrastructure to meet demand can in turn result in increased numbers of tourists, drawn by the presence of amenities. This can lead to a phenomenon called “recreational succession”, where as an environment becomes more degraded by tourists, people who value environmental quality move on to other locations, and the tourist population skews towards those with lower environmental standards.¹⁵⁶

Direct interaction of tourists with the marine life and habitats can also be damaging. Marine species can be affected by ship strike, recreational fishing, and noise pollution. Habitats can be directly damaged by people walking on the intertidal zone or dropping anchors onto the seabed. Urban lights can confuse hatchlings and increase mortality rates. Vehicles and pedestrians on the beach can disturb and trample nests.

Contribution to climate change is another concern for marine tourism particularly due to the impact of greenhouse gases on our oceans (see below). For most international tourists, Aotearoa New Zealand is a long-haul destination.¹⁵⁷ A tourism strategy that encourages greater visitor numbers will increase flight emissions and consequent global warming. These costs can be hidden as emissions from international flights and are not reflected in the country’s carbon budget.¹⁵⁸

Coastal development

Some of Aotearoa New Zealand’s most degraded marine environments are estuarine, particularly those with large catchments flowing into them.¹⁵⁹ That reflects the significant impact that land-based activities are having upstream. Population increases and economic growth have seen development explode along great swathes of our coastlines. This urban and infrastructure development produces significant amounts of sediment, much of which ends up in the sea. Contaminated runoff from

coastal roads and industrial sites also enters the marine environment. We are even starting to see coastal landfills being eroded to the point that they disgorge their contents directly onto beaches or into the sea. We cannot even begin to know what is in there – there are often no records at all.¹⁶⁰

Development and reclamations remove an entire physical part of the marine environment in some places. They also often push human activities and hard structures like concrete walls, wharves and port infrastructure right up to (and into) the sea, leaving little or no inter-tidal habitat for shorebirds and other creatures to live and breed.¹⁶¹ Even where some space is left, such as by setting back residential development, the risk is that rising sea levels¹⁶² and the temptation to provide hard defences like seawalls and groynes to protect private property will mean that this ecologically valuable “middle ground” will disappear over time. Conversations about managed retreat versus protection on land are,

therefore, as important for the health of the marine environment as they are to the safety of people and property.

Coastal development poses risks to the marine environment, including through the clearance of land and generation of sediment, the consequent runoff of chemicals from dense human settlement, and the physical removal or change of coastal habitat.

Climate change

While rising sea levels are one important manifestation of climate change, they may not be the most concerning from a marine perspective. There is an important physical and chemical relationship between sea and atmosphere which means that, as the planet warms, our oceans are warming too. The oceans absorb a significant amount of global heat.¹⁶³ The Ministry for the

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Exposed landfill, Kaiaua

Environment reports that over the last 40 or so years, the average increase in temperature of our seawater was 0.2 degrees per decade. That is significant and the speed of increase is likely to accelerate in the future.

With a warming ocean comes a number of potential impacts on marine life and ecosystems. Some are direct – for example, some species' growth and reproductive cycles may be impacted,¹⁶⁴ including key species like plankton that form the basis of the food chain.¹⁶⁵ Mobile species like finfish may move elsewhere (an important thing to remember for the agility of fisheries management and its implications for equity in fishing rights). Other species better adapted to increased temperatures may take their place, with uncertain consequences for habitats and food webs. Species not endowed with the ability to move, may simply disappear. Impacts may not be universally negative – for example, it is predicted that an increase in phytoplankton around the Chatham Rise may stimulate fisheries.¹⁶⁶

Yet a warmer environment may also mean some species, will no longer have the resilience to continue the fight against other stressors such as pollution, invasive species or severe storm events. Scientists have reported that in some places bull kelp, decimated by an unusually long period of warm waters during 2017-18, failed to recover in the face of competition from the invasive seaweed *Undaria*.¹⁶⁷ That could become a concerning pattern; new species have been observed making forays into inshore waters as it warms.¹⁶⁸

Climate change does not manifest uniformly across time or space. In some places,¹⁶⁹ an increasing risk of devastating marine heatwaves year on year, or an increasing frequency of severe storms, raises the prospect of ecosystems tipping over ecological thresholds abruptly rather than adapting or shifting (or declining) slowly. Some have pointed to patchy or depleted shellfish beds being more vulnerable to the physical disturbance of storms and extreme wave events – put simply, fewer and more spaced out individuals lack safety in numbers.¹⁷⁰ A lack of biological diversity in a community generally erodes resilience.¹⁷¹

Climate change does not just manifest in a warming ocean. Our oceans are also growing more acidic, a chemical reaction that occurs as the water column absorbs ever increasing amounts of atmospheric carbon dioxide.¹⁷² (Incidentally, nutrient runoff from land can also contribute to ocean acidity.)¹⁷³ Alarmingly, it is thought that the oceans have already absorbed up to 50 percent of global emissions since the industrial revolution.¹⁷⁴ As a result, they have already become 30 percent more acidic,¹⁷⁵ with Aotearoa New Zealand measurements showing a 7.1 percent increase in the past 20 years.¹⁷⁶ That process is continuing; oceans are

estimated to be absorbing over a quarter of the carbon dioxide in the atmosphere,¹⁷⁷ and it is predicted that pH levels around Aotearoa New Zealand may decrease by as much as 0.4.¹⁷⁸

Acidification of the oceans adds a whole additional layer of impacts on marine ecosystems. In particular:¹⁷⁹

Acidification of seawater causes major problems for marine calcifying organisms, both large (eg calcareous macroscopic seaweeds, shellfish) and small (eg individual coral polyps, microscopic phytoplankton) because the lower pH both impairs the ability to build a shell, and dissolves existing calcareous shell. Scientists have established that ocean acidification will affect all primary producers – from microscopic phytoplankton to giant kelp forests, as well as higher trophic levels, including coral reefs, shellfish and fish.

One study found that the shell of the tiny sea butterfly – said to be the “ocean’s canary in the coal mine”¹⁸⁰ – dissolved in just 45 days when placed in sea water with pH levels anticipated for the year 2100.¹⁸¹ In short, acidification may have potentially enormous impacts on the primary productivity¹⁸² of the marine environment. *Our Marine Environment* has pointed out that edible and farmed shellfish like oysters, pāua and mussels, which are valuable elements of ecosystems and have significant commercial value, are particularly vulnerable.

In short, climate change has impacts on multiple related fronts; a warming and acidifying ocean may directly reduce underlying ecosystem resilience (because species struggle to survive in those conditions), but climate change can also exacerbate the events that can end up sending those already weaker ecosystems over the edge (eg increasing frequency of storms and wave energy, the movement of invasive species, and increasing large scale sediment runoff events from land).

It is not the role of this report to go into detail about where anthropogenic greenhouse gas emissions are *coming from*. Suffice it to say, most are from land, rather than marine activities. Indeed, most are from other countries.¹⁸³ Notwithstanding this, there are opportunities and imperatives to reduce the discharge of greenhouse gases at sea. The examples that may come to mind most readily are emissions from shipping and fishing vessels, which rely on fossil fuels. But research is now highlighting the impact that bottom trawling can have on greenhouse gas emissions. One recent international study, published in *Nature*, found that bottom trawling produces as much carbon dioxide globally as the entire aviation industry, through releasing it from the seabed into the water column.¹⁸⁴

The marine environment has the capacity to sequester significant amounts of carbon if we look after it – it has been suggested that it may even be higher than our terrestrial forests.¹⁸⁵ Yet warming of the ocean will reduce its capacity to absorb atmospheric carbon, and there is the risk that habitat change due to climate and other stressors may result in the sequestration capacity of marine plant life and other photosynthetic organisms being reduced or lost. In other words, we might lose a significant carbon sink without realising it, contributing to a vicious feedback loop of warming that impacts the oceans even more. Restoring the biodiversity of marine environments has the potential to mitigate climate change; degrading it has the potential not just to forego that opportunity but also to significantly add to emissions by removing carbon sinks.

Climate change poses potentially the greatest threat to our marine environment, through warming seas and acidification. Its impacts are also highly unpredictable. Our use of the marine environment has the potential to reduce or increase the emission of greenhouse gases and the ocean's sequestration potential.

Cumulative impacts

Human pressures on the marine environment interact in unpredictable ways. Stressors from land, sea and climate interact with natural processes and features in particular places over time to produce highly complex

and uncertain outcomes. It is these cumulative impacts that many have pointed out as the real crux of the problem we face.¹⁸⁶

Uncertainty about cumulative effects comes from several angles – the inherent uncertainty about the future, a lack of complete information on important indicators, uncertainty as to how people will behave, and uncertainty as to how localised combinations of stressors and features will play out. But uncertainty is not just about difficulties in predicting the future – it is also about a lack of information about the impacts that have *already* been felt. And in some cases authorities have been forced to admit we know less than we thought we did previously – for example, some taxa have been moved to a status of “data deficient” where they were previously classified.¹⁸⁷ Causal links are often uncertain, too. Although authorities know that many habitats are declining and that species are threatened, and it can be said with confidence that many human activities are contributing to this, it is much more tricky to identify precisely what activities are to blame and to what extent.

The overall effect of cumulative effects is that ecosystems become less diverse, they may shift suddenly to less productive states, they may no longer support species that people value, and they will often fail to provide ecosystem services. The case of the Firth of Thames is a cautionary tale about the cumulative effects that multiple pressures can have on the marine environment, and how impacts are often one step (or more) ahead of our understanding.

Reewyn Peart



Mussel farm, Coromandel

A spotlight on cumulative effects in the Firth of Thames

By all accounts, the Firth of Thames was once a thriving, highly productive and biodiverse marine area. When early spar ships and traders visited the area in the late 1700s they reported immense kahikatea forests and a Waihou River that “abounds in salmon, flounders, breams, soles, and many other fish; also great quantities of crabs, clams, etc”.¹⁸⁸ The extensive catchment draining into the Firth contained the country’s largest natural wetland system which had developed over thousands of years.¹⁸⁹ Sadly, subsequent impacts of forest clearance, wetland drainage, fishing and other human activities have significantly degraded the Firth’s marine environment, and these impacts have been cumulative over time and across different stressors.

From the late 1880s up until the 1920s the landscape of the Hauraki Plains was fundamentally transformed with the felling of trees, drainage of the wetland and conversion of much of the land to dairy farms. This meant that the natural drainage services provided by the wetland, which had filtered sediment and nutrients out of the runoff before it entered the Firth, were critically compromised. The steep land on the Coromandel Peninsula was also logged and mined, further increasing sediment flows.¹⁹⁰ Later flood control works, which straightened the Waihou River and reduced flooding, further served to channel contaminants from the land directly into the sea with little filtering buffer.¹⁹¹

Extensive hard rock mining around Thames and elsewhere on the Coromandel Peninsula took place between the 1890s and 1950s. During this period, substantial quantities of mine waste were dumped directly into the Firth of Thames and mine tailings were also discharged into the Waihou and its tributary rivers which drain into the Firth. These mine tailings typically contained lead, zinc, copper and arsenic. Recent investigations have identified significantly enhanced levels of lead and zinc in sediments across a widespread area of the southern Firth of Thames. Although the levels measured are not high enough to currently pose a threat to marine life, there could be threats to the ecosystem if they were resuspended in the water column by such activities as dredging or bottom trawling.¹⁹²

Much of the seafloor of the Firth of Thames used to be encrusted with thick green-lipped mussel beds. These are thought to be one of the most valuable habitats in the Hauraki Gulf due to the critical role they play within the local ecosystem. “They provide attachment surfaces for algae and immobile invertebrates, refuge for small mobile vertebrates, foraging areas for adult fish and probably act as important habitats for juvenile fish”.¹⁹³ They also filter large quantities of seawater, with the Firth of Thames mussel beds estimated to have potentially filtered the entire water volume of the Firth in less than a day.¹⁹⁴ During the early 1900s, a commercial mussel industry developed. Initially the mussels were hand picked off the rocks, but then steel dredgers were used to harvest them from the seabed. By the early 1960s the stocks had collapsed, the mussel reefs were gone and the seafloor reduced to soft mud. Despite the cessation of fishing, the mussel beds have never recovered, indicative of a marine ecosystem that has gone over an ecological tipping point.¹⁹⁵

These mussel reefs have, in part, been replaced by extensive mussel farms in the Firth of Thames, where mussels are grown on ropes suspended in the water column. However, locating mussels within the water column, and regularly harvesting them, does not provide the same ecological services as permanent natural beds located on the seafloor. Monitoring has indicated that the farms have had only minor impacts on the Firth’s marine ecosystems, with a small reduction in phytoplankton levels, small impact on water temperature and no impact on the clarity of the water (which suggests the mussels are not improving water clarity through their filtering activity, possibly due to the breakdown of the pseudofaeces which binds the filtered sediment once released from the organism).¹⁹⁶

At the same time as the mussel reefs were being exploited, accelerated sediment flows from the Hauraki Plains were also impacting the seabed of the southern Firth of Thames. The area had historically featured gently sloping muddy-sand flats that were largely free of mangroves. But around the mid-1940s, there was a marked shift in the composition of the sediment which changed from sand to mud. This was followed by a rapid expansion of mangroves which were colonising the changed environment. The mangroves are efficient land builders and have since expanded around a kilometre into the Firth. Mangroves

play an important role in the marine ecosystem, but in the Firth of Thames they have replaced “ecologically diverse and productive open intertidal sand and mud” and have reduced the area suitable for roosting shorebirds.¹⁹⁷ The excess flows of sedimentation are likely to be exacerbated by climate change with potential increases in the frequency and intensity of storms.¹⁹⁸

Further seabed impacts to the outer Firth of Thames were caused by bottom trawling undertaken by commercial fishers. For example, in the first half of the 20th century, fishermen reported an extensive bed of horse mussels on a deep water shelf extending from the north of Coromandel Harbour up to Port Jackson and across to Waiheke Island. Longliners fishing above the beds reported large catches, indicating the productivity of the beds. During the 1950s, many commercial fishers in the Hauraki Gulf converted to bottom trawling and “with the trawler boards and sweep wires, they knocked the top off every horse mussel and in about five years they killed the lot”.¹⁹⁹ Horse mussel beds are now known to play a very important role within the marine ecosystem, supporting higher diversity and total abundances of marine life and providing hard strata enabling other reef-forming species such as bryozoans and sponge gardens to establish.²⁰⁰ Harvesting will also have impacted the size and makeup of fish populations in the Firth of Thames, although the extent of such impacts has not been quantified for the area.

The conversion of a wetland ecosystem to intensive dairying not only led to elevated sediment run-off but also increased nutrient loads into the Firth of Thames. “The once clear waters of the Thames, based on historical accounts from European settlement, are now considered a degraded nutrient-enriched environment”.²⁰¹ This has increased plankton production, and therefore the ecological productivity of the water. However, there are warning signs that the enrichment may have gone too far. Water monitoring in the outer Firth of Thames has indicated seasonal oxygen depletion in the bottom waters. Typically levels of oxygen were found to be reducing to around 70 percent saturation (with well-aerated water being 100 percent). In one case the low levels remained for several weeks and on another occasion a drop to 40 percent was measured.²⁰² Such oxygen drops within seawater can have adverse effects on sedentary marine life. Excess nutrients have also made the seawater more acidic.

Despite all these pressures, which cumulatively have meant that the Firth of Thames is only a shadow of its former self in terms of diversity, productivity and resilience, the marine area is still ecologically significant in the context of the broader Hauraki Gulf. For example, recent research has identified the Firth as being an important snapper nursery area.²⁰³ It continues to support important snapper and flounder fisheries and a large aquaculture industry. It also hosts a large population of migratory shorebirds. Efforts are now underway to restore the mussel beds in the Hauraki Gulf, but these seem unlikely to benefit the Firth itself until the existing stressors, such as sediment flows, are reduced.

The marine environment faces many pressures such as land-based pollution, fishing impacts on habitats and climate change. Often a range of stressors are concentrated in the same place, and act cumulatively and unpredictably. Cascading impacts can send an ecosystem over a tipping point into a completely different state.



Dairying on drained wetlands in the Hauraki Plains

Raewyn Peart

2.7 Consequential social, cultural and economic problems

Biophysical problems can also be seen as social, cultural and economic problems. They are of concern not just because we need to retain ecosystems intact and save species from extinction, but also because we want to protect a sustainable marine economy, cultural practice and integrity, and social and recreational opportunities that flow *from* them. For example:

- The pollution and invasive species that affect ecosystems (and which are exacerbated by a changing climate) can equally threaten the viability of activities like aquaculture and wild fish harvest. That is an economic problem as well as an “environmental” one, because the resource becomes less productive or unfit for consumption or use. Cumulative impacts on fish reproduction and mortality can be put in the same boat, as can the risks that increased storm frequency and marine heatwaves pose to all sorts of marine activities and infrastructure.²⁰⁴
- The contaminants that flow into an estuary, or out of an outfall, may not push a habitat beyond an ecological tipping point, but may make people sick if they eat shellfish or swim. This is a public health problem as well as an “environmental” one.
- The disappearance of an inter tidal habitat is ecologically destructive, but it also excludes people from accessing te moana. That is a social problem as well as an “environmental” one.
- The localised depletion of some stocks – eg tarakihi and scallops – may be as much a problem for community access to a resource as it is for ecological health.

All of the above – indeed, all the problems outlined in this chapter – impact on Māori as mana moana, as kaitiaki, and as the human link in the integrated cosmogony of te ao Māori. In other words, biophysical problems are inextricably bound up with cultural belief and cultural practice, and cannot be pigeon-holed as “just” a series of environmental issues. That, if nothing else, automatically makes the health of te moana a pressing te Tiriti issue and of broader importance than just environmental protection. For example, “the decline in fisheries is impacting the passing on of stories and knowledge that was part of the communal experience of collecting, preparing and eating local foods. ... Younger generations now have less familiarity with the foods that are part of tribal tradition.”²⁰⁵

Threats to marine life and ecosystems have significant flow-on effects for people who rely on ecosystem services and who have spiritual and intangible relationships with te moana.



Recreational fishing, Coromandel

2.8 Non-biophysical issues in our marine environment

A quite different set of issues, which is not concerned with the marine environment or ecosystem health per se, plays out *in* the marine environment. They can be described as “social” and “economic” issues, for want of a better term. In other words, such issues would still exist even if biophysical outcomes were optimal. It is often less clear whether, or the extent to which, these are problems because there is often a fierce contest of values (about whether or not something *should* change). It is also worth noting that in te ao Māori it is not always easy to distinguish between “biophysical”, “social” and “economic” issues. This is because the health of the moana is about a whakapapa relationship, just as concepts like fairness and justice are about relationships between people.

For one, there are valid questions about whether we, as a nation, are making the most out of our seas. Should we be seeking to extract more *value*, not just more *stuff*, from them? Is this something that people, and the management system, should be concerned with? It is an increasingly pertinent question as the marine environment becomes more congested, and as technology allows us to use it for different and potentially mutually exclusive things (eg offshore aquaculture, energy generation, deep-sea mining, nutraceuticals).

Another social issue is whether the value generated by our use of the marine environment is distributed fairly. This can manifest in various ways. For example, is it fair that most coastal occupation rights are determined on a first in, first served basis? And that private interests can use marine resources – which for the most part belong to no one²⁰⁶ – with no obligation to return part of their value through resource rentals or the like²⁰⁷ Is it fair that customary title and rights are taking so long to resolve? And that there is a lack clarity over how access to shared stocks will be allocated between customary, recreational and commercial fishers? Despite full and final settlement of commercial fishing and aquaculture rights for Māori, te Tiriti issues continue on this front (eg how the settlement relating to aquaculture space will be implemented at a regional level;²⁰⁸ how the ongoing Treaty partnership between iwi and the Crown will be given effect to in fisheries management;²⁰⁹ whether tools such as taiāpure adequately enable rangatiratanga).²¹⁰

One of the more controversial issues has been the privatisation of fishing rights through the QMS (for a description of the QMS, see Appendix 1).²¹¹ Some have pointed to issues around the concentration of wealth, suggesting that quota are now inequitably distributed and excessively aggregated to large corporate entities. This potentially has implications



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Harvest of snapper, Hauraki Gulf

for how efficiently the market works in terms of access to the fishery and share of the value chain.²¹² As economist Dr Tim Denne has pointed out:²¹³

Value will flow to the owner of the scarcest resource, which for most fisheries is quota shares ... Where there is over-capacity in vessels and marine space is not limiting, value will always flow to the owners of quota. The value will be set by the discounted expected future willingness to pay for ACE [annual catch entitlement] and where there is no scarcity of vessels, this is expected to reflect the difference between the expected revenue from fish sales and the short or medium run marginal costs of fishing (labour, fuel and equipment replacement). Value will only sit with vessel owners when they become the scarce resource.

Another commentator puts it in less economically focused terms:²¹⁴

Quota landlords now hold all the power, the middlemen clip the ticket, and the fishermen doing the hard yards only earn a fraction of what the fish is worth.

Those doing the fishing usually do not hold quota,²¹⁵ and because of it are generally worse off. So too are local communities traditionally reliant on fishing and the income it brings, who have lost their commercial fishing fleets. Recent Cabinet papers have signalled concerns about whether those actually harvesting the fish are receiving a fair return for their efforts and an intention to tackle such issues in some shape or form.²¹⁶

A number of social and economic problems can be seen playing out in our oceans. There are questions as to whether we are making the best use of our commons, and whether the value generated through using it is being fairly distributed.

2.9 Concluding comments

In this chapter we have looked at Aotearoa New Zealand's marine environment, and the problems it is facing. It is not surprising that our marine ecosystems are under increasing stress. If anything, the most remarkable thing is that many have remained as resilient as they have. But there is no guarantee they will remain so in the future.

It is difficult to say which problems are more important and urgent than others, as most are interconnected. However, a decade ago, a group of scientists had a go at ranking threats to Aotearoa New Zealand's marine habitats. Across all habitats, after two key climate-induced changes (ocean acidification and seawater warming), bottom trawling was ranked as the greatest threat, followed by sediment, further climate change impacts (changes in currents and increased storminess), dredging harvest methods and the dumping of dredge spoils. Invasive species were also highly ranked.²¹⁷ Although not definitive (the assessment was largely based on expert knowledge rather than scientific data), it does serve to provide some indication of where an oceans management system may need to focus its efforts.

For some things, damage may have been instigated a long time ago and legacy effects are inevitable in the future. For example, marine habitats are slow to recover from trawling impacts and it takes time to replace

vegetation cover in a catchment. Elements of climate change now seem inevitable. We will need to play a long game in resolving such things, and measure our success accordingly. But this also reminds us that what we allow to happen now will have impacts that reverberate down the years. A decision to clear-fell forests (or plant in the expectation of doing so), or to overstock dairying land, or to allow novel chemicals and plastics into a waste stream from which they may not be filtered out, will be experienced by future generations. What we do now matters.

Leaving the status quo will inevitably result in worse environmental outcomes. Although there is a historical legacy of damage that we need to deal with, much damage has also occurred under the current management system and will continue to do so unless we change it. It is to our existing system that we turn in the following chapter, to look at what is going wrong with it.



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New Zealand sea lion, Otago Peninsula

Endnotes

- 1 Simon Winchester *Land: How the Hunger for Ownership Shaped the Modern World* (William Collins, 2021) at 7.
- 2 For example, if a problem is “too few marine reserves”, then objectives include “more marine reserves”.
- 3 Approximately 65 percent of New Zealanders live within five kilometres of the sea: Organisation for Economic Co-operation and Development (OECD) *Responding to Rising Seas: OECD Country Approaches to Tackling Coastal Risks* (OECD Publishing, Paris, 6 March 2019) as cited in Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019).
- 4 From a baseline defined in international law (under the United Nations Convention on the Law of the Sea), which has complexities around how to draw lines across harbours, embayments, estuaries and so forth. On international law, see Chapter 3.
- 5 This includes its underlying continental shelf/seabed. Under international law, the EEZ and its underlying continental shelf are defined in separate but overlapping ways. There is a further overlay of a “contiguous zone” between 12 and 24 nautical miles, which provides Aotearoa New Zealand with enhanced jurisdiction over particular matters like customs and sanitation.
- 6 Commission on the Limits of the Continental Shelf (CLCS) *Recommendation of the Commission on the Limits of the Continental Shelf (CLCS) in regard to the Submission Made by New Zealand 19 April 2006* (United Nations, 22 August 2008). See also United Nations Convention on the Law of the Sea 1833 UNTS 397 (opened for signature 10 December 1982, entered into force 16 November 1994), art 76(8).
- 7 Although it is important to note that jurisdiction over the extended continental shelf does not give corresponding jurisdiction over the water column above it, which remains the “high seas” under international law.
- 8 Te Ahukaramū Charles Royal “Kaitiakitanga – guardianship and conservation - Understanding kaitiakitanga” (24 September 2007) Te Ara - the Encyclopedia of New Zealand <www.TeAra.govt.nz/en/artwork/11542/gods-of-the-natural-world>.
- 9 Te Ahukaramū Charles Royal “Tangaroa – the sea - The importance of the sea” (12 June 2006) Te Ara - the Encyclopedia of New Zealand <<http://www.TeAra.govt.nz/en/tangaroa-the-sea/page-11>>.
- 10 *Mana whenua* means customary authority exercised by an iwi or hapū in an identified area: see Resource Management Act 1991, s 2.
- 11 Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018) at 2.
- 12 Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018) at 3.
- 13 Much of this section draws from EDS's previous publication: Lucy Brake and Raewyn Peart *Sustainable Seas: Managing the marine environment* (Environmental Defence Society, Auckland, 2015).
- 14 Greg Severinsen, Raewyn Peart and Bella Rollinson *The Breaking Wave: A conversation about reforming the oceans management system in Aotearoa New Zealand* (Environmental Defence Society, August 2021), available from <<https://eds.org.nz/wp-content/uploads/2021/11/Oceans-Reform-Paper.pdf>>
- 15 Cyanobacteria are important too – these are photosynthetic bacteria (they make their own food) but are not part of the plant kingdom.
- 16 Lucy Brake and Raewyn Peart *Sustainable Seas: Managing the marine environment* (Environmental Defence Society, Auckland, 2015).
- 17 Project AWARE Foundation *Aware: Our World, Our Water* (eBook ed, Kindle, 2009) at 2-10.
- 18 Lucy Brake and Raewyn Peart *Sustainable Seas: Managing the marine environment* (Environmental Defence Society, Auckland, 2015).
- 19 Lucy Brake and Raewyn Peart *Sustainable Seas: Managing the marine environment* (Environmental Defence Society, Auckland, 2015) at 14.
- 20 Paddy Ryan “Eels – Life cycle and breeding grounds” (24 September 2007) Te Ara – the Encyclopedia of New Zealand <<http://www.TeAra.govt.nz/en/eels/page-3>>
- 21 Dennis Gordon and others “Marine biodiversity of Aotearoa New Zealand” (2010) 5(8) PLoS One e10905.
- 22 Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019) at 10.
- 23 Ministry for the Environment *Environment New Zealand 2007* (ME 847, December 2007) at 316.
- 24 Lucy Brake and Raewyn Peart *Sustainable Seas: Managing the marine environment* (Environmental Defence Society, Auckland, 2015) at 10.
- 25 All animals are members of the Kingdom Animalia, also called Metazoa.
- 26 Any organism whose cells contain a nucleus and other structures enclosed within membranes.
- 27 Single-celled eukaryotes (organisms whose cells have nuclei) that commonly show characteristics usually associated with animals.
- 28 Dennis Gordon (ed) *New Zealand Inventory of Biodiversity Volume Three: Kingdoms Bacteria, Protozoa, Chromista, Plantae, Fungi* (Canterbury University Press, Christchurch, 2012)
- 29 Rāwiri Taonui, “Muriwhenua tribes” (8 February 2005) Te Ara - the Encyclopedia of New Zealand <<http://www.TeAra.govt.nz/en/muriwhenua-tribes>>. See also Department of Conservation “Cape Reinga/Te Rerenga Wairua heritage” <www.doc.govt.nz/parks-and-recreation/places-to-go/northland/places/te-paki-recreation-reserve/cape-reinga-te-rerenga-wairua/heritage/>.
- 30 Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019) at 10.
- 31 See Hauraki Gulf Forum *State of our Gulf 2020* (State of the Environment Report 2020, February 2020) at 6.
- 32 Ministry for the Environment *Environment Aotearoa 2019* (ME 1416, April 2019) at 88.
- 33 Rodney Yeoman, Doug Fairgray and Brian Lin *Measuring New Zealand's Blue Economy* (report prepared by Market Economics Ltd for Sustainable Seas and University of Auckland, published online, September 2019) at 5. The statistics presented in this report were prepared using data that were collected prior to any Covid-19 impacts.
- 34 Minister for Oceans and Fisheries and Minister for Conservation “Revitalising the Hauraki Gulf – Government Sea Change Strategy” (2 July 2021) at [13].
- 35 Statistics New Zealand *Environmental-economic accounts: Sources and methods* (Wellington, June 2019).
- 36 Statistics New Zealand “Marine economy: 2007-17 (updated 27 June 2019)” at Tables 1-2, on Statistics New Zealand “Environmental-economic accounts: 2019 – tables” (14 February 2019) <www.stats.govt.nz/information-releases/environmental-economic-accounts-2019-tables>.
- 37 Department of Conservation and Fisheries New Zealand *National Plan of Action – Seabirds 2020* (Fisheries New Zealand, November 2019) at 13. Credit: Tim Denne.
- 38 In the 2019-2020 fishing year. See Minister for Oceans and Fisheries “Fisheries system reform agenda” (2 July 2021) at [19].
- 39 Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018) at 3.
- 40 See Ministry for Primary Industries *Aquaculture Strategy* (2019); Ministry for Primary Industries *Aquaculture Strategy: 2021 Implementation Plan* (2019); and further Ministry for Primary Industries <www.mpi.govt.nz>.
- 41 Environmental Protection Authority *Decision on Marine Consent Application: Chatham Rock Phosphate Limited: to mine phosphorite nodules on the Chatham Rise* (February 2015).
- 42 New Zealand Steel “The History of Ironsand” <www.nzsteel.co.nz/new-zealand-steel/the-story-of-steel/the-history-of-ironsand/>.
- 43 See Taranaki Regional Council “Oil & gas – production” <www.trc.govt.nz/council/plans-and-reports/monitoring-reports/consent-compliance-monitoring-reports/oil-and-gas-production/>.
- 44 Statistics New Zealand “Marine economy: 2007-17 (updated 27 June 2019)” at Tables 1-2, on Statistics New Zealand “Environmental-economic accounts: 2019 – tables” (14 February 2019) <www.stats.govt.nz/information-releases/environmental-economic-accounts-2019-tables>.
- 45 Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019) at 39. Shipping accounted for 37 percent of the marine economy.
- 46 Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019) at 7.
- 47 Rodney Yeoman, Doug Fairgray and Brian Lin *Measuring New Zealand's Blue Economy* (report prepared by Market Economics Ltd for Sustainable Seas and University of Auckland, published online, September 2019) at 5. The statistics presented in this report were prepared using data that were collected prior to any Covid-19 impacts.
- 48 Tracey Neal “Whale Watch Kaikōura expands with unique new boat following post-quake growth” *RNZ* (online ed, 13 June 2019).
- 49 At 6.
- 50 For example, a recent Cabinet paper suggested that “there are also small scale individual fishers who are looking beyond traditional fishing approaches and using more selective harvesting practices. They are creating new markets that allow them to create far greater value while leaving more fish in the water.” Minister for Ocean and Fisheries “Fisheries Amendment

- Bill: Strengthening fishing rules and policies: landings and discards" (2 July 2021) at [22].
- 51 See Venture Taranaki and Elemental Group *Offshore Wind: A New Energy Opportunity For Taranaki Discussion Paper* (2020); Ian Mason and Giacomo Caleffi "Developing Offshore Wind in New Zealand: Technical, socio-economic and environmental issues in relation to a post-pandemic future" (presented to 14th OERC Symposium, University of Otago, November 2020); Sustainable Seas National Science Challenge "Energy from tidal currents – Kick-starting a new marine industry with huge potential" <www.sustainableseaschallenge.co.nz>.
- 52 Such as difficulties in construction and repair in a challenging marine environment, costs of connection to electricity grids, and the need to compete with alternative generating activities on land.
- 53 Jamie Gray "NZ Super to explore large-scale offshore wind energy generation off South Taranaki coast" NZ Herald (date unknown) <www.nzherald.co.nz/business/nz-super-to-explore-large-scale-offshore-wind-energy-generation-off-south-taranaki-coast/UVWMHW5G5P3SHLSBFZYSX7XLRM/>.
- 54 *Trans-Tasman Resources Ltd v Taranaki-Whanganui Conservation Board* [2020] NZSC 67 granted leave to appeal to the Supreme Court.
- 55 Barry Barton, Kimberley Jane Jordan and Greg Severinsen *Carbon capture and storage: Designing the legal and regulatory framework for New Zealand* (Centre for Environmental, Energy and Resources Law, University of Waikato, 2013) and EnviroStrat Ltd *Sustainable Seas, National Science Challenge – Transitioning to a Blue Economy: Scoping and Horizon Scanning* (December 2019) at 24. See further Sustainable Seas National Science Challenge "Building a Seaweed Sector" <www.sustainableseaschallenge.co.nz>.
- 56 Barry Barton, Kimberley Jane Jordan and Greg Severinsen *Carbon capture and storage: Designing the legal and regulatory framework for New Zealand* (Centre for Environmental, Energy and Resources Law, University of Waikato, 2013).
- 57 Jim Robbins "As water scarcity increases, desalination plants are on the rise" *Yale Environment* 360 (11 June 2019).
- 58 Water Corporaion "Desalination" <https://www.watercorporation.com.au/Our-water/Desalination>.
- 59 Mohamed A Dawoud and Mohamed M Al Mulla "Environmental impacts of seawater desalination: Arabian Gulf case study" (2012) 1(3) Int J Environ Sustain 22 at 27.
- 60 See Cecilia Tortajada and Pierre van Rensburg "Drink more recycled water" (2020) 577 Nature 26-28, which recounts residents around the world successfully opposing wastewater recycling schemes due to safety concerns.
- 61 Sustainable Seas National Science Challenge "Ngā Tohu o te Ao: Maramataka and marine management" <www.sustainableseaschallenge.co.nz/our-research/nga-tohu-o-te-ao-maramataka-and-marine-management/>.
- 62 Environment Canterbury "Mahinga Kai" <www.ecan.govt.nz/your-region/farmers-hub/fep/mahinga-kai/>.
- 63 This can cause clashes with respect to, for example, marine protected areas where some forms of use are forbidden or restricted.
- 64 See Te Aka Māori Dictionary "rohe" <www.maoridictionary.co.nz>
- 65 See *Re Edwards (Te Whakatohea (No.2))* [2021] NZHC 1025.
- 66 Louise Hunt *Economic Impact Analysis of the Cape Rodney Okakarī Point (Leigh) Marine Reserve on the Rodney District* (Department of Conservation, Investigation number 4052, June 2008) at 9.
- 67 J Wynne-Jones and others *National Panel Survey of Marine Recreational Fishers 2017-2018* (Fisheries New Zealand, New Zealand Fisheries Assessment Report 2019/24, July 2019).
- 68 John Holdsworth and others *Recreational Fishing in New Zealand: A Billion Dollar Industry* (New Zealand Marine Research Foundation, March 2016) at 3; and compare J Wynne-Jones and others *National Panel Survey of Marine Recreational Fishers 2017-2018* (Fisheries New Zealand, New Zealand Fisheries Assessment Report 2019/24, July 2019).
- 69 J Wynne-Jones and others *National Panel Survey of Marine Recreational Fishers 2017-2018* (Fisheries New Zealand, New Zealand Fisheries Assessment Report 2019/24, July 2019).
- 70 Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018) at 3.
- 71 Kim Walshe and Jo Akroyd *Motivations and Perceptions of Seawater Recreational Fishers in New Zealand* (Ministry of Fisheries, REC9802, 2000) at 1, as cited in Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018).
- 72 Whether these things are a "service" or just another form of pollution depends on its extent and one's perspective.
- 73 Enric Sala and others "Protecting the global ocean for biodiversity, food and climate" (2021) 592 Nature 397.
- 74 See for example, Revive our Gulf "Restoring Mussel Reefs off the Hauraki Gulf" at <www.reviveourgulf.org.nz>.
- 75 Todd Prodanovich "The Battleground Below" *Surfer* (online ed, 16 July 2018).
- 76 See for example, Fiona McCormack "Fish is My Daily Bread: Owning and Transacting in Māori Fisheries" (2010) 20(1) Anthropol Forum at 19-39. See further, Valmaine Toki "Adopting a Maori Property Rights Approach to Fisheries" (2010) 14 NZJEL 197.
- 77 Annette Sykes "The Politics of the Brown Table" (The Political Studies Department and the Bruce Jesson Foundation Lecture 2010, 27 October 2010) at 2.
- 78 Jonathan Dick and others "Listening to the Kaitiaki: Consequences of the loss of abundance and biodiversity of coastal ecosystems in Aotearoa New Zealand" (2012) 1(2) MAJ Journal 117.
- 79 Michael De Alessi "The Political Economy of Fishing Rights and Claims: The Māori Experience in New Zealand" (2012) 12(2) Journal of Agrarian Change 390 at 409.
- 80 See *Ngāti Maru Trust v Ngāti Whātua Ōrākei Whai Māia Ltd* [2020] NZHC 2768; and *Re Edwards (Te Whakatohea) (No 2)* [2021] NZHC 1025.
- 81 For example, the New Zealand sealion went from nationally critical to nationally vulnerable between 2013 and 2019.
- 82 Department of Conservation *Te Mana o Te Taiao – Aotearoa New Zealand Biodiversity Strategy 2020* (Department of Conservation, Wellington, August 2020) at 12.
- 83 Introductory commentary from Department of Conservation *Biodiversity in Aotearoa: an overview of state, trends and pressures* (August 2020), Marine domain – Te Whaitua Moana, at 96 – 117.]
- 84 Statistics New Zealand "Conservation status of indigenous marine species - published October 2019" (17 October 2019) at www.stats.govt.nz/indicators/conservation-status-of-indigenous-marine-species> as reported in Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019) at 16.
- 85 Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019) at 16.
- 86 See Department of Conservation, "Hector's Dolphin" <www.doc.govt.nz>.
- 87 Elisabeth Slooten and Stephen M Dawson "Delays in Protecting a Small Endangered Cetacean: Lessons Learned for Science and Management" (2021) 8 Front Mar Sci 1 at 2.
- 88 Marine Mammals Protection Act 1978, s 4(1)(b); see also interpretation, s 2(a), 'take'. Although, technically, a permit can be issued to hunt marine mammals none are currently extant.
- 89 Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019) at 37.
- 90 Minister for Fisheries "Hectors and Māui Dolphin Threat Management Plan Review – Fisheries Measures" (23 June 2020) at [7].
- 91 Raewyn Peart *Bryde's whale voluntary protocol case study* (unpublished report for the Sustainable Seas National Science Challenge, Environmental Defence Society, 2017).
- 92 Including cruise ships, although Covid-19 has drastically reduced their number and cast doubt over the future of the cruise ship industry.
- 93 S Behrens and R Constantine *Large Whale and Vessel Collisions in Northern New Zealand* (International Whaling Commission Scientific Committee, SC/60/BC/9, 2008), as cited in Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019).
- 94 Walker and others "Environmental Effects of Marine Transportation in "World Seas: An Environmental Evaluation" (2018), as cited in Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019).
- 95 Department of Conservation "Shorebirds start nesting in Eastern Bay of Plenty" (media release 6 October 2020) <www.doc.govt.nz>
- 96 Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019) at 37; see also Y Richard, E R Abraham and K Berkenbusch *Assessment of the risk of commercial fisheries to New Zealand seabirds, 2006-07 to 2016-17* (Fisheries New Zealand, New Zealand Aquatic Environment and Biodiversity Report 237, January 2020). A recent estimation which calculates seabird captures from trawl and longline fisheries found that over 3000 birds were captured in the 2017-18 year: E R Abraham and Y Richard *Estimated capture of seabirds in New Zealand trawl and longline fisheries, to 2017-18* (Fisheries New Zealand, New Zealand Biodiversity Report 249, October 2020).
- 97 Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018) at 4.
- 98 Fisheries New Zealand *Aquatic Environment and Biodiversity Annual Review 2019-20: A summary of environmental interactions between the seafood sector and the aquatic environment* (Ministry for Primary Industries, Wellington, June 2020) at 323.
- 99 Lynne Zeitlin Hale and Jeremy Rude (eds) *Learning from New Zealand's 30 Years of Experience Managing Fisheries Under a Quota Management System* (The Nature Conservancy, Arlington, 2017) at 106.

- 100 Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019) at 38.
- 101 On the impacts of plastics on marine life, see Murray Gregory "Environmental implications of plastic debris in marine settings—entanglement, ingestion, smothering, hangers-on, hitch-hiking and alien invasions" (2009) 364(1526) *Philosophical Transactions of the Royal Society B: Biological Sciences*; Chris Wilcox, Erik Van Sebille and Britta Denise Hardesty "Threat of plastic pollution to seabirds is global, pervasive, and increasing" (2015) 112(38) *PNAS*, both as cited in Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019).
- 102 Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019).
- 103 Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019) at 5.
- 104 Parliamentary Commissioner for the Environment *Managing our estuaries* (August 2020).
- 105 Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019) at 22.
- 106 Fisheries New Zealand *The Status of New Zealand's Fisheries 2020* (February 2021) at 1.
- 107 Fisheries New Zealand *The Status of New Zealand's Fisheries 2020* (February 2021) at 8.
- 108 *Royal Forest and Bird Protection Society v Minister of Fisheries* [2021] NZHC 1427.
- 109 See submission prepared by the Environmental Defence Society entitled "Review of Sustainability Measures for Selected Fish Stocks - April 2022 Round" (8 February 2022) available from www.eds.org.nz; and Fisheries New Zealand *Review of Sustainability Measures for New Zealand Scallops (SCA 1 & SCA CS) for 2022/23* (Discussion Paper 2021/30, December 2021).
- 110 There are many reasons why a stock may not be routinely assessed including a lack of scientific data to inform an assessment, limited capacity within the fisheries management system to undertake assessments (requiring prioritisation), and the presence of some purely "administrative" stocks which are not fished and therefore are not assessed or managed.
- 111 Office of the Prime Minister's Chief Science Advisor *The future of commercial fishing in Aotearoa New Zealand* (February 2021) at page 137 and following.
- 112 See for example, the decision by Ngati Paoa to place a rāhui over shallow coastal waters surrounding Waiheke Island (within one nautical mile from the shore), Hauraki Gulf, Te Aorewa Rolleston "Two-year rāhui for Waiheke Island waters to protect kaimoana" RNZ (online ed, 30 January 2021).
- 113 Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019) at 40.
- 114 Nick Shears and Russell Babcock "Marine reserves demonstrate top-down control of community structure on temperate reefs" (2002) 132 *Oecologia* 131 as cited in Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019) at 22.
- 115 Recovery of kelp has occurred on the rocky reef systems within the marine reserves at Leigh and Hahei. We only know that these systems can recover because of such reserves, which serves to demonstrate their importance in understanding the impacts of fishing activity on the broader marine environment.
- 116 Malcom Clark and others "Little Evidence of Benthic Community Resilience to Bottom Trawling on Seamounts After 15 Years" (2019) 6 *Front Mar Sci*, as cited in Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019) at 40; LJ Paul *A history of the Firth of Thames dredge fishery for mussels: Use and abuse of a coastal resource* (Ministry for Agriculture and Fisheries, New Zealand Aquatic Environment and Biodiversity Report 94, 11 April 2012); Sean Handley and others *A 1,000 year history of seabed change in Pelorus Sound/Te Hoiere, Marlborough* (NIWA, April 2017); both as cited in Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018) at 4.
- 117 Office of the Prime Minister's Chief Science Advisor "The future of commercial fishing in Aotearoa New Zealand" (February 2021)
- 118 At 89.
- 119 Stephen Eayrs, Tony Craig and Katherine Short *Mitigation Techniques to Reduce Benthic Impacts of Trawling: MIT2019-02 A review for the Department of Conservation by Terra Moana Limited* (Terra Moana, April 2020) at 25 and following.
- 120 Fisheries New Zealand *Aquatic Environment and Biodiversity Annual Review 2019-20: A summary of environmental interactions between the seafood sector and the aquatic environment* (Ministry for Primary Industries, Wellington, June 2020) at 397-398.
- 121 At 411; Lynne Zeitlin Hale and Jeremy Rude (eds) *Learning from New Zealand's 30 Years of Experience Managing Fisheries Under a Quota Management System* (The Nature Conservancy, Arlington, 2017) at 106.
- 122 LJ Paul *A history of the Firth of Thames dredge fishery for mussels: Use and abuse of a coastal resource* (Ministry for Agriculture and Fisheries, New Zealand Aquatic Environment and Biodiversity Report 94, 11 April 2012).
- 123 Keith Michael and others *A summary of information and expert opinion to help rebuild shellfish fisheries in Golden and Tasman Bays* (NIWA, November 2015).
- 124 H John Cranfield, Keith Michael and Ian Doonan "Changes in the distribution of epifaunal reefs and oysters during 130 years of dredging for oysters in Foveaux Strait, southern New Zealand" (1999) 9(5) *Aquat Conserv* 461.
- 125 John Darling, Leif-Matthias Herborg and Ian Davidson "Intracoastal shipping drives patterns of regional population expansion by an invasive marine invertebrate" (2012) 10(2) *Ecology and Evolution* 2557; and Hanno Seebens and others "Predicting the spread of marine species introduced by global shipping" (2016) 113(20) *PNAS* 5646; both as cited in Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019) at 40.
- 126 See for example, Department of Conservation, pest seaweed *Undaria pinnatifida* at <www.doc.govt.nz/nature/pests-and-threats>.
- 127 "Citizen science data collected at 44 sites showed more than 60 percent of beach litter was plastic." Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019) at 6.
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- 129 Zara Botterel and others "Bioavailability and effects of microplastics on marine zooplankton: a review" (2019) 245 *Environmental Pollution* 98; Matthew Cole and others "Microplastic Ingestion by Zooplankton" (2013) 47(12) *Environ Sci Technol* 6646; both as cited in Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019).
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- 131 Imogen Napper and Richard Thompson "Release of synthetic microplastic plastic fibres from domestic washing machines: Effects of fabric type and washing conditions" (2016) 112(1-2) *Mar Pollut Bull* 39 at 42.
- 132 Royal Society Te Apārangi *Plastics in the Environment: Te Ao Hurihuri -The Changing World* (2019) at 27.
- 133 At 27.
- 134 Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019).
- 135 Minister for Oceans and Fisheries "Fisheries system reform agenda" (2 July 2021) at [34].
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- 138 For example, "earthworks accounted for 24 percent of all sediment from the Te Awarua-o-Porirua Harbour catchment, despite accounting for just 1 percent of the land area." Greater Wellington Regional Council and others *Te Awarua-o-Porirua Harbour and Catchment Sediment Reduction Plan* (2015) as cited in Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019) at 26.
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- 147 "Coastal water quality is variable but generally improving nationally..." Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019) at 6.
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- 150 See for example, Jamie Morton "Sewage overflows surged by 379% last year - Water New Zealand report" *New Zealand Herald* (online ed, 12 April 2018).
- 151 Mike Stewart and others *Literature review of the risks and adverse effects from discharges of stormwater, wastewater, industrial and trade waste, and other hazardous substances in Otago* (report prepared by Streamlined Environmental Ltd for Otago Regional Council, Report ORC1601-FINAL-v2, 10 February 2017) at 31.
- 152 Mike Stewart and others *Literature review of the risks and adverse effects from discharges of stormwater, wastewater, industrial and trade waste, and other hazardous substances in Otago* (report prepared by Streamlined Environmental Ltd for Otago Regional Council, Report ORC1601-FINAL-v2, 10 February 2017) at 31.
- 153 Earl Shaver and Alastair Suren *Assessing Impacts of State Highway Stormwater Runoff on Stream Invertebrate Communities* (New Zealand Transport Agency, October 2011) at 5; Mike Stewart and others *Literature review of the risks and adverse effects from discharges of stormwater, wastewater, industrial and trade waste, and other hazardous substances in Otago* (report prepared by Streamlined Environmental Ltd for Otago Regional Council, Report ORC1601-FINAL-v2, 10 February 2017) at 31.
- 154 Mike Stewart and others *Literature review of the risks and adverse effects from discharges of stormwater, wastewater, industrial and trade waste, and other hazardous substances in Otago* (report prepared by Streamlined Environmental Ltd for Otago Regional Council, Report ORC1601-FINAL-v2, 10 February 2017) at 31.
- 155 Figure adapted from Mike Stewart and others *Literature review of the risks and adverse effects from discharges of stormwater, wastewater, industrial and trade waste, and other hazardous substances in Otago* (report prepared by Streamlined Environmental Ltd for Otago Regional Council, Report ORC1601-FINAL-v2, 10 February 2017) at 31.
- 156 At 59.
- 157 Raewyn Peart and Cordelia Woodhouse *Te Manahuna-Mackenzie Basin and Landscape Protection* (Environmental Defence Society, Auckland, 2021) at 18.
- 158 See United Nations Framework Convention on Climate Change (UNFCCC) "Emissions from fuels used for international aviation and maritime transport" <<https://unfccc.int/topics/mitigation/workstreams/emissions-from-international-transport-bunker-fuels>>.
- 159 Bruce Dudley, John Zeldis and Olivia Burge *New Zealand Coastal Water Quality Assessment* (report prepared by NIWA for the Ministry for the Environment, February 2017). Such sites have disproportionately high concentrations of nitrogen and faecal bacteria.
- 160 See Nikki Macdonald "More than 300 old dumps at risk of coastal erosion and flooding" *Stuff Media* (online ed, 29 March 2021).
- 161 See Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019) at 6 and 36.
- 162 Both from melting polar ice and from thermal expansion.
- 163 See Environment Protection Agency (United States) "Climate Change Indicators: Ocean Heat" <www.epa.gov>.
- 164 Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019) at 51-53.
- 165 Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019) at 6.
- 166 Matt Pinkerton, Philip Sutton and Simon Wood *Satellite indicators of phytoplankton and ocean surface temperature for New Zealand* (Ministry for the Environment, CR 387, June 2019), as cited in Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019) at 51.
- 167 Mads Thomsen and others "Local Extinction of Bull Kelp (*Durvillaea* spp.) Due to a Marine Heatwave" (2019) 6 (March) *Front Mar Sci* 1, as cited in Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019).
- 168 Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019) at 51.
- 169 See for example, Terry P Hughes and others "Global warming and recurrent mass bleaching of corals" (2017) 543 *Nature* 373.
- 170 Heather Hunt and Robert Scheibling "Predicting wave dislodgment of mussels: variation in attachment strength with body size, habitat, and season" (2001) 213 *Mar Ecol Prog Ser* 157.
- 171 Tom Oliver and others "Biodiversity and Resilience of Ecosystem Functions" (2015) 30(11) *Trends in Ecology and Evolution* 673; Simon Thrush and others *A strategy to assess trends in the ecological integrity of New Zealand's marine ecosystems* report prepared by NIWA for the Department of Conservation, NIWA Client Report HAM2011-140, 2011); both as cited in Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019) at 22.
- 172 It is, however, interesting to note that our oceans are not themselves acidic in the scientific sense of the word. Their average pH sits firmly towards the alkaline end of the scale at around 8.1.
- 173 University of Otago "What is ocean acidification?" <www.otago.ac.nz/oceanacidification/whatisoa/index.html>
- 174 University of Otago "What is ocean acidification?" <www.otago.ac.nz/oceanacidification/whatisoa/index.html>
- 175 University of Otago "What is ocean acidification?" <www.otago.ac.nz/oceanacidification/whatisoa/index.html>
- 176 Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019).
- 177 Nicolas Gruber and others "The oceanic sink for anthropogenic CO₂ from 1994 to 2007" (2019) 363 *Science* 1193.
- 178 This is more significant than it sounds, since pH is measured on a logarithmic scale. Each unit on the pH scale represents a tenfold change in acidity. Thus "a decrease of 0.1 pH units represents a 26% increase in the relative acidity of ocean water": Woods Hole Oceanographic Institution "The pH Scale" <www.whoi.edu>.
- 179 University of Otago "What is ocean acidification?" <www.otago.ac.nz/oceanacidification/whatisoa/index.html>
- 180 Hannah Waters "Amazing Sea Butterflies Are the Ocean's Canary in the Coal Mine" *Smithsonian Magazine* (online ed, 14 May 2013).
- 181 Pacific Marine Environmental Laboratory (PMEL) Carbon Dioxide Program at National Oceanic and Atmospheric Administration (NOAA) "What is Ocean Acidification?" Center for Environmental Visualisation <www.pmel.noaa.gov/co2/story/What+is+Ocean+Acidification%3F>
- 182 A measure of productivity in terms of energy, not in the narrower commercial sense we often deploy for "primary production" on land.
- 183 See Environmental Protection Agency (United States) "Global Greenhouse Gas Emissions Data" <www.epa.gov>.
- 184 Karen McVeigh "Bottom trawling releases as much carbon as air travel, landmark study finds" *The Guardian* (online ed, 17 March 2021).
- 185 A MacDiarmid and others "New Zealand Marine Ecosystem Services" in JR Dymond (ed) *Ecosystem services in New Zealand - conditions and trends* (Manaaki Whenua press, Lincoln, 2013), as cited in Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019).
- 186 Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019) at 54 and following.
- 187 At 17.
- 188 Robert McNab (ed) "Extracts from the journal of Lieut Governor King of Norfolk Island 1791-96" in *Historical Records of New Zealand: Vol II* (John Mackay, Wellington, 1914).

- 189 Hauraki Gulf Forum *State of our Gulf* (State of the Environment Report, August 2011) at 35.
- 190 At 35.
- 191 Raewyn Peart *The Story of the Hauraki Gulf* (David Bateman, Auckland, 2016) at 116.
- 192 Sandy Boehnert and others "Historic development of heavy metal contamination into the Firth of Thames, New Zealand" (2020) 40 *Geo-Marine Letters* 149.
- 193 Hauraki Gulf Forum *State of our Gulf* (State of the Environment Report, August 2011) at 36.
- 194 MA Morrison and others *Linking marine fisheries species to biogenic habitats in New Zealand: a review and synthesis of knowledge New Zealand* (Ministry for Primary Industries, New Zealand Aquatic Environment and Biodiversity Report 130, 2014).
- 195 Raewyn Peart *The Story of the Hauraki Gulf* (David Bateman, Auckland, 2016) at 244.
- 196 Raewyn Peart *Farming the Sea* (Environmental Defence Society, Auckland, 2019) at 87.
- 197 Hauraki Gulf Forum *State of our Gulf* (State of the Environment Report, August 2011) at 35-36.
- 198 Seachange Stakeholder Working Group *Sea Change Tai Timu Tai Pari Hauraki Gulf Marine Spatial Plan* (Hauraki Gulf Forum in partnership with others, April 2017) at 261.
- 199 Raewyn Peart *The Story of the Hauraki Gulf* (David Bateman, Auckland, 2016) at 233.
- 200 Tara Anderson and others *Review of New Zealand's Key Biogenic Habitats* (report prepared by NIWA for the Ministry for the Environment, Client Report 2018139WN, January 2019).
- 201 MA Morrison and others *A review of land-based effects on coastal fisheries and supporting biodiversity in New Zealand* (Ministry of Fisheries, New Zealand Aquatic Environment and Biodiversity Report 37, 2009).
- 202 Malcom Green and John Zeldis *Firth of Thames water quality and ecosystem health: A synthesis* (NIWA, TR 2015/23, April 2015).
- 203 MA Morrison, J McKenzie and R Bian *Pre-recruit (0+) snapper (Chrysophrys auratus) beam trawl and beach seine surveys of East Northland and the Hauraki Gulf (SNA 1)* (Fisheries New Zealand, New Zealand Fisheries Assessment Report 2019/72, November 2019).
- 204 New Zealand King Salmon *NZK Annual Report 2018* (3 October 2018); Sanford Limited *2018 Annual Report* (15 November 2018); both as cited in Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019).
- 205 Johnathan Dick and others "Listening to the kaitiaki: consequences of the loss of abundance and biodiversity of coastal ecosystems in Aotearoa New Zealand" (2012) 1(2) *MAI Journal* 117 at 120-123.
- 206 With the exceptions of Crown owned minerals and privately held parts of the seabed.
- 207 Office of the Prime Minister's Chief Science Advisor *The Future of Commercial Fishing in Aotearoa New Zealand* (February 2021) at 3 and 194; nor, for example, is recreational fishing licenced.
- 208 See Ministry for Primary Industries *Delivering on the Māori Commercial Aquaculture Settlement* (Guidance Note 6 of 6, October 2012); Ministry for Primary Industries "Māori commercial aquaculture claims settlement" (30 September 2021) <www.mpi.govt.nz/fishing-aquaculture/fishing-aquaculture-funding-support/maori-commercial-aquaculture-claims-settlement/>; and Te Puni Kōkiri *Te Whakataunga Ahumoana: The Aquaculture Settlement* (Information Sheet 5 of 6, May 2007) at 1.
- 209 Te Ohu Kaimoana *Māori Fisheries Strategy* (February 2017) at 52.
- 210 See Anne-Marie Jackson "Erosion of Māori Fishing Rights in Customary Fisheries Management" 2013 21 *Waikato LR* 59.
- 211 The way the market operates has given rise to many issues – for example, in our publication *Voices from the Sea* we discussed the inequities and te Tiriti implications of what are known as section 28N rights under the Fisheries Act (see Peart, above n 11, at 12).
- 212 Minister for Oceans and Fisheries "Fisheries system reform agenda" (2 July 2021) at 3.
- 213 T Denne *Review and analysis of the QMS* (unpublished paper commissioned by Environmental Defence Society, 2021).
- 214 Legasea "LegaSea is not anti-commercial fishing" (9 December 2019) <www.legasea.co.nz/2019/12/09/legasea-is-not-anti-commercial-fishing/>.
- 215 Those who rely on purchasing annual catch entitlement (ACE) on a year-by-year basis form around 80 percent of the inshore fleet: Minister for Oceans and Fisheries "Fisheries system reform agenda" (2 July 2021).
- 216 Minister for Oceans and Fisheries "Fisheries system reform agenda" (2 July 2021) at 5 and 6.
- 217 A MacDiarmid and others *Assessment of anthropogenic threats to New Zealand marine habitats* (Ministry of Agriculture and Forestry, New Zealand Aquatic Environment and Biodiversity Report 93, 2012) at 40.

3 The current oceans management system



Bean Rock lighthouse

3.1 Introduction

The existing oceans management system should not be the *conceptual* starting point for change. Some reform options may involve upending assumptions underpinning the current system. The scale of problems we face means it is legitimate to at least contemplate revolution, not evolution. However, describing the current system is still important for a number of reasons.

1. It gives a practical sense of what the boundaries of the oceans management system are, making the definition in Chapter 1 more tangible.
2. It sets out the practical starting point from which any further reforms – whether smaller scale or transformational – would occur, and gives a sense of how much change would be involved in getting from here to there.
3. It enables the diagnosis of problems with the system, which will need to be addressed in the future.
4. It can highlight opportunities for small-scale or targeted reforms (eg where there is already a legal framing for tools that have not been used to their full potential).

We provide a more detailed summary of the existing system in Appendix 1. The system is complex and comprises much more than just our statute book. It also includes thousands of tools – from national direction and regional coastal plans, to catch limits and the QMS, to product stewardship schemes and waste levies, to mining permits and resource consents. An important element of the system is the existing te Tiriti settlements for fisheries and aquaculture.

When we speak of an “oceans management system”, however, it is important to remember there is actually more than one system in operation. The ways in which we manage our oceans are not limited to legislation, institutions and formal tools like regulations; that system is largely Western in its origins, construction and operation. Before it existed, the system in Aotearoa New Zealand was that of tangata whenua, based on tikanga.

Tikanga is more than just a te ao Māori worldview (see Chapter 7) or set of metaphysical values. It is also a practical system of resource management. The point is that tikanga should not be treated as just another “principle”



Pou, Moturua Island

to be given recognition alongside things like precaution, inter-generational equity, ecosystem-based management and so forth. It is an entire system in its own right, and comes with its own normative principles (eg kaitiakitanga, mauri, mana, utu and so forth).

A spotlight on tikanga

Centuries before Europeans reached the waters of the Pacific Ocean and the shores of Aotearoa New Zealand, Pacific peoples had developed rich understandings of, and practices within, the marine environment. Marine spatial management has historic roots in policies, processes and practices that nations have been applying to marine spaces for many centuries, including Pacific nations' use of space and time to protect and regulate marine resources.¹

There are many common threads that run through Pacific understandings and practices connected to the marine environment; they have been described as “dialects of each other”.² The relationship to Tangaroa, an ocean deity/ancestor, can be found across the region.³ Rāhui has also been used by many different cultures.⁴ The practice of rāhui is often underpinned by the concept of tapu, a prohibition that can be applied to places that must be left alone.⁵

Māori tikanga and kawa developed from the tradition of Pacific ancestors who settled on groups of small islands integrally connected to the sea.⁶ The wider cultural practices, rituals and world view of Māori were intimately entwined with the oceans because of these ancestral connections. But they were reinforced by the realities of life in Aotearoa New Zealand where the sea provided significant food sources and major transport routes.

As a Western system of marine management dominated Aotearoa New Zealand after European settlement, tikanga was eroded. Yet, although it is often constrained by the extent to which Māori have control over resources and their management, tikanga is still very much alive and operates on a day-to-day basis in Māori communities. Indigenous scholarship has also made strides in recent years to recover or better recognise traditional methods of managing the marine environment as well as traditional knowledge or wisdom (mātauranga).⁷

A spotlight on the Marine and Coastal Area (Takutai Moana) Act

A recent decision of the High Court in *Re Edwards*⁸ made some poignant comments on the intersection between the dual systems of oceans management in Aotearoa New Zealand. This was in the context of claims to the foreshore and seabed. The importance of the decision is, for present purposes, not its specific ruling but its reminder to be aware of the difference between tikanga itself and the hybrid constructs that seek to formalise it in a Western system.

The Marine and Coastal Area (Takutai Moana) Act 2011 (MACA Act) provides an avenue for tangata whenua to establish customary marine title over areas of the foreshore and seabed. In ruling on various legal matters, the Court followed the approach of the Court of Appeal in the earlier *Ngati Apa* decision whereby “the existence and extent” of customary rights was not to be gauged by “applying common law concepts but [rather] from applying tikanga.”⁹ This builds on previous decisions which recognised the importance of tikanga as *part* of the common law of Aotearoa New Zealand.

In short, the Court found that the connections between Māori and te moana are strong, and they are not presumed to have been eroded by Western interventions like raupatu (confiscation without right), occupation, or the exercise of resource consents. It found that “in terms of tikanga, the confiscation of lands and destruction of property would not have severed the connection with the takutai moana.”¹⁰ With respect to existing resource consents, it was held that “[n]othing in the RMA shows an intention to extinguish Māori customary rights.”¹¹ While activities relating to infrastructure “may well amount to substantial interruption”, whether this has occurred is to be determined by an examination of the facts in each case “not by applying a presumption”.¹²

When addressing an opening submission of counsel that “there was very little that was ‘customary’ left in the concept of customary marine title” in the legislation, the Court noted that the restoration of customary rights under the MACA Act is “given legal expression in accordance with the Act”.¹³ The upshot is that, although the MACA Act refers to reinstating pre-existing customary entitlements and translating “inherited” rights into “legal” rights and interests, the “specific rights actually conferred

by the Act are much narrower and more limited than the customary title and rights that Māori would have enjoyed and exercised in the foreshore and seabed as at 1840".¹⁴

This means that, although the *existence* of new legal rights under the MACA Act is to be determined by (at least in part) looking at tikanga, the extent of such rights falls short of actually enabling tikanga to be exercised. It could therefore be argued that the legislation continues to *constrain* the ability to do so. However, the decision does make clear that the MACA Act does not *create* or *replace* tikanga, which continues to exist alongside legislative constructs – as it has always done.¹⁵

As mentioned in Chapter 1, we are not attempting to *reform* tikanga. We are not the ones to undertake such an exercise. In any case, tikanga evolves through practice over time, and is not amenable to sharp or formal “reforms” such as legislative amendment or case law. That said, while our work is concerned with the “formal” system of legislation, institutions and so forth, it is also about the extent to which this accommodates te ao Māori through: (1) te Tiriti o Waitangi obligations; and (2) considering where the system can best *intersect* with a parallel system based on tikanga.

Tikanga Māori is a system of oceans management in its own right, and it intersects with the system of legislation, institutions and formal tools. While it is the latter that we are seeking to reform (and not tikanga itself), part of that involves thinking about where the systems intersect and how the formal system can provide for and be informed by tikanga.

3.2 Describing the current system

We refer readers to Appendix 1 for a more extensive summary of the current system, but some high-level observations can usefully be made here. Most obviously, there is a great deal of complexity. This is reflected in the multiplicity of statutes that exist within the oceans management system, and which span it and other systems. There is not a single place like an “Oceans Act” where we can go for all things marine. We have separate frameworks for resource management, conservation, fisheries, transport, climate change, biosecurity, mining, and many other things. These are matched by an equally diverse range of institutions that administer and operate them and hundreds, if not thousands, of tools that operate under them.¹⁶

In Figure 3.1, we outline the key statutes that form the core of the current oceans management system, and show their spatial application.



Cockle harvesting, Kawakawa Bay

Family of statutes	Statute	Spatial application		
		Land/freshwater	Territorial sea	EEZ and extended continental shelf
Resource management	Resource Management Act 1991			
	Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012			
Fisheries	Fisheries Act 1996			
	Treaty of Waitangi (Fisheries Claims) Settlement Act 1992			
	Māori Commercial Aquaculture Claims Settlement Act 2004			
	Māori Fisheries Act 2004			
	Fisheries (Quota Operations Validation) Act 1997			
Shipping	Maritime Transport Act 1994			
Biosecurity	Biosecurity Act 1993			
Conservation	Conservation Act 1987			
	Marine Reserves Act 1971			
	Wildlife Act 1953			
	Marine Mammals Protection Act 1978			
	Hauraki Gulf Marine Park Act 2000	(islands and catchments)	(specific area)	
	Fiordland (Te Moana o Atawhenua) Marine Management Act 2005		(specific area)	
	Sugar Loaf Islands Marine Protected Area Act 1991		(specific area)	
	Kaikōura (Te Tai o Marokura) Marine Management Act 2014		(specific area)	
Climate change	Climate Change Response Act 2002			
Mining	Crown Minerals Act 1991			
	Continental Shelf Act 1964			
Other	Heritage New Zealand Pouhere Taonga Act 2014			
	Marine and Coastal Area (Takutai Moana) Act 2011			
	Submarine Cables and Pipelines Protection Act 1996			

Figure 3.1: Key statutes that form the core of the current oceans management system, and their spatial application

There are also statutes that do not address marine management specifically (in the sense of activities occurring in the oceans), but which regulate or guide human activities that can have consequential impacts on it. Examples include the Land Transport Management Act 2003, Urban Development Act 2020, Building Act 2004, Litter Act 1979 and Waste Minimisation Act 2008. Similarly, the RMA deals with pollution from catchments, coastal development and noise (all of which impact on the marine space), and various conservation laws protect and manage species that travel between the sea and land/freshwater.

Finally, there is a variety of statutes that establish various aspects of the system's architecture, but do not directly restrict or influence human activities. Some of these are marine focused, but others are not (where, for example, they create institutions or processes that span land and sea). They include the Territorial Sea, Contiguous Zone, and Exclusive Economic Zone Act 1977 (not to be confused with the EEZ Act), Environmental Reporting Act, Local Government Act 2002 (and related local government legislation), Environmental Protection Authority Act 2011 and Environment Act 1986 (see Figure 3.2).

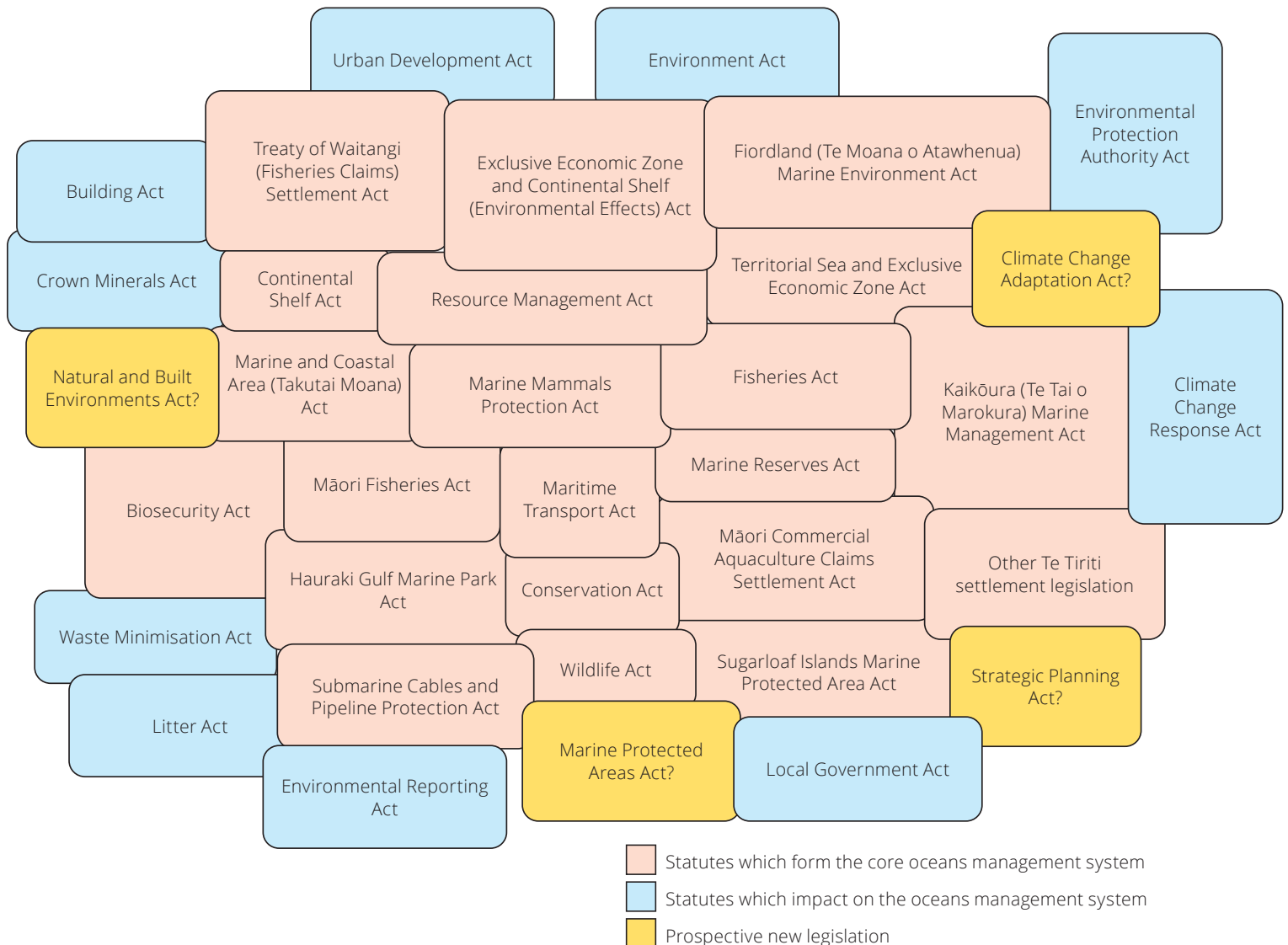


Figure 3.2: Statutes which form the core of, or impact on, the oceans management system

The array of statutes in the current system means that they interact with each other in complex and sometimes unclear ways. Such interactions are too numerous to list here, and are explored through a more critical lens when we look at legislative design options in Chapter 11. However, a few are worth noting.

- There is an overlapping and ultimately unclear relationship between the RMA (which controls activities having impacts on the marine environment) and the Fisheries Act (which manages fish stocks and the impacts of fishing on the marine environment). The Court of Appeal has recently made a significant ruling on that relationship in the *Motiti* case (see Chapter 11).¹⁷
- There is a sharp spatial distinction between the jurisdiction of the RMA (out to 12 nautical miles) and the EEZ Act (beyond 12 nautical miles). Cross-boundary activities are framed under the latter (and there are processes to coordinate these across the statutes), but that relationship can still be unclear where effects, rather than activities, span the artificial jurisdictional line. A similar spatial distinction is the basis for the relationship between the Crown Minerals Act 1991 and the Continental Shelf Act 1964.¹⁸
- Marine biosecurity functions are discharged under both the RMA and Biosecurity Act 1993.
- The MACA Act intersects with processes under the RMA and conservation legislation, including through special input into planning processes and a requirement for additional permission rights to be obtained.
- Generally, conservation laws form an additional layer on top of more general frameworks like the RMA and EEZ Act (ie restrictions under both will apply in a particular space). However, some interface in more complex ways (eg where provisions under one, like the Hauraki Gulf Marine Park Act 2000, are deemed to be a New Zealand Coastal Policy Statement (NZCPS) under the RMA).
- Marine-focused Tiriti settlement legislation stands alone, but also intersects with broader legislation like the Fisheries Act and the RMA¹⁹ (often through the inclusion of specific amendments within the latter).
- The rate of depletion of minerals (including oil and gas), and decisions about its allocation, are carved out from the RMA and EEZ Act (and placed in the Crown Minerals Act and Continental Shelf Act) but these

Acts retain jurisdiction over the effects of mining activities on the marine environment beyond the resource itself.

- Environmental jurisdiction (especially relating to the discharge of pollutants) is split between the Maritime Transport Act 1994 and the EEZ Act, despite a substantial shift of functions from the former to the latter a few years ago. In essence, the Maritime Transport Act governs discharges from most ships as well as oil spill preparedness and response, while the EEZ Act covers all other discharges and dumping in the EEZ.
- The RMA provides for councils to monitor and report on the state of their marine environment, but other legislation does not have such provisions (eg the EEZ Act and Fisheries Act), and at a national level more integrated reporting is done under the auspices of the Environmental Reporting Act.
- The Climate Change Response Act 2002 requires the creation of emissions reduction plans, but tools under other legislation like the RMA and EEZ Act (and potentially the Fisheries Act) could be used to achieve them. It is still unclear how this relationship will play out in practice.

Of particular importance is the Tiriti settlement legislation relating to fisheries and aquaculture (see spotlights below).



Salmon farm, Marlborough Sounds

Raewyn Peart

A spotlight on the Māori fisheries te Tiriti settlement

When the QMS was introduced in 1986, the creation of private property rights in fisheries was challenged by tribes of the Far North Muriwhenua, who took a claim to the Waitangi Tribunal.²⁰ The basis of the a claim was that the QMS failed to recognise the prior protected rights of Māori to fisheries under te Tiriti.²¹ In 1988, the Waitangi Tribunal released its report, concluding that the QMS fundamentally conflicted with the principles and terms of te Tiriti.²² The Tribunal recommended that Muriwhenua Māori be given quota in exchange for giving up the fishery rights that were protected under te Tiriti.

An interim settlement recognising Māori fishing rights was implemented through the Māori Fisheries Act 1989. This provided for the establishment of the Māori Fisheries Commission and the transfer of \$10 million and 10 percent of existing quota from the Crown to the Commission.²³ A final settlement was implemented

by the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992.²⁴ As part of this settlement, the Crown provided \$150 million to Māori to purchase a half share in the fishing company Sealord Products Limited²⁵ and promised that 20 percent of all new quota species brought into the QMS would be given to Māori. The Māori Fisheries Commission became the Treaty of Waitangi Fisheries Commission.²⁶ The Commission was responsible for managing fisheries assets on behalf of Māori and facilitating their allocation and transfer to iwi.

The allocation process did not commence until the enactment of the Māori Fisheries Act 2004, which set out a formula for classifying and allocating new quota based on determinations of iwi population and coastal entitlements. Te Ohu Kai Moana Trust was established to replace and fulfil the role of the Treaty of Waitangi Fisheries Commission.²⁷ Most quota has now been allocated to iwi.



Longlining, Hauraki Gulf

A spotlight on the Māori aquaculture te Tiriti settlement

The Māori Commercial Aquaculture Claims Settlement Act 2004 provides for the full and final settlement of Māori claims to commercial aquaculture arising after 21 September 1992.²⁸ Under that Act, iwi are to receive a representative 20 percent of the value of all aquaculture space that has been consented since 21 September 1992. The settlement recognises rights in aquaculture under te Tiriti, while customary rights are addressed under separate legislation.²⁹

The Settlement Act established the Māori Commercial Aquaculture Settlement Trust to receive regional aquaculture settlement assets from the Crown.³⁰ Te Ohu Kaimoana is responsible for the allocation and transfer of settlement assets to iwi.³¹ Entitlements to aquaculture assets are determined and allocated on a regional basis.³² Iwi are required to register as an “iwi aquaculture organisation” in order to receive assets from Te Ohu Kaimoana.³³

The form of settlement obligations has varied over time in response to legislative changes to aquaculture management itself. To date, there have been three distinct phases in the settlement process.³⁴

1. Space that was consented for aquaculture between 21 September 1992 and 31 December 2004 was treated as “pre-commencement space”. During this period, settlement assets could take the form of cash, authorisations to develop space, or the transfer of existing marine farms. In practice, iwi received cash to meet these settlement obligations.
2. Space that was consented for aquaculture between 1 January 2005 and 30 September 2011 was treated as “interim aquaculture management area space”. During this period, settlement obligations were to be fulfilled in the form of authorisations to develop 20 percent of designated aquaculture management areas (AMAs).
3. For space that has been consented after 1 October 2011 (“new space phase”), regional agreements between iwi and the Crown have been used to reach settlement. Under the “new space” mechanism, prospective aquaculture

development can be forecast and provided for in settlement obligations. Consequently, iwi have the option of receiving monetary settlement in lieu of (uncertain) future space. Under regional agreements, a mixture of assets can be delivered to iwi including cash, authorisations to develop space, or a combination of both.

Due to the constantly changing context around aquaculture, the settlement process is still ongoing.

We have many statutes in the current oceans management system. This system has not come into being all at the same time, and has emerged and changed over decades in an organic and piecemeal fashion. The statutory frameworks in the current system, and the tools and processes under them, interact with each other in complex ways.

A description of the system’s legislative frameworks (see Appendix 1), and the connections between them, does not present the whole picture or complexity of the system. An institutional lens is important too, because various institutions have roles under multiple statutes or have mandates that go beyond legislation. These can have quite different characteristics – central, regional or local (eg the Environmental Protection Authority (EPA), regional councils, iwi/hapū); independent or accountable (the Parliamentary Commissioner for the Environment, various Ministers of the Crown); or focused only on the sea or on subjects that span the land-sea divide (Maritime New Zealand, the Environment Court). They can be designed to interact with each other in many different ways (co-operatively, in tension, or hierarchically).³⁵ We explore various maritime institutions further in Chapter 12 when we consider future institutional design options.

Some of the diversity of institutions in the current system, and where they fit in terms of three of their key characteristics (centralisation, independence³⁶ and degree of focus on marine issues), is shown in Figure 3.3. Of particular note is the recent establishment of a ministerial portfolio for oceans and fisheries, and associated Oceans Secretariat, signalling a stronger leadership role within the political sphere of central government for taking action on oceans in a holistic manner.


	Centralised		Devolved
Independent 	Higher Courts	Iwi	Hapū/whanau
	Environment Court		
	Waitangi Tribunal		
	Parliamentary Commissioner for the Environment		
	Climate Change Commission		
	Te Ohu Kai Moana		
	Environmental Protection Authority	Hauraki Gulf Forum	Fiordland Marine Guardians
	Conservation Authority		Kaikōura Guardians
	Maritime New Zealand	Harbour masters	
	Statistics New Zealand	Conservation boards	
	Heritage New Zealand Pouhere Taonga		
	Government departments (including Department of Conservation, Ministry for the Environment, Ministry for Primary Industries/Fisheries New Zealand, Ministry of Transport, Ministry of Business, Innovation and Employment, Te Puni Kokiri, Treasury) and working partnerships (eg Oceans Secretariat)		
	Accountable	Ministers of the Crown (including Oceans and Fisheries, Conservation, Environment, Energy)	Regional councils

Figure 3.3: Institutions within the current marine management system, and where they fit in terms of centralisation, independence and degree of focus on marine issues

Figure 3.3 by no means captures all the institutions in the oceans management system. Dozens if not hundreds of others exist. However, there are several interesting features of the existing system when looked at through an institutional lens. For example, there are relatively few entities focused exclusively on the marine area (although divisions within some institutions may have this focus). More common are those whose concerns span land and sea. There is also a much wider range of institutions at a central than local level, reflecting that central bodies have a wide spatial coverage (the whole country) but are more noticeably divided across subject areas (eg climate change mitigation, conservation) or tasks (eg policy creation vs enforcement). At the more devolved level, institutions (eg councils) tend to have a broader range of functions integrated into a single entity, but their spatial coverage is narrower.

It is also worth keeping in mind the non-statutory features of the current system. These arise partly because institutions typically have broader mandates and powers of general competence beyond the specific roles and duties placed on them by statutes like the RMA and Fisheries Act. For example, Ministers, councils and government departments are particularly adept at creating strategies, policies and programmes, and supporting

initiatives through funding and investment. It is not always easy to say that all these things are part of the “system” – for example, some are more comfortably regarded as political manifestos for *changing* the system,³⁷ while others are short-term grants of money – but some are significant as parts of the system itself. For example, *Te mana o te taiao – the Aotearoa New Zealand biodiversity strategy 2020* is a non-statutory document, but one required of the government to discharge the country’s obligations under international law.³⁸ Various funds are also significant, such as the *Jobs for Nature* investment programme. The *Marine protected areas policy and implementation plan* (2005) and *Marine protected areas: classification, protection standard and implementation* (2008), despite their age, remain the latest policy developed specifically for MPAs in Aotearoa New Zealand.³⁹ These are also non-statutory.

A feature of the current oceans management system is its considerable complexity. We have many separate statutes and institutions. While there may be scope for rationalisation and simplification, the system will, to some extent, always be complex, because it manages complex issues.

3.3 International law

Aotearoa New Zealand's domestic oceans management system operates within a broad framework of international law, which is primarily treaty-based.⁴⁰ We provide a more extensive account of international legal obligations in Appendix 2.

Some international treaties are multilateral (to which many countries have signed up), while others are regional (eg regional fisheries agreements).⁴¹ Some are bilateral, such as treaties establishing borders between EEZs. It is not always clear whether treaties are about "resource management", as some (such as the International Convention for the Prevention of Pollution from Ships) or "MARPOL" can cover a wide variety of matters that overlap (eg health and safety requirements for ships, navigation).

Perhaps most importantly, the United Nations Convention on the Law of the Sea (UNCLOS) lays out basic jurisdictional matters by creating a series of zones (see Figure 3.4). Basically, the further from shore one gets, the weaker the jurisdiction of the coastal state becomes and the greater the freedoms enjoyed by other states or ships.⁴²

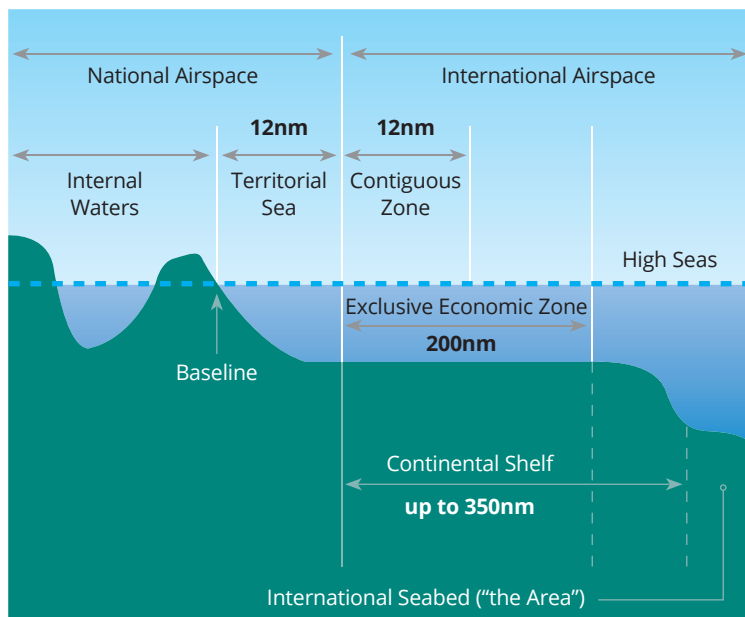


Figure 3.4: Maritime zones under UNCLOS
(The breadth of each zone is shown in nautical miles (nm)).

Aotearoa New Zealand's sovereignty only extends out to the edge of the territorial sea. Within the EEZ the country has more limited sovereign rights and the Area is not part of its territory. These rights include the

ability to explore, exploit, conserve and manage natural resources (including marine life, oil, gas and minerals) as well as the ability to economically exploit the zone for activities such as energy production. Other countries retain the freedom of navigation and overflight within the EEZ and can lay submarine pipes and cables within it. Beyond the EEZ, sovereign rights over the continental shelf are even further restricted to the exploitation of minerals, gas and other non-living resources within the seabed and subsoil and sedentary species on the seabed (excluding the harvest of mobile fish).

Alongside its jurisdictional matters, UNCLOS contains substantive environmental obligations, although most are high level. It requires the adoption of laws and regulations to "prevent, reduce and control pollution" arising from a range of activities including land-based sources, seabed activities, structures, vessels, dumping and the atmosphere.⁴³

A particularly interesting consequence of UNCLOS *conferring* rather than just *recognising* coastal state jurisdiction in the EEZ is that this jurisdiction is said to be *contingent upon* meeting the treaty's substantive environmental obligations. Although there is no meaningful enforcement mechanism, and it would be hard to establish non-compliance, it remains that a failure to protect the marine environment could, in theory, result in the forfeiture of sovereign rights over large parts of the ocean, not just being in breach of obligations.

For fisheries there is an expectation under UNCLOS that states will pursue "optimum utilisation" in the EEZ.⁴⁴ This requires the government to grant surplus catch to other states if national fishers cannot harvest the total allowable catch (TAC) set in any given year.⁴⁵ This is designed to achieve greater efficiency and equity between states in terms of access to marine resources, but it has potential environmental ramifications. What would the consequences be if, for example, Aotearoa New Zealand were to transition from fishing to aquaculture? The extent of this normative obligation is unclear as is its enforceability.

While UNCLOS provides a broad framing, other international conventions provide more specificity in some areas of marine management. Many of these are designed to manage inter-state relations (eg ships coming from elsewhere) and issues related to "common" areas like the high seas. Although they tend to be less detailed, others are intended to bind states in terms of their approach to more substantive issues within their own marine territory. We provide more detail of these in Appendix 2, and a summary of key agreements is provided in Figure 3.5. Of particular interest are strategic aspects like the Aichi Biodiversity Targets.

Convention	Obligations
United Nations Convention on the Law of the Sea 1982 (1996)*	<ul style="list-style-type: none"> • Exert sovereignty over the territorial sea, EEZ and extended continental shelf. • Protect and preserve the marine environment. • Protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species. • Determine the TAC and, taking into account the best scientific evidence, ensure that stocks are not endangered by overexploitation. • Maintain and restore populations of harvested species at levels which can produce the maximum sustainable yield (MSY). • Promote optimum utilisation of living resources in the EEZ by determining the country's capacity to harvest the living resources of the EEZ. • Prevent and control marine pollution.
United Nations Convention on Biological Diversity 1992 (2005)	<ul style="list-style-type: none"> • Establish a system of protected areas and areas where special measures are needed to conserve biological diversity. • Develop guidelines to select, establish and manage these areas. • Regulate and manage biological resources to ensure conservation and sustainable use. • Promote the protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings. • Promote environmentally sound and sustainable development in areas adjacent to protected areas. • Rehabilitate and restore degraded ecosystems and promote the recovery of threatened species. • Regulate, manage and control the risks associated with the use and release of living modified organisms resulting from biotechnology. • Prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species. • Endeavour to provide the conditions needed for compatibility between present uses and the conservation of biological diversity and the sustainable use of its components. • Respect indigenous and local community knowledge. • Protect threatened species and populations. • Where a significant adverse effect on biological diversity has been determined, regulate or manage the relevant processes and categories of activities. • Integrate consideration of conservation and sustainable use of biological resources into national decision-making. • Avoid or minimise adverse impacts on biological diversity. • Protect and encourage customary use of biological resources in accordance with traditional cultural practices to the extent they are compatible with conservation and sustainable requirements.

**Aichi Biodiversity Targets
2010 (2010)**

- Effectively integrate biodiversity values in development, planning processes, national accounting and reporting systems.
- Eliminate incentives and subsidies that harm biodiversity and develop and apply those that incentivise conservation and sustainable use.
- Governments, business and stakeholders to have plans to achieve sustainable production and consumption and keep impacts of the use of natural resources within safe ecological limits.
- Halve the rate of loss of habitats or bring it to zero and reduce degradation and fragmentation.
- Manage and harvest all fish and invertebrate stocks sustainably.
- Manage agriculture, aquaculture and forestry sustainably, ensuring conservation of biodiversity.
- Bring pollution to levels that are not detrimental to ecosystem functioning.
- Identify invasive alien species and pathways and control and eradicate priority species.
- Minimise the anthropogenic pressures on vulnerable ecosystems impacted by climate change and ocean acidification.
- Conserve and manage 17 percent of terrestrial and inland water and 10 percent of coastal and marine areas.
- Restore and safeguard ecosystems that provide essential services, including services related to water and those that contribute to health, livelihood and wellbeing.
- Restore 15 percent of degraded ecosystems.
- Adopt a National Biodiversity Strategy and Action Plan.
- Respect and integrate traditional knowledge and customary use.
- Fully integrated community engagement at all levels.

**Cancun Declaration
on Mainstreaming
the Conservation and
Sustainable Use of
Biodiversity for Well-being
2016 (2016)**

- Integrate policies, plans and programmes and legal and administrative measures and budgets for the conservation, sustainable use, management and restoration of biological diversity and ecosystems.
- Incorporate biodiversity values in national accounting and reporting systems.
- Strengthen institutional support and capacities for biodiversity mainstreaming.
- Promote conservation, sustainable use, management and restoration of biodiversity as a basis for achieving resilient, sustainable and inclusive cities and human settlements, and climate change adaptation and mitigation.
- Promote sustainable growth as reducing the ecological footprint, combating land degradation and desertification, and addressing social inequality.
- Increase and strengthen ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures.
- Facilitate the active and effective involvement of all relevant actors and stakeholders.
- Strengthen indigenous peoples and local communities' capacities to implement the Convention on Biological Diversity by respecting their rights and customary, sustainable use of biodiversity and fair and equitable sharing of benefits arising from their traditional knowledge and practices.
- Improve the regulatory framework for private sector activities, enhance incentives, and promote tools for the conservation and sustainable use of biodiversity.

**Cancun Declaration
on Mainstreaming
the Conservation and
Sustainable Use of
Biodiversity for Well-being
2016 (2016)**

(continued)

- Promote sustainable agriculture.
- Adopt a holistic integrated view and assessment of ecosystems and the interlinkages between agriculture and biodiversity.
- Use integrated and cross-sectoral planning processes to reduce inefficiencies and increase productivity whilst avoiding negative impacts on ecosystems and associated biodiversity.
- Conserve and cultivate native varieties.
- Prevent agricultural pollution.
- Control pests and diseases.
- Promote sustainable consumption and production patterns.
- Integrate the ecosystem approach into fisheries policies, programmes and plans.
- Establish actions for the conservation and sustainable use of fishery resources to ensure the long-term viability of the fishing sector.
- Conserve marine, coastal and inland water ecosystems, recognising their role as carbon sinks.
- Enhance actions to reduce pollution, including noise and plastic materials.
- Promote and encourage aquaculture that uses native species.
- Prevent, control and eradicate invasive alien species.
- Develop strategies to reduce unregulated and unreported fishing and illegal trade.
- Strengthen the implementation of the *FAO Code of Conduct for Responsible Fisheries*.
- Promote sustainable forest management as a dynamic and evolving concept for all types of forest.
- Emphasise the relevance of forests as carbon sinks and their critical role for developing strategies for climate change adaption and mitigation.
- Design and promote incentive packages for restoration, conservation and sustainable use.
- Promote participation of the private sector in the development of production chains to reduce deforestation and degradation.
- Promote the *International Agreement on Forests*.
- Adopt practices for sustainable blue and green infrastructure.

**Convention on International
Trade in Endangered
Species of Wild Fauna and
Flora 1973 (1989)**

- Protect approximately 5,800 species of animals and 30,000 species of plants from trade through a system of permits and certificates.

United Nations Agreement for the Implementation of the provisions of UNCLOS relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks 1995 (2001)

- Adopt measures to ensure the long-term sustainability of straddling fish stocks and highly migratory fish stocks and promote the objective of their optimum utilisation.
- Ensure that such measures are based on the best scientific evidence available and are designed to maintain or restore stocks at levels capable of producing MSY.
- Assess the impacts of fishing, other human activities and environmental factors on target stocks.
- Adopt conservation and management measures for species belonging to the same ecosystem with a view to maintaining or restoring populations of such species above levels at which their reproduction may become seriously threatened.
- Minimise pollution, waste, discards, catch by lost or abandoned gear, catch of non-target species (both fish and non-fish species), and impacts on associated or dependent species.
- Protect biodiversity in the marine environment.
- Take measures to prevent or eliminate overfishing and excess fishing capacity and to ensure that levels of fishing effort do not exceed those commensurate with the sustainable use of fishery resources.
- Collect and share complete and accurate data concerning fishing activities.
- Promote and conduct scientific research and develop appropriate technologies in support of fishery conservation and management.
- Implement and enforce conservation and management measures through effective monitoring, control and surveillance.

FAO Code of Conduct for Responsible Fisheries 1995 (1995)

- Adopt clear and well-organised fishing policies that have been developed in cooperation with all the groups with an interest in fisheries.
- Establish new regional fisheries organisations or strengthen existing organisations that aim to cover the cost of conservation, management and research activities for their members.
- Minimise negative impacts on the environment of fishing and fishing processes in ways that reduce waste and preserve the quality of fish caught.
- Ensure fishers keep records of their fishing operations.
- Have enforceable laws with procedures for determining and punishing violators – punishment for violations could include fines or even the removal of fishing licences if violations are severe.
- When developing fisheries policies consider the costs and benefits of fishing and the environmental and social impacts of fishing and use the best scientific information available whilst taking into account traditional fishing practices and knowledge.
- When information is absent take the precautionary approach to setting fishing limits.
- Encourage people and organisations to share their views on fishing issues, and particular attention should be given to the needs of local people.
- Prohibit dynamiting, poisoning and other destructive fishing practices.
- Avoid overfishing and ensure the size of the fishing fleet should not be too large for the natural supply of fish.
- Understand the effects of fishing gear on the environment (impacts on coral reefs, for example) before using a new fishing gear.

FAO Code of Conduct for Responsible Fisheries 1995 (1995)
(continued)

- Ensure fishing methods and gear are selective and designed to minimise waste and promote high survival rates for escaping fish.
- Ensure gear minimises the catching of fish species that are not wanted (non-target or bycatch fish) or that are endangered.
- Phase out fishing gear and fishing methods that are not selective or which cause high levels of waste.
- Protect important fish habitats such as wetlands, mangroves, reefs and lagoons from destruction and pollution.
- Where natural disasters harm fisheries resources take emergency conservation and management measures when necessary.
- Conserve genetic diversity and minimise negative effects of farmed fish on wild fish populations while increasing supplies of fish for human consumption.
- Avoid disputes and conflict between different users of resources.
- Ensure that the livelihoods of local communities are not negatively affected by aquaculture developments.
- Establish procedures for monitoring and assessing the environmental effects of aquaculture.
- Monitor the types of feed and fertiliser used in farming fish.
- Take into account local communities and their ways of living and opinions in the coastal planning process.
- Carry out fisheries practices in a way that avoids conflict among fishers and other users.
- Support fisheries research efforts, monitor the conditions of fish and their habitat and gather data on the effects of different types of fishing gear on target populations and the environment generally.

United Nations Framework Convention on Climate Change 1992 (1993)

- Adopt national policies to mitigate climate change through limiting anthropogenic (human-induced) emissions of greenhouse gases and protecting and enhancing greenhouse gas sinks and reservoirs.
- Report detailed information on greenhouse gas inventories, national actions and projected human-induced greenhouse gas emissions and removal by sinks, according to timeframes set in the Convention.
- Take into account climate change considerations in relevant social, economic and environmental policies and actions.
- Promote, and cooperate in, relevant scientific and technological research and exchange information in such areas (including transferring technology to developing countries).
- Provide additional financial resources to meet the agreed full costs incurred by developing countries in complying with their obligations under the Convention.
- Promote public awareness of, and education about, climate change issues.

Kyoto Protocol to the United Nations Framework Convention on Climate Change 1997 (2005)

- Reduce greenhouse gas emissions to 1990 levels.
- Submit an annual inventory of greenhouse gas emissions to the Convention.
- Formulate, implement and publish regular updates to national and regional programmes that contain measures to mitigate climate change and facilitate adequate adaptation to climate change.
- Cooperate internationally in relation to policies and measures (including scientific and technical research and development) and facilitating public awareness and access to information on climate change.

<p>Paris Agreement to the United Nations Framework Convention on Climate Change 2015 (2016)</p>	<ul style="list-style-type: none"> • Prepare, communicate and maintain successive nationally determined contributions and pursue domestic measures to achieve them. • Communicate nationally determined contributions every five years and ensure each represents a progression beyond the previous one. • Regularly report on emissions and how they are tracking to meet the target. • Engage in adaptation planning which involves submitting and periodically updating an adaptation communication of priorities, implementation and support needs, plans and actions. • Provide financial support to assist developing countries' mitigation and adaptation efforts.
<p>International Convention for the Prevention of Pollution from Ships 1973 (1998)</p>	<ul style="list-style-type: none"> • Prevent pollution of the marine environment from oil and oily matter, harmful substances carried in packaged form, sewage and garbage from ships. • Prevent air pollution from ships.
<p>Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972 (1975) (and subsequent Protocol)⁴⁶</p>	<ul style="list-style-type: none"> • Prohibit the dumping of all wastes except: dredged material; sewage sludge; fish waste or material resulting from industrial fish processing operations; vessels and platforms or other man-made structures at sea; inert, inorganic geological material; organic material of natural origin; bulky items primarily comprising iron, steel, concrete and similar unharmed materials; and carbon dioxide streams from carbon dioxide capture processes.

* Years in parentheses indicate when Aotearoa New Zealand became a party to the agreement

Figure 3.5: Summary of international legal obligations related to the oceans



Raewyn Peart

Port Nelson

Although it is not concerned specifically with the marine area or the environment, another important element of international law is the United Nations Declaration on the Rights of Indigenous People (UNDRIP). This stands alongside te Tiriti o Waitangi as a foundation for debates about the Crown's obligations to mana whenua in a future system, and has led to recent documents like *He Puapua* and *Matike Mai* (see Chapter 4) which go beyond the principles of te Tiriti into a broader exploration of constitutional issues and power sharing possibilities.

A spotlight on UNDRIP

UNDRIP is a comprehensive human rights statement on the rights of indigenous peoples. It was adopted on 13 September 2007 with 144 states voting in support, 11 abstentions and four opposed.⁴⁷ Aotearoa New Zealand was one of the states that initially opposed the Declaration and it was not formally endorsed by the government until 20 April 2010.⁴⁸

UNDRIP covers a broad range of individual and collective rights and freedoms. It expressly recognises that indigenous peoples have the right to be free from discrimination⁴⁹ and to self-determination.⁵⁰

The self-determination article is widely recognised as the most important right in the Declaration,⁵¹ not least because it encapsulates “the right to autonomy or self-government in matters relating to their internal and local affairs”.⁵² The meaning of self-determination and how the right can, or should, be realised, has been contentious.⁵³ During negotiations on the Declaration, states expressed concern at the potential for self-determination to provide for the veto of national legislation or even secession.⁵⁴ Commentators have suggested that the right to self-determination provides opportunities for pluralism and shared authority between Māori and the government (see Chapter 12).⁵⁵

The broader meaning of self-determination is informed by numerous articles in the Declaration. Article 19 requires a state to “consult and cooperate in good faith” with indigenous peoples and to obtain their consent before implementing legislation that may affect them. Article 26 provides for the rights of indigenous peoples to land and resources that were “traditionally owned, occupied or otherwise used or acquired”; and imposes a duty on states to give legal recognition and protection to such lands.

Article 28 expressly provides indigenous peoples with a right to redress, in the form of compensation, for land or resources that were confiscated, taken, occupied, used or damaged without their prior consent. The Declaration also recognises broader rights in respect of the conservation and protection of the environment,⁵⁶ and the importance of maintaining and strengthening spiritual connections to traditional lands and resources.⁵⁷

The original reluctance of the government to support UNDRIP stemmed from uncertainty around the implications of Māori rights to traditional lands and resources, associated rights of compensation, and the potential for Māori to veto legislative changes.⁵⁸ The government was concerned that the nature of the rights affirmed by the Declaration were incompatible with Aotearoa New Zealand's constitutional and legislative arrangements.⁵⁹ It was unclear how the existing rights of Māori under te Tiriti would influence implementation, and there were concerns that the nature of Māori rights in land and natural resources could impact private property interests at a national scale.⁶⁰

The government's eventual endorsement of UNDRIP in 2010 was therefore subject to express caveats.⁶¹ The government emphasised the important role of te Tiriti in protecting existing rights and providing for settlements; and the desire to retain existing institutions and processes that provided for Māori involvement. It still remains unclear how the Declaration is to be implemented by government.

Although this project is not exploring ways in which international law itself might be reformed (and we note the importance of current negotiations around marine protection on the high seas and an international plastics treaty),⁶² such law is important for two reasons: it forms a key part of the current system; and provides obligations which a reformed system will need to fulfil. One important objective of reform will be to ensure that Aotearoa New Zealand is complying with international law. Such obligations also suggest interesting options for domestic reform, including the formalisation of international targets in legislation or institutional mandates.

It is worth noting that international law is constantly evolving. Sometimes this is reflected in formal changes to existing treaties, or the creation of new ones. However, it can also take the form of “soft law”. A reformed system needs to be cognisant of commitments that the country has made

on the international stage through resolutions and declarations. Some of these have been noted above. Indeed, there are opportunities for the country to be a leader on the world stage in this area, given the size and importance of the ocean space we are responsible for.

Aotearoa New Zealand has a number of international obligations and expectations with respect to the marine environment. Although it has broad jurisdiction for “resource management” to the edges of the EEZ, important substantive obligations exist with respect to biodiversity, pollution, fishing and climate change, alongside more general obligations to Māori via the UNDRIP.

3.4 Problems with the current system

The focus of the remainder of this chapter is on describing issues with the current system. Because the system is so vast, we tackle these by themes – categories of systemic problems that arise across multiple frameworks – rather than identifying every single complaint about every statute or institution. This approach inevitably makes the problem definition incomplete (and more specific issues will no doubt need to be addressed through a reform process). We hope, however, that they can be fitted into the categories we provide.

Types of problem

The current system has many problems. Most obviously, if we accept that the outcomes described in Chapter 2 are problems (eg threatened species, habitat loss, social inequities),⁶³ then the existing system that presides over them must, itself, be problematic to a degree. After all, to prevent such problems is a core reason for having the system in the first place.⁶⁴ However, problems with the oceans management *system* are a subtly different thing to the biophysical and social outcomes described in Chapter 2 and are therefore worth looking at separately. This is for two reasons.

First, for some things, the system may be expected to make a *contribution* to solving the problem rather than entirely “fixing” it. In other words, the system can be said to be working “well” even if some degree of problem remains. For example, even the best oceans legislation will not be able to prevent warming and acidifying seas. This does not make climate change any less of a problem, but it does mean that the system has not necessarily failed or is need of an overhaul if climate change occurs. Other measures, including planting trees on land,⁶⁵ private action, and mitigation measures in other countries, are required to contribute as well. Similarly,

for many problems (eg sedimentation from catchments), it might be years before action results in meaningful improvements. The natural world may recover slowly. A well-functioning system may be one in which *trends* are positive or improvements are *predicted*, not one in which everything is perfect straightaway.

Secondly, the system itself can create an entirely *new* range of problems. Even if (in a hypothetically perfect future) the negative outcomes described in Chapter 2 disappeared, the system could still be problematic because of how it operates (who is involved, how long it takes, how costly it is, the values that underpin it) can be as important as the measurable results it generates. That is particularly the case from a te Tiriti perspective. As has been seen in the case of the proposed Rangitāhua/Kermadec Islands Ocean Sanctuary (see spotlight in Chapter 7), process can be as important as outcome.

Problems with the existing system are distinct from the biophysical and social problems outlined in Chapter 2. This is because (1) the existence of a problematic outcome does not *always* mean the system behind it is broken, and (2) a poorly designed system can itself create a wider range of problems through *how* it operates, not just through the tangible outcomes it produces or does not produce.



Forestry harvesting above marine farms in Port Underwood

Raewyn Peart

There is, of course, substantial overlap between biophysical and system problems. Most obviously, the existing oceans management system is squarely responsible for most of the poor biophysical outcomes and trends discussed in Chapter 2. Their very existence indicates a serious systemic failure:⁶⁶

the most significant problem is that the system has failed to achieve what it was always clearly meant to: notably in its establishment and defence of many environmental bottom lines and associated limits on human activities.

The system has not prevented year on year increases in greenhouse gas emissions that are acidifying the seas. It has not prevented the continuation of land uses that have smothered coastal habitats and estuaries in sediment. And it has not prevented the often irretrievably harmful impacts on benthic environments caused by bottom contact fishing methods. The list goes on.

In particular, only patchy progress has been made on biodiversity protection in Aotearoa New Zealand. In 2019, in its sixth national report under the Convention on Biological Diversity, the Department of Conservation noted the country is progressing “at an insufficient rate”.⁶⁷ Work is required to improve national coordination, the integration of protected areas into broader ecosystem management, and information on the social, cultural, economic and ecological values associated with the marine environment.⁶⁸ Summarising deficiencies further, *Biodiversity in Aotearoa: an overview of state, trends and pressures 2020* identified the need to better understand links between biodiversity and ecosystem function in marine communities; there is no comprehensive picture of marine ecosystem integrity, and no national guidelines for consistent assessment of coastal waters.⁶⁹

The existing system has failed to achieve many of the outcomes that it was always intended, and expected, to achieve. This is its most significant problem.

Other problems, however, have arisen because the system was not really designed to do some things it arguably should (or at least should now be expected to) do. For example, it has not resolved allocative questions in a way that is most “fair”, provided meaningfully for targets for environmental enhancement, or driven the deployment of spatial protections in a coherent way.⁷⁰ Part of these deficiencies may be the

result of the market-led ethos of the era during which much of the system was put in place (including the RMA and Fisheries Act), where there was a drive for efficiency over equity and where the government was seen as a trusted manager rather than a change maker to be held accountable for continuing progress towards something *better*.⁷¹

The existing system was not really designed to achieve some outcomes that it may now, in a modern context, be expected to achieve.

Another set of issues with the system has arisen through the manner in which it has evolved over time. It has grown much larger, more complicated, and fragmented than it used to be. Layers of complexity have been added, things have been carved out, and amendments have transformed what were once reasonably coherent statutory schemes into chaotic behemoths that must interact with dozens of other statutes.

The way the system has evolved over time means it has gradually become less coherent and more complex.

Finally, a distinct set of issues reflect inherent tensions that may never be resolved or “fixed” to the satisfaction of all parties (eg the tension between participation, efficiency and timeliness of decision-making, or between the interests of commercial and recreational fishers in a shared resource).⁷² While the balance may need to be shifted in one way or another as times change, we need to be aware of the difference between true system failures and the system simply performing one of its key roles – resolving disputes.

The oceans management system will not always please everyone, but this does not necessarily mean it is broken or problematic at a systemic level. One of its key roles will always be to resolve disputes, and that will produce a perception of winners and losers.

Below, we consider some more specific characteristics of the existing system that can be regarded as problematic. These are cross-cutting characteristics, rather than a comprehensive list of things that might be wrong with particular statutory frameworks or individual decisions.

Weak environmental limits

Not all elements of the current system are fundamentally broken. Some have had notable successes. For example, we have seen the rebuild of a number of stocks under the QMS.⁷³ A significant leap forward was also made in the *King Salmon* litigation when the Supreme Court held that the RMA, through the NZCPS, can set environmental limits that cannot then be undermined in lower-level planning and consenting decisions.⁷⁴ The ban on products containing microbeads through the Waste Minimisation Act, and prohibitions on marine dumping established under RMA regulations, are also forms of a “limit”.

However, overall, the existing system can be said to lack strong environmental limits in the marine area. By this, we mean there are few lines in the sand beyond which impacts are unacceptable and which trigger strict prohibitions on activities or their effects, not just mitigation or trading off of values. As highlighted by the Supreme Court in the *King Salmon* case, “if there is no bottom line and development is possible in any coastal area no matter how outstanding, there is no certainty of outcome ...”.⁷⁵

The lack of such limits can be seen in a number of core frameworks:

- The Marine Reserves Act is powerless to impose area-based protections for reasons other than scientific research, and there is no compulsion to use its tools (ie limits do not exist until a reserve is established). Marine reserves are also unable to be created in the EEZ.
- The RMA lacks consistent national level regulatory limits for activities impacting the marine environment (eg a National Environmental Standard (NES) for wastewater discharges). In fact, national regulation goes so far as to require development that will inevitably impact on the marine area to be permitted (the National Policy Statement (NPS) on Urban Development) or prevents the establishment of controls to prevent impacts (eg the NES for Plantation Forestry and sedimentation).⁷⁶
- Limits under the RMA can exist in theory but not be realised in practice; for example, the NZCPS requires avoidance of adverse effects on areas set aside for protection of indigenous biological diversity under other legislation, such as marine reserves, but has proved insufficient to prevent the consenting of harmful activities higher up in catchments (which, for example, caused the degradation of the Long Bay-Okura Marine Reserve).⁷⁷ Te Whanganui-A-Hei (Cathedral Cove) Marine Reserve has also been impacted by sediment coming out of Whitianga Harbour.⁷⁸
- No firm policy-based limits exist in the EEZ (since policy statements have not been created). Regulations that have been made apply only to a relatively narrow range of activities and provide largely for consenting pathways by which discretion is exercised (eg for deep sea mining) rather than prohibitions on activities or impacts when a limit is reached.
- Although specific place-based restrictions and regulations abound under the Fisheries Act,⁷⁹ these cannot really be regarded as systemic limits, as core sustainability measures (eg protecting habitats of importance to fisheries or preventing destruction of benthic ecosystems through practices like dredging and bottom trawling) are discretionary and have been sparsely used.⁸⁰ Similarly, there are questions as to whether benthic protection areas in the EEZ can be regarded as a true environmental limit, given they are mainly located in areas where the activity they seek to manage (bottom trawling) cannot take place in any event due to physical limitations (ie the protected areas are too deep to trawl).⁸¹
- The TAC set for fish stocks under the Fisheries Act looks like a firm limit. However, there are hidden issues. There is, in practice, no overall limit for the recreational take component. Predicted catch is estimated and controlled through things like bag limits, but there is no line at which recreational fishing must stop. Bag limits do not keep the catch within a harvest cap if people fish more frequently or twice the number of people fish than expected. Provisions allowing for legal discarding in the commercial fishery, where harvested fish are not counted against Annual Catch Entitlement (ACE), arguably turn the TAC into a soft rather than a hard limit.⁸² Further, it is legal for a commercial fisher to harvest above his or her allocation through the payment of deemed values.⁸³
- The TAC is not always set at a level that achieves the outcome sought by a limit (ie the retention of an unfished biomass that leads to MSY),⁸⁴ whether because of a lack of information or a stock assessment being outdated.⁸⁵ Catch limits have not prevented the decline of some fish stocks in practice (eg East Coast tarakihi), because they have been set at the wrong level.⁸⁶ This is illustrated by the fact that, for some stocks, recorded catch is much *lower* than the allowable catch, a potential indication of stock depletion.⁸⁷ And catch limits for single stocks do not necessarily reflect an ecosystem-based limit (ie to support dependent species or avoid trophic cascades), or a limit to protect highly valued species.⁸⁸

- There is a lack of comprehensive limits to protect threatened or valued species. For example, the Wildlife Act does not protect marine life unless it is specifically listed in a schedule to the Act, and very few marine species are listed.⁸⁹ Although there are firm prohibitions on hunting seabirds and other protected marine wildlife under the Act, a statutory loophole allows an uncapped number of them to be killed in fishing gear without recourse to prosecution.⁹⁰ Similar provisions apply to marine mammals under the Marine Mammals Protection Act.⁹¹ There is statutory provision for the development of population management plans for protected marine species, which are designed to impose limits on total mortality caused by fisheries bycatch, but these are not mandatory; are not triggered by the status of a species; and have proven difficult to progress (none have been finalised since the insertion of the provisions in 1996).⁹²

Overall, the system has many tools that *can* impose limits, but often these are not mandatory. Furthermore, limits set in one place can, in practice, be undermined by exceptions or allowances in other places. The process for setting limits can be highly politicised and, in the absence of strong legislative backing, liable to capture by vested interests in terms of the *level at which* they are set. While we have no shortage of strong sounding environmental principles (including in the Fisheries Act,⁹³ RMA⁹⁴ and EEZ Act⁹⁵), in practice they have not often translated into actual regulatory limits on human activity. The *King Salmon* decision highlights some of the inherent shortcomings of the RMA when it comes to the establishment of limits (see spotlight).



Common dolphins, Hauraki Gulf

A spotlight on *King Salmon*: Limitations of environmental limits under the RMA

The *King Salmon* jurisprudence made a significant positive contribution to how environmental limits are recognised under the RMA, and its focus was the coastal environment. The legal position prior to the case was that decision-makers were to engage in reaching what was generally called an “overall broad judgment” when making decisions on plans and consents. That meant a decision-maker had recourse to Part 2 of the RMA in balancing the benefits and costs of a proposal, even if objectives and policies in lower planning instruments were much more specific, directive and protective. As the Randerson Panel said, this approach “allowed environmental limits in plans to be set aside on the basis of advancing [the] social, economic and cultural wellbeing” reflected in Part 2.⁹⁶

In *King Salmon*, the Supreme Court overturned that approach. It emphasised that, in certain circumstances, the RMA was about defending firm environmental bottom lines set under it, not weighing up many factors. Central to the decision was the fact that the NZCPS contained directive and firm provisions concerning the protection of the coastal environment. The Court made clear that national direction could impose firm, policy-based limits and that subsequent lower-level decisions would not be allowed to undermine them by referring back to the wider, more balanced set of considerations in Part 2 of the Act. That was a big step forward, because “the failure of the RMA to deal well with cumulative effects is ... partly rooted in the misinterpretation of its purpose statement”.⁹⁷

Since 2014, the Supreme Court’s message has been applied and refined through a number of other decisions. However, overall, this line of case law still falls short in a number of senses. It has since been made clear that a balancing approach (including in the consenting context) will often still need to happen (eg where there are no firm and directive policies in planning instruments to point to, or where there are multiple provisions that conflict). This is a real issue, because limits are scattered across national direction, regional plans, district plans, policy statements and consents. It is not always clear whether something is a true limit or not, or how flexible it is meant to be. Much depends on the (sometimes tortuous) unpicking of particular words in non-regulatory policies

(like “avoid”) and assessing how dozens of provisions in different documents interact. Even in a reasonably well developed tool like the NZCPS, many important policies are expressed in language much weaker than an obligation to “avoid” harm.⁹⁸

The Supreme Court also stressed that Part 2 is not an operative set of provisions; it sets an expectation that a cascade of subordinate instruments will impose strict protections.⁹⁹ But it does not itself demand that firm limits *are* generated through planning instruments; regional plans are not mandatory, rules are not required, and the government could make the NZCPS less protective if it wished. In the RMA, Parliament has above all created a *framework* for limit setting in the marine environment rather than directly creating limits. The absence of modern MPA legislation to fill some of that gap makes the system even shakier.¹⁰⁰

The important lesson from the Supreme Court is, essentially, that authorities can impose bottom lines if they consider Part 2 demands it (although there is no effective mechanism to ensure action is taken), and it is not permissible to undermine a higher-level authority’s (eg a Minister’s) decision to do so. However, even that may not be watertight. There are ongoing efforts to carve out exceptions to environmental limits for activities that are recognised as having benefits under the NZCPS, for example ports.¹⁰¹

There is an ongoing conversation as to whether the RMA’s proposed replacement – the Natural and Built Environments Act (NBA) – will take a more effective approach to setting environmental limits.¹⁰²

Parts of the existing system seem actively opposed to the setting of limits. For example, marine reserves can be regarded as a key tool in setting limits to prevent biodiversity decline. But under current law, if an objection is raised to a proposal for a new reserve, the Minister must uphold it if he or she is satisfied that the proposed marine reserve would:¹⁰³

- (a) interfere unduly with any estate or interest in land in or adjoining the proposed reserve:
- (b) interfere unduly with any existing right of navigation:
- (c) interfere unduly with commercial fishing:

- (d) interfere unduly with or adversely affect any existing usage of the area for recreational purposes:
- (e) otherwise be contrary to the public interest.

Not only are such criteria extremely broad and discretionary, they go against the imperative, under Aotearoa New Zealand’s international obligations, to increase the spatial protection of the marine environment. Instead, they are regarded as a “nice to have” as long as they do not disturb existing interests.

Finally, restrictions are often established too late in the policy cycle, and in too fragmented a fashion, to really be limits at all. For example, this can be seen in consent conditions on harvesting individual plantation forestry blocks rather than a strategic plan for staggering small coup harvesting and afforestation across a whole catchment; in single species stock assessments under the Fisheries Act which are blind to broader inter-species and habitat interactions; or in the long-standing assumption that regional rules have no place in protecting habitats like kelp forests from the trophic impacts of fishing activity (eg to prevent kina barrens).

While the current system is capable of imposing firm environmental limits, and does so in a number of cases, overall it can be said to lack a robust approach to environmental bottom lines. It is sometimes not clear whether a limit is non-negotiable or not, whether it must be set, or the reasons for which it is to be set in one place over another. This lack of clarity about where (and whether) limits are set can not only create issues for environmental wellbeing, but also uncertainty for businesses which can invest in consent applications only to have them turned down or subjected to unexpected conditions.

Outdated norms and values

There is a strong case that the norms that underpin our legislation do not reflect modern times and concerns. There is an inconsistent approach to te Tiriti across legislation, including the RMA’s requirement to take its principles into account¹⁰⁴ and the EEZ Act’s simple and presumptuous assertion that the provisions of the Act already embed the principles without needing further interpretation.¹⁰⁵ Older legislation is generally silent as to the impact of te Tiriti or its principles, although older marine conservation legislation is tied to the Treaty clause of the more modern

Conservation Act,¹⁰⁶ which has been given new life and potential by the Supreme Court in the *Ngai Tai* decision.¹⁰⁷ There are increasing calls to strengthen such requirements,¹⁰⁸ for example to “give effect” to the principles, or more directly to give effect to te Tiriti itself.¹⁰⁹ The formulation in the EEZ Act, where compliance with te Tiriti is essentially deemed to have occurred in the provisions of the Act rather than guiding subsequent decisions under it, has been subject to particular criticism.¹¹⁰

Many are of the view that a meaningful expression of such principles also needs to flow through to other design features (eg co-governance and the inclusion of mātauranga in decision-making), and not just be a general statement of principle.¹¹¹ Tikanga struggles to find recognition in legal processes focused on a narrow approach to fact finding and evidence,¹¹² although there have been recent efforts to incorporate it more into the mainstream of some statutory decision-making.¹¹³ Criticisms have also been made about processes not respecting te Tiriti, such as for the establishment of MPAs,¹¹⁴ and the length of time and inadequate resourcing for progressing claims for customary marine title under the MACA Act.¹¹⁵ Statutory definitions of wāhi tapu may not always reflect a Māori view of this concept, including the range of reasons that restrictions (eg rāhui) should be imposed in such areas.¹¹⁶

Aside from te Tiriti, the most egregious example of outdated norms might be the Marine Reserves Act, which proclaims that it is concerned only with scientific research.¹¹⁷ It reflects a time in which much deeper concerns like biodiversity protection and climate change were not high on the agenda. Additionally, it lacks statutory guidance for processes now central to environmental decision-making, such as how te Tiriti principles apply, and how public consultation should happen. But there are numerous other examples. The Wildlife Act does not make a clear distinction between the importance of protecting indigenous species and introduced ones, or between threatened and non-threatened ones.¹¹⁸ The Crown Minerals Act and Continental Shelf Act are concerned with maximising the economic benefits of mineral extraction, and do not temper that ambition with a recognition that keeping oil and gas beneath the seabed might be a better approach, or that alternative uses of subsurface space like carbon geo-sequestration might be considered.¹¹⁹ Even something as “modern” as the RMA is oriented towards passive management and mitigation of adverse effects rather than defending limits and striving for positive outcomes for the oceans. That no longer reflects what we are trying to achieve. Many statutes, including the Maritime Transport Act, do not have clear purposes at all. And on the institutional front, the EPA does not have a clear environmentally focused mandate, and it remains unclear what its position in the system should be.

While there are still debates to be had at the margins – for example, whether fish stocks should be managed under a principle of MSY, or what the purpose of the RMA’s replacement should be – our existing system overall reflects a patchwork of norms and objectives that do not sit well with each other or with society’s current values. This has, unfortunately, been the case for some time. The words of the Parliamentary Commissioner for the Environment over 20 years ago ring just as true today, in that:¹²⁰

values and fisheries management systems that permitted the desecration of Spirits Bay in Northland ... and ecosystems such as sea mounts, are simply not good enough to meet New Zealand’s needs in the first years of the 21st century.

The norms underpinning legislation in the current system, overall, are outdated and reflect the concerns of a time different to the present. That is particularly noticeable when it comes to te Tiriti o Waitangi, climate change, and the imperative to protect and restore the natural environment, not just mitigate impacts on it.

Fragmentation, gaps and overlaps

While the system has a number of large statutory schemes like the RMA and Fisheries Act, our package of legislation has overall developed in an ad hoc way. In many cases it provides bespoke workarounds to existing frameworks no longer fit for purpose. For example, special legislation for the Hauraki Gulf reflects not only the importance of this special place and the unique pressures it is under, but also the absence of a statutory regime under which multiple agencies and stakeholders can be compelled to work cooperatively together across silos. Similarly, place-based legislation establishing MPAs (eg in Fiordland, and forthcoming for the Hauraki Gulf to implement its non-statutory spatial plan) in part reflect shortcomings with more general frameworks like the Marine Reserves Act.¹²¹ In other words, there is a risk that existing fragmentation breeds even greater fragmentation.

Furthermore, while various options were on the table as to the ambition of new EEZ legislation, it ended up being a gap filling mechanism, to be squeezed into the existing landscape rather than remodelling it (eg through combining it with the RMA). And it is by no means clear that there is a sensible reason for the fragmentation of conservation legislation whereby marine mammals are protected under one framework and

other marine wildlife under another, or whether place-based protections under the much-maligned Marine Reserves Act should be separate to spatial measures to protect marine mammals under the Marine Mammals Protection Act. There is now talk of even more layers of place-based legislation, including for the creation of fit-for-purpose MPAs (eg in the Hauraki Gulf) and to connect the tools available under other frameworks.¹²² We have a system that is steadily accreting statutes, that is not entirely coherent, and where the new *modus operandi* appears to be to reach for the drafting pen when something needs to be done.

The extent to which this matters or not is an interesting question, and one that is explored in Chapter 11 when we consider legislative design. It is not necessarily the case that a single piece of marine legislation – one act to rule them all – would be desirable. What creates integration in one way might cause fragmentation in another. Fragmentation is also noticeable on the institutional front, which is explored in Chapter 12. This can be seen in gaps, overlaps and confusion about the respective roles of councils and Fisheries New Zealand, institutional boundaries between different

councils, and the ebbs and flows that have characterised the EPA's position in the system relative to councils, ministers and boards of inquiry.

Moreover, the solution is not necessarily legislative or institutional redesign; we could instead work on clarifying the relationship between the purposes (and therefore tools) of different statutes or between the mandates and duties of different institutions. Marine spatial planning may be one way forward (see Chapter 10). However, a more integrated legislative framing may enable more progress to be made and help ensure things do not fall between the cracks.

The current system is fragmented across legislation, institutions and tools. This can lead to gaps, overlaps, inefficiency and a lack of coordination of frameworks that need to work together to achieve positive outcomes.



Waikawa, Marlborough Sounds

Complexity and inaccessibility

A fragmented system creates not just gaps, overlaps and uncertainty, but also causes complexity. Even those deeply involved in the system can find it complicated; it has become more and more inaccessible over time as more processes, carve outs and legislative layers have been added. For example, former Chief Justice Sian Elias put it well when she said that the RMA is “meant to engage communities, not alienate them” and bemoaned the “impenetrability” of the Act.¹²³ There has also been a proliferation of alternative planning and consenting processes. The RMA is twice as long as it used to be. Current decision-making processes for fisheries are slow, cumbersome and largely inaccessible to non-commercial fisheries stakeholders and the general public (with one estimate of eight years to change a TAC).¹²⁴

Other legislation is also complex. The Maritime Transport Act 1994 is a good example.¹²⁵ It has been criticised as a mess¹²⁶ with an incoherent structure overall.¹²⁷ The lack of coherence has been accentuated by the repeal of certain parts of the Act, as Maritime Rules¹²⁸ replaced primary legislative provisions as the means of regulating activity. The Act contains 17 separate interpretation provisions throughout its 29 Parts, and both general and specific provisions which are reinforced by voluminous regulations, Maritime Rules, and Maritime Protection Orders.¹²⁹



Port of Tauranga

The ways in which various pieces of legislation interact with each other is also complicated and often not apparent. It can be hard for one, not intimately acquainted with the law, to know what measures can be taken under the Marine Mammals Protection Act 1978, Fisheries Act 1996 and Wildlife Act 1953, and why the three are so different.

Complexity is not just limited to statutes. To understand how it works, one must be familiar with how markets operate (eg the QMS), the place of non-statutory strategies and policies, and an overwhelming array of regulations, plans, policy statements, existing use rights, orders, and so forth. There is also the multitude of Te Tiriti settlement legislation. The list grows every day. How all these elements of the system interact with each other is not always clear and often requires litigation to determine.¹³⁰ The system will always be complex, but it is apparent that it is much more complex than it needs to be.

The current system is extremely complex and confusing. Fundamental features, such as the interpretation of the purpose of the RMA and its relationship with the Fisheries Act 1996, frequently require resolution in the courts. While the system will always have a degree of complexity, it is by no means clear that the present high-level of complexity is necessary or desirable.

Unclear stewardship/leadership

Legislative and institutional fragmentation not only creates overlaps; it can also create a vacuum of leadership, where agencies struggle to work together or simply assume that responsibility lies elsewhere. A cornucopia of different tools that *can* be used does not automatically mean they *must* or *will* be used. The existing system is, generally, characterised by a strong trust that those responsible for marine outcomes will choose to use the available mechanisms effectively.

While there are positive signals – for example in the recent establishment of a new portfolio for fisheries *and* oceans as well as an Oceans Secretariat to support government marine initiatives (and facilitate sharing of resources), these are not legislated and could be easily undone. We have seen that happen in the abortive attempts to establish an oceans policy two decades ago. While marine issues are by no means simple, shaky leadership can be seen on many fronts. Central government has made little progress on establishing a coherent network of MPAs, or setting controls on damaging fishing methods. The mandatory NZCPS has existed

since the enactment of the RMA, but (in contrast to the enabling of productive activities like forestry) it has not led to national level regulations (an NES for the sea)¹³¹ or a meaningful policy framework for estuaries in the same way as (for example) urban development. This is not so much an issue with the RMA, but rather with the political will to use the RMA in the ways it was intended to be used.

Similarly, while regional councils have always had responsibilities under the RMA (and NZCPS) for habitat protection in the marine area, the extent to which that has manifested in practice has been low and varies around the country. And councils are only now, after the *Motiti* case, coming to terms with what the legislation has always envisaged – that they are expected to be active in controlling the impacts of fishing on the marine environment.¹³²

It is arguable that the current system lacks leadership and a framework of accountability for achieving outcomes.

A lack of strategy and agility

Generally speaking, the existing system can be said to lack both a future focus and agility to respond to environmental change in a timely way. The RMA, for example, talks about enhancement, but lacks a framework for setting targets and a mechanism for holding authorities to account for failing to meet them. National direction is, for the most part, optional and until recently (ie for freshwater) has not been concerned with establishing a pathway towards change. Even where such a pathway is created, amendments to regional coastal plans can take years to achieve and even longer to flow through to outcomes on the ground. Moreover, existing use rights on land (eg for sediment-inducing activities like agriculture, urban development and forestry) can be hard to change legally as well as politically, meaning the best strategies and policies in the world may struggle to be effective in practice. The lack of strategy is even more noticeable under the EEZ Act, where general statements of policy are not mandatory and have, as a result, not been created.¹³³ In short, the RMA and EEZ Act are about managing the status quo, not pushing towards something better.

Generally speaking, the same can be said about fisheries. Although there are notable examples of agility where risks are significant and clear (such as where closures were put in place following the Kaikoura earthquake in 2016), in other situations it is not so obvious. For example, there are ongoing questions about what tools like fisheries plans are actually intended to achieve (if anything) in a strategic sense, and if they are meant to be an industry-led self-management tool or an instrument for government and communities to steer commercial fishing in a different direction.¹³⁴ They are not mandatory and have a chequered history. Furthermore, the boundaries of QMAs are large and difficult to change,¹³⁵ despite the fact that localised depletion in parts of the areas is fairly common, and boundaries do not reflect the biological reality of stocks being managed.¹³⁶ As marine species venture into new areas as the effects of climate change are realised, the arbitrary nature of existing management approaches may be exacerbated. Stock assessments and catch limits rely on uncertain and constrained data and they do not keep up with the actual state of a fishery.¹³⁷ The biological and ecological state of fish stocks and marine ecosystems can change rapidly (especially in a changing climate), but this is not always reflected in the system that manages them.

A lack of strategy and agility is also observable in the marine conservation context. A change in the status of a protected marine species does not automatically trigger a regulatory or policy response (eg the creation of a population management plan or the provision of funding).¹³⁸ Conservation strategies and plans can routinely be out of date, and lack adequate weight when it comes to the consideration of

Raewyn Peart



Fishing trawler, Nelson

concessions.¹³⁹ Similarly, the deployment of MPAs has been left largely to political discretion¹⁴⁰ or tackled through bespoke legislation following collaborative processes or negotiation (eg in Fiordland and Kaikōura), rather than forming a core part of the system itself.¹⁴¹ *Te mana o te taiao – the Aotearoa New Zealand biodiversity strategy 2020* is a non-statutory document and its relationship with operational statutes is neither strong nor clear.¹⁴² All of this is in stark contrast to more modern legislation like the Climate Change Response Act, where there is a much stronger framework for establishing system-wide targets, stepping stones towards them, plans for driving that change, and an institutional framework to ensure transparency and accountability.

There are many other examples of ways in which the current oceans management system lacks strategic direction and the agility to respond to, and force, change. This is true not only where the imperative is environmental protection. For example, aquaculture proponents are struggling with fixed spatial consents that cannot move easily when conditions change (such as seawater warming in the Marlborough Sounds), and offshore aquaculture proponents are encountering a highly uncertain policy and regulatory environment. The lack of policy instruments and spatial planning (eg delineating what can happen where) under the EEZ Act has led to mining companies spending huge amounts seeking to obtain consent for activities in sensitive areas. Clearer policies about what is “off limits” (eg mining in benthic protection areas or parts of the Chatham Rise) might have saved all parties a great deal of time and effort.

There may be an even more fraught situation in the future if the country were to go down the path of deploying offshore wind at scale. There is no real marine policy framework (let alone a nationally consistent one) to support discretionary decisions for offshore wind, other than very general support in an NPS on renewable electricity generation (which largely parrots the provisions in the RMA itself). There is little guidance as to where facilities would be best located (or where they should be avoided), with the most suitable places in terms of wind energy potentially not matching other values and uses of the marine space (eg tourism, recreation, fishing and aquaculture). That uncertainty seems likely to exacerbate the already considerable difficulties that have beset wind farms onshore.

The current system lacks clear goals for what it is trying to achieve for the future and the agility to respond in a timely way to changes in environmental conditions.

Procedural fairness

How elements of the existing system operate is arguably unfair. This is not uniform across the system, and some complaints may be more about some people's or interests' dissatisfaction with where a balance has been struck. However, many complaints are understandable or at least deserve consideration. Some of these relate to the social issues described in Chapter 2, for which the system is directly responsible. For example, the Fisheries Act established the market for quota and separated quota ownership from the harvest of fish, which has resulted in the unequal distribution of value across the fishing sector (with a large share of the profit going to quota holders, who tend not to be those out at sea).¹⁴³ The RMA allows for coastal occupation rights to be allocated using structured tendering processes (to determine which use would be “best”), but more common is the default use of “first in first served” consenting.¹⁴⁴ Charges can be imposed on occupiers but tend not to be (and where they exist are designed inconsistently), while the harvesting of marine life under the Fisheries Act operates on a cost recovery rather than “royalties” basis. It is in the operation of the system – the ways in which its tools are used – that these issues arise. Other equity issues arising from processes under the existing system include the following.

- An ongoing uncertainty about when compensation should be forthcoming for an erosion of “rights” in the marine area (such as a diminution of value of quota due to spatial exclusions or restrictions on fishing methods). At present, such decisions are largely based on negotiation and political factors.
- The lack of strategy and agility within the system, outlined above, can have implications for equity as the environment changes. For example, the movement of fish between QMAs as the climate changes may cause fish stocks – and the value of quota – to decline in some places and increase in others (a windfall capital gain of sorts).
- There are relatively extensive rights for the public to participate in the development of instruments like national direction and regional plans under the RMA, but there are fewer formal opportunities to participate in the development of instruments, or decision-making, under the Fisheries Act (eg through hearings and merit appeals) although pre-engagement and public consultation does often occur as a matter of practice.
- The proactive involvement of iwi and hapū in marine management decisions and processes varies across the country and across

legislation, with much being discretionary (eg the transfer of powers under the RMA). In practice it can also vary due to differences in resourcing, with many Māori groups struggling to sustain involvement across multiple processes and lacking financial support.¹⁴⁵ Māori voices are saying they feel excluded or marginalised from decision-making processes and that the system does not reflect te Tiriti principles.¹⁴⁶

- The broader public can also struggle to participate in marine planning and consenting processes (eg under the RMA) due to a lack of resources or “burnout”. This can be perpetuated where matters need to be litigated in the formal and expensive setting of the courts. This is especially in frameworks like the Fisheries Act where there is recourse only to judicial review in the High Court, and no scope for appeals on the merits or substance of a decision in more accessible fora, such as the Environment Court.¹⁴⁷
- Some may be concerned with the “privatisation” of the marine area (eg for aquaculture, private ownership of coastal land) and its implications for public access.
- The operation of the system is also arguably inequitable from an eco-centric perspective. People have many rights, and these are often used to defend interests in legal and political processes. But despite the advocacy functions of institutions like the Department of Conservation, nature itself is seldom represented in a systemic way. Much is left to the efforts of private individuals and civil society, whose resources can be stretched and whose interests are not necessarily aligned with the “environment”.

In short, there is a degree of dissatisfaction with how the system operates. However, such things are not easy to resolve because there are frequently tensions between different interests, and the idea of “fairness” is often in the eye of the beholder. Perhaps most importantly, the system lacks a *clear* foundation when it comes to social equity and procedural justice, with complaints about equity continuing to arise and be addressed a case-by-case basis. This can be seen in the processes by which individual protected areas are being created, notably in the case of the proposed Rangitāhūa/ Kermadec Ocean Sanctuary (see Chapters 9 and 10 and the spotlight in Chapter 7).¹⁴⁸

There are a number of ways in which the current system is arguably unfair, both in terms of substantive outcomes and the processes by which decisions are made. In particular, there is no overarching framework for how oceans management decision-making is to be conducted in a way that implements the principles of te Tiriti o Waitangi.

Information and funding

The oceans management system is information hungry, and the collection and use of information can be expensive. Some have pointed to problems with how information and funding operate in the current system. This is not unique to oceans. For example, the Parliamentary Commissioner for the Environment has pointed to the lack of a coherent research strategy for environmental issues more broadly (and the absence of forward planning for what our data needs might be)¹⁴⁹ and the existence of significant gaps.¹⁵⁰ Monitoring data and fundamental research is “cobbled” together in an opportunistic way from a range of sources to present in reporting, rather than being collected in a highly purposive and time-series fashion according to what is most useful to tackle pressing problems.¹⁵¹

Information is also not aggregated or stored in a way across institutions that is easily accessed, interrogated or used. Datasets do not speak well to each other,¹⁵² and research is frequently stored in an unstructured way, leading



Private property sign, Ponui Island

to it being underutilised or unnecessarily replicated. Funding for research is not ring-fenced from other competing funding pressures,¹⁵³ and it can be intermittent and insecure.¹⁵⁴ Sometimes institutional knowledge disappears due to staff turnover. And almost across the board, the system does not allow for full input or consideration of mātauranga Māori.¹⁵⁵ Some have pointed to the lack of “data sovereignty” for Māori, and called for greater integration of mātauranga into broader research databases and datasets.¹⁵⁶

A lack of information is particularly important in the marine context, because we cannot easily see beneath the waves to observe what is going on first hand. We are heavily reliant on science (including indigenous knowledge). Environmental reporting is full of references to things we don't know.¹⁵⁷ This ranges from an incomplete understanding of the biology and life cycles of species and the condition of many fish stocks, to the extent of human activities in the marine environment and how these and other pressures impact on complex ecosystems (including cumulatively).¹⁵⁸ In particular, while topographical mapping exists, there is a paucity of data on the nature and extent of habitats in the marine environment.¹⁵⁹ Where data relates to specific industries, such as fishing, aquaculture or mining, there can be access issues due to commercial sensitivity.

Some progress has been made in deploying tools that make marine datasets speak better to each other, such as *SeaSketch* and the *National Aquatic Biodiversity Information System*.¹⁶⁰ Overall, however, it is still reasonable to conclude that:¹⁶¹

we simply do not know enough about the marine ecosystem, and our impacts on it, to manage it sustainably. It can be argued we will never know enough. That is not the central issue. We do know enough now to be aware that we should proceed with caution, like a ship sailing in poorly charted waters. Instead we are charging ahead as though the precision of our ecological knowledge matched the precision with which we can position a trawl net in the ocean or an oil well in the earth's mantle beneath our seas. Sustainable management of the marine environment will, in practical terms, be a process of continual research and improvement.

There are significant questions as to whether we are investing enough in research on the marine environment to understand it better, whether we are targeting the right things, and whether our institutional settings¹⁶² and funding tools¹⁶³ are adequate to improve our knowledge sufficiently. The Parliamentary Commissioner for the Environment has pointed out that is difficult to tell how much actually *is* being invested.¹⁶⁴ The Prime Minister's Chief Science Advisor has also recently pointed to a number

of issues about data and information in decision-making in the context of commercial fishing.¹⁶⁵ A heavy burden can be placed on applicants for consent in the marine space, given the lack of research and information. Combined with a precautionary principle (see Chapter 7), this has resulted in activities like mining being declined consent despite significant investment being made.

The way in which information is generated, funded, stored, shared and used in the current system has a number of issues.

Compliance with international law

While many international legal obligations are expressed in a relatively high-level way (as summarised earlier in Figure 3.5), it is not clear that Aotearoa New Zealand's current system is doing enough to comply with our international obligations (or at least expectations or commitments).

There are general obligations to protect the marine environment under UNCLOS (and it is hard to establish that we are breaching those in any specific sense), and there are more focused requirements and commitments under treaties like the Convention on Biological Diversity.¹⁶⁶ Some have questioned whether Aotearoa New Zealand is meeting those, particularly with respect to slow progress in creating MPAs and linking protective measures to the conservation status of marine species.¹⁶⁷

There are questions to be asked as to whether we are living up to international expectations with respect to oceans management, especially when it comes to marine biodiversity protection.

3.5 Concluding comments

Above, we have identified a number of problems and challenges with respect to the marine environment itself and the existing management system. A future system could reasonably be expected to “fix” these. However, the very concept of a “problem” is subjective. What is problematic for one person may not be for another. Even if there is broad consensus, the reasons behind why something is seen to be a problem (and therefore the legitimacy of different solutions to it) can differ. And solving one problem might create a completely different one, making a quick “fix” out of reach. These considerations are important when it comes to looking at objectives in Chapter 7.



Awaawaroa Bay, Bay of Islands

Endnotes

- 1 Charles N Ehler “Two Decades of progress in Marine Spatial Planning” Marine Policy 132 (2021) 104134 at [3].
- 2 At 38.
- 3 Anne-Marie Jackson, Ngahua Mita and Hauiti Hakopa *Hui-te-ana-nui: Understanding kaitiakitanga in our marine environment* (report prepared for Sustainable Seas National Science Challenge, Te Koronga, University of Otago, July 2017) at 38.
- 4 See Tamatoa Bambridge (ed) *Rāhui: Legal pluralism in Polynesian traditional management of resources and territories* (ANU Press, Australia, 2016).
- 5 Charles N Ehler “Two Decades of progress in Marine Spatial Planning” Marine Policy 132 (2021) 104134 at [3].
- 6 See for example, Foss Leach *Fishing in pre-European New Zealand* (New Zealand Journal of Archaeology, Wellington, 2021) at 311.
- 7 See Benjamin Dimitrios Hanara and Anne-Marie Jackson *Tangaroa Ara Rau: Tangaroa the Atua of Human Movement* (Ngā Pae o te Māramatanga, ngā Ākonga Report 18INT01, 2019).
- 8 *Re Edwards (Te Whakatohea (No 2))* [2021] NZHC 1025.
- 9 *Re Edwards (Te Whakatohea (No2))* [2021] NZHC 1025 at [37]; *Attorney-General v Ngāti Apa* [2003] 3 NZLR 643 (CA). See further *Re Edwards* at [70], [71] and [120]. This approach also aligns with the MACA Act, s 99 which provides for the Court to refer to the Māori Appellate Court or pūkenga for opinion or advice on tikanga. Churchman J also referred to “Kupe’s Law” and “Cook’s Law” and noted that the Courts have started to engage in an analysis of the relationship between the “first and second laws of Aotearoa New Zealand and their impact on the current legal system” at [69].
- 10 *Re Edwards* at [206].
- 11 *Re Edwards* at [227].
- 12 *Re Edwards* at [230]. For the effect of reclamation on customary marine title and protected customary rights claims see [231]–[250]; and regarding third-party structures and use of third-party use and occupation, see [251]–[269].
- 13 *Re Edwards* at [32]. Churchman J here referred to the MACA Act, s 6(1) and Preamble (4).
- 14 Per Churchman J in *Re Edwards* at [33].
- 15 See generally Dame Anne Salmond “Iwi vs Kiwi [Series]” *Newsroom* (online ed, 13 July 2021); Dame Anne Salmond “He Puapua and a Forgotten Promise” *Newsroom* (online ed, 12 July 2021) both <www.newsroom.co.nz>.
- 16 Depending on how one defines a “tool”.
- 17 *Attorney-General v The Trustees of the Motiti Rohe Moana Trust & ors* [2019] NZCA 532.
- 18 Although the latter is little more than a shell through which key parts of the former are deemed to apply beyond the coastal marine area.
- 19 See Treaty of Waitangi (Fisheries Claims) Settlement Act 1992; Maori Fisheries Act 2004; Maori Commercial Aquaculture Claims Settlement Act 2004; Fisheries Act 1996, s 5(b); and Resource Management Act, ss 165E and 165K.
- 20 Waitangi Tribunal *Report of the Waitangi Tribunal on the Muriwhenua Fishing Claim* (Wai 22, 1988) (“the Muriwhenua claim”).
- 21 Waitangi Tribunal *Report of the Waitangi Tribunal on the Muriwhenua Fishing Claim* (Wai 22, 1988) at 1.
- 22 Waitangi Tribunal *Report of the Waitangi Tribunal on the Muriwhenua Fishing Claim* (Wai 22, 1988) at 239 to 240.
- 23 See Māori Fisheries Act 1989, sss 4 and 45.
- 24 Treaty of Waitangi (Fisheries Claims) Settlement Act 1992.
- 25 Treaty of Waitangi (Fisheries Claims) Settlement Act 1992, ss 5 and 7.
- 26 Treaty of Waitangi (Fisheries Claims) Settlement Act 1992, s 14.
- 27 Māori Fisheries Act 2004, ss 31–32.
- 28 Māori Commercial Aquaculture Claims Settlement Act 2004, s 6.
- 29 Associated customary rights are addressed under the MACA Act. See Māori Commercial Aquaculture Claims Settlement Act 2004, s 6A.
- 30 Māori Commercial Aquaculture Claims Settlement Act 2004, s 34.
- 31 Māori Commercial Aquaculture Claims Settlement Act 2004, s 38.
- 32 Māori Commercial Aquaculture Claims Settlement Act 2004, s 45.
- 33 Māori Commercial Aquaculture Claims Settlement Act 2004, s 31.
- 34 These phases are identified and described by Raewyn Peart *Farming the sea: Marine aquaculture within resource management system reform* (EDS, Auckland, 2019) at 10.
- 35 See generally Lucy Brake and Raewyn Peart *Sustainable Seas: Managing the marine environment* (Environmental Defence Society, Auckland, 2015).
- 36 A question is “independent from what?”. We are using this term in the sense of independence from government. Accountability is also used in this sense – being accountable to a broad electorate. This is explored in Chapter 12 (institutional design).
- 37 Such as proposals for new legislation, an oceans vision and so forth.
- 38 See Department of Conservation *Te Mana o Te Taiao - Aotearoa New Zealand Biodiversity Strategy 2020* (August 2020).
- 39 The Department of Conservation website still lists “New Marine Protected Areas Act” from 2016, and identifies a range of benefits the proposed reforms would bring, see <www.doc.govt.nz/get-involved/have-your-say/all-consultations/2016/new-marine-protected-areas-act/>. We discuss marine protected areas in Chapter 9.
- 40 Customary international law is also relevant, but in the environmental space it tends to be relatively high-level compared to treaties.
- 41 On regional fisheries agreements, see Appendix 2.
- 42 The maritime boundaries of Aotearoa New Zealand are confirmed by the Territorial Sea, Contiguous Zone and Exclusive Economic Zone Act 1977 and the Continental Shelf Act 1964 in accordance with UNCLOS.
- 43 UNCLOS, arts 207, 208, 210, 211 and 212.
- 44 UNCLOS, art 62(1).
- 45 UNCLOS, art 62(2).
- 46 Which effectively replaces the parent Convention for states parties.
- 47 Claire Charters *The Rights of Indigenous Peoples Under International Law and Their Domestic Relevance in Aotearoa/New Zealand* (December 2016) paper accessed from SSRN <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2887664>
- 48 Jacinta Ruru “Finding Support for a Changed Property Discourse for Aotearoa New Zealand in the United Nations Declaration on the Rights of Indigenous Peoples” (2011) 15:4 LCLR 951.
- 49 Declaration on the Rights of Indigenous Peoples GA Res 61/295, A/Res/61/295 (2007), art 2.
- 50 Declaration on the Rights of Indigenous Peoples GA Res 61/295, A/Res/61/295 (2007), art 3.
- 51 Claire Charters “Te Tiriti o Waitangi, the UN Declaration on the Rights of Indigenous Peoples and Constitutional Change: What is the Role of Judges and Adjudication?” (International Association of Women Judges Annual Hui, 7 May 2021) [text available from <www.SSRN.com>].
- 52 Declaration on the Rights of Indigenous Peoples GA Res 61/295, A/Res/61/295 (2007), art 4.
- 53 Claire Charters *The Rights of Indigenous Peoples Under International Law and Their Domestic Relevance in Aotearoa/New Zealand* (December 2016) paper accessed from SSRN <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2887664>
- 54 Jacinta Ruru “Finding Support for a Changed Property Discourse for Aotearoa New Zealand in the United Nations Declaration on the Rights of Indigenous Peoples” (2011) 15:4 LCLR 951.
- 55 Claire Charters “Te Tiriti o Waitangi, the UN Declaration on the Rights of Indigenous Peoples and Constitutional Change: What is the Role of Judges and Adjudication?” (International Association of Women Judges Annual Hui, 7 May 2021) [text available from <www.SSRN.com>].
- 56 Declaration on the Rights of Indigenous Peoples GA Res 61/295, A/Res/61/295 (2007), art 29.
- 57 Declaration on the Rights of Indigenous Peoples GA Res 61/295, A/Res/61/295 (2007), art 25.
- 58 Jacinta Ruru “Finding Support for a Changed Property Discourse for Aotearoa New Zealand in the United Nations Declaration on the Rights of Indigenous Peoples” (2011) 15:4 LCLR 951 at 956–958.
- 59 Jacinta Ruru “Finding Support for a Changed Property Discourse for Aotearoa New Zealand in the United Nations Declaration on the Rights of Indigenous Peoples” (2011) 15:4 LCLR 951 at 958.
- 60 Jacinta Ruru “Finding Support for a Changed Property Discourse for Aotearoa New Zealand in the United Nations Declaration on the Rights of Indigenous Peoples” (2011) 15:4 LCLR 951 at 958.
- 61 Jacinta Ruru “Finding Support for a Changed Property Discourse for Aotearoa New Zealand in the United Nations Declaration on the Rights of Indigenous Peoples” (2011) 15:4 LCLR 951.
- 62 See United Nations “Intergovernmental conference on marine biodiversity of areas beyond national jurisdiction” <www.un.org/bbnj/>; and Helen Briggs “Plastic pollution: Green light for ‘historic treaty’” *BBC* (online ed, 2 March 2022) <www.bbc.com/news/science-environment-60590515>
- 63 Whether they *are* problems, and the *extent* to which they are problematic, may depend on worldviews.

- 64 Again, with the caveat that not all will agree on what the rationale for the system is (see Chapter 6).
- 65 We might expect more afforestation on land than sequestration in the sea, meaning the role of the oceans management system is far from obvious.
- 66 Greg Severinsen *Reform of the Resource Management System: A model for the future Synthesis report* (Environmental Defence Society, Auckland, December 2019) at 70.
- 67 Department of Conservation *New Zealand's latest National Report under the Convention on Biological Diversity: Reporting period 2014-2018* (Department of Conservation, Wellington, 2019) at 79.
- 68 At 78.
- 69 Department of Conservation *Biodiversity in Aotearoa: an overview of state, trends and pressures 2020* (Department of Conservation, Wellington, August 2020) at 98-99.
- 70 See Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation Synthesis Report and Next Steps* (Environmental Defence Society, Auckland, February 2019).
- 71 See generally Jane Kelsey *The New Zealand Experiment: A World Model for Structural Adjustment?* (Bridget Williams Books, Wellington, 1997).
- 72 On such issues more generally, see Quentin R Grafton "Responding to the 'Wicked Problem' of Water Insecurity" (2017) 31(10) *Water Resour Manag* 3023.
- 73 See Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018) at xi and xii.
- 74 *Environmental Defence Society Inc v The New Zealand King Salmon Co Ltd* [2014] NZSC 38, [2014] 1 NZLR 593.
- 75 *Environmental Defence Society Inc v The New Zealand King Salmon Co Ltd* [2014] NZSC 38, [2014] 1 NZLR 593 at [137]
- 76 Although it allows "stringency" where more stringent controls can be imposed by councils to achieve the objectives of the NZCPS.
- 77 See Keep Okura Green Incorporated *Hauraki Gulf and the Long Bay Okura Marine Reserve. Case Study: Weiti Development* (July 2017). The Department of Conservation is currently undergoing research on the area: Department of Conservation "Long Bay-Okura Marine Reserve sentinel site research" <www.doc.govt.nz/nature/habitats/marine/type-1-marine-protected-areas-marine-reserves/marine-sentinel-site-programme/sentinel-site--long-bay-okura-marine-reserve/>.
- 78 See Suzannah Dodd and Kay Vopel *Proposal for monitoring sedimentation in the Te Whanganui-a-Hei Marine Reserve* (Auckland University of Technology, Auckland, July 2010) at 2 and A Schwarz, R Taylor, J Hewitt, N Phillips, J Shima, R Cole and R Budd *Impacts of terrestrial runoff on the biodiversity of rocky reefs* (Fisheries New Zealand, New Zealand Aquatic Environment and Biodiversity Report 7, 2006).
- 79 See V A Froude and R Smith *Area-based restrictions in the New Zealand marine environment* report prepared by Pacific Eco-Logic Ltd for the Department of Conservation, Wellington, 2004).
- 80 Some seamounts, for example, have been closed.
- 81 As much as 82 percent of the benthic protection areas is too deep to be trawled with current technology: see J Leathwick, K Julian and M Francis *Exploration of the use of reserve planning software to identify potential Marine Protected Areas in New Zealand's Exclusive Economic Zone* (NIWA, June 2006) at 29 and A Reiser, L Watling and J Guinotte "Trawl fisheries, catch shares and the protection of benthic marine ecosystems: Has ownership generated incentives for seafloor stewardship?" (2013) 40 *Marine Policy* 75. Seamounts have been identified by the United Nations as specific habitats that need protection; however, only half of all seamounts are protected: Ministry for Primary Industries "Benthic protection areas" (16 November 2020) <www.mpi.govt.nz>.
- 82 But see proposed measures to change settings: Minister for Ocean and Fisheries "Fisheries Amendment Bill: Strengthening fishing rules and policies: landings and discards" (2 July 2021).
- 83 Anecdotal evidence suggests that more people are engaging in recreational fishing since Covid-19. There is an argument that recreational fishing is essentially self-moderating, as people do less of it if it becomes harder to catch fish (ie when stocks decline), but that is by no means clear.
- 84 Fisheries Act 1996, s 13(2).
- 85 Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018) at vii.
- 86 At 53. See also *Royal Forest and Bird Protection Society v Minister of Fisheries* [2021] NZHC 1427.
- 87 Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018) at 48-50.
- 88 Dependent species must be considered in setting a TAC for a stock, but this process does not often take into account the complexity of marine ecosystems and trophic cascades.
- 89 See Wildlife Act 1953, s 7BA and sch 7A.
- 90 Wildlife Act 1953, s 68B.
- 91 Through providing a defence from prosecution if dolphins are killed "accidentally or incidentally" in the course of fishing and the event is reported and logged. See ss 26(4) and 16 of the Marine Mammals Protection Act 1978. Although it is an offence to fail to report incidental mortality under the Act, there is no penalty associated with the fishing-related mortality or injury itself.
- 92 *OpenSeas NZ Associated Species - Marine Mammals: Section Detail Report* (29 May 2019), at 4.
- 93 Fisheries Act 1996, ss 8 and 9.
- 94 Resource Management Act 1991, pt 2.
- 95 EEZ Act, s 10.
- 96 Resource Management Review Panel *New Directions for Resource Management in New Zealand* (June 2020) at 52.
- 97 At 52.
- 98 See New Zealand Coastal Policy Statement 2010.
- 99 *Environmental Defence Society Inc v The New Zealand King Salmon Co Ltd* [2014] NZSC 38, [2014] 1 NZLR 593 at [130].
- 100 See generally Kate Mulcahy, Raewyn Peart and Abbie Bull *Safeguarding Our Oceans* (Environmental Defence Society, Auckland, 2012) at Chapter 8.
- 101 *Environmental Defence Society Inc v Otago Regional Council* [2019] NZHC 2278 [Port Otago]. Now subject to appeal in the Supreme Court.
- 102 See Environmental Defence Society "Submission on the Natural and Built Environments Bill (Exposure Draft) 2021", <www.eds.org.nz/our-work/media/media-statements/media-statements-2021/changes-needed-to-strengthen-the-exposure/>.
- 103 See Marine Reserves Act 1971, s 5(6).
- 104 Resource Management Act 1991, s8.
- 105 EEZ Act, s 12. In practice, the Act has been read in a much wider light, despite this narrow Treaty clause. See *Trans-Tasman Resources Ltd v Taranaki-Whanganui Conservation Board* [2020] NZCA 86 at [133]-[180].
- 106 See Deidre Koolen-Bourke and Raewyn Peart *Conserving Nature: Conservation System Reform Issues Paper* (Environmental Defence Society, Auckland, 2021); *Ngāi Tai ki Tāmaki Tribal Trust v Minister of Conservation* [2018] NZSC 122; and Waitangi Tribunal *Ko Aotearoa Tenei: A Report into Claims Concerning New Zealand Law and Policy Affecting Māori Culture and Identity* (Wai 262, 2011).
- 107 *Ngāi Tai ki Tāmaki Tribal Trust v Minister of Conservation* [2018] NZSC 122.
- 108 Waitangi Tribunal *Ko Aotearoa Tenei: A Report into Claims Concerning New Zealand Law and Policy Affecting Māori Culture and Identity* (Wai 262, 2011); *Ngāi Tai ki Tāmaki Tribal Trust v Minister of Conservation* [2018] NZSC 122; and Ministry for the Environment *Natural and Built Environments Bill Exposure Draft* (June 2021).
- 109 See Ministry for the Environment *Natural and Built Environments Bill Exposure Draft* (June 2021), proposed s 6.
- 110 Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012, s 12. See Robert Joseph and others *Stemming the Colonial Tide: Shared Maori Governance Jurisdiction and Ecosystem-Based Management over the Marine and Coastal Seascapes in Aotearoa New Zealand - Possible Ways Forward* (Ko Ngā Moana Whakauka and Te Mata Hautū Taketake – the Māori and Indigenous Governance Centre, Waikato, 2020) at 254-266.
- 111 See Robert Joseph and others *The Treaty, Tikanga Māori, Ecosystem-based Management, Mainstream Law and Power Sharing for Environmental Integrity in Aotearoa New Zealand - Possible Ways Forward* (Ko Ngā Moana Whakauka and Te Mata Hautū Taketake – the Māori and Indigenous Governance Centre, Waikato, 2019) at 3.
- 112 At 108.
- 113 See *Re Edwards (Te Whakatohea (No2))* [2021] NZHC 1025 on determining existence of customary marine title under the MACA Act.
- 114 Jo Moir "Govt no closer to landing Kermadec Sanctuary" *Newsroom* (online ed, 15 March 2021).
- 115 Waitangi Tribunal *The Marine and Coastal Area (Takutai Moana) Act 2011 Inquiry Stage 1 Report* (Wai 2660, 2020).
- 116 See Maxine Jacobs "Legal interpretations of wāhi tapu and rāhui sought in landmark rights hearing" *Stuff* (online ed, 17 February 2022) <<https://www.stuff.co.nz/pou-tiaki/300519200/legal-interpretations-of-whi-tapu-and-rhui-sought-in-landmark-rights-hearing>>
- 117 Marine Reserves Act 1971, long title.

- 118 Deidre Koolen-Bourke and Raewyn Peart *Conserving Nature: Conservation System Reform Issues Paper* (Environmental Defence Society, Auckland, 2021).
- 119 Parliamentary Commissioner for the Environment *Setting course for a sustainable future: The management of New Zealand's marine environment* (Office of the Parliamentary Commissioner for the Environment, Wellington, November 1999).
- 120 Parliamentary Commissioner for the Environment *Setting course for a sustainable future* (1999), preface.
- 121 That said, there have been other drivers for place-based legislation, such as the desire to implement packages of tools together (not just protected areas) and to be more focused in terms of implementation.
- 122 See for example Seachange Stakeholder Working Group *Sea Change Tai Timu Tai Pari Hauraki Gulf Marine Spatial Plan* (Hauraki Gulf Forum in partnership with others, April 2017), chapter 6; Minister for Oceans and Fisheries *Revitalising the Hauraki Gulf – Government Sea Change Strategy* (2 July 2021).
- 123 (Ngā Aho Incorporated Society, Auckland, October 2016). Compare TM Lenihan and J Bartley *Review of Māori planning futures: Review of the Productivity Commission's "Better urban planning" draft report* (Ngā Aho Incorporated Society, Auckland, October 2016) at 36.
- 124 Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018).
- 125 MWD *White Australian Marine Pollution Laws* (2nd ed, The Federation Press, Annandale (NSW), 2007) at 186.
- 126 Bevan Marten *Maritime Law in New Zealand* (Thomson Reuters, 2016) at 66.
- 127 See *Laws of New Zealand* Maritime Law: Shipping and Navigation (online ed) at [2.11].
- 128 Under the Maritime Transport Act 1994 the Director of Maritime New Zealand and the Minister of Transport have broad powers to make delegated legislation by way of maritime rules to regulate maritime activity, and marine protection rules to implement international conventions and standards relating to the marine environment.
- 129 Bevan Marten *Maritime Law in New Zealand* (Thomson Reuters, 2016) at 66.
- 130 See for example *Attorney-General v The Trustees of the Motiti Rohe Moana Trust* [2019] NZCA 532.
- 131 The NES for Marine Aquaculture can hardly be said to have been designed to implement the policies of the NZCPS in the round – it is a much more targeted consenting tool.
- 132 *Attorney-General v The Trustees of the Motiti Rohe Moana Trust* [2019] NZCA 532.
- 133 See Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012, s 37A.
- 134 Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018) at 128.
- 135 At 14. See also Fisheries Act 1996, ss 25A and 25B.
- 136 At 14-15.
- 137 At vii, 38 and following.
- 138 Kate Mulcahy and Raewyn Peart *Wonders of the Sea: The protection on New Zealand's marine mammals* (Environmental Defence Society, Auckland, 2012) at 80.
- 139 Deidre Koolen-Bourke and Raewyn Peart *Conserving Nature: Conservation System Reform Issues Paper* (Environmental Defence Society, Auckland, 2021) at 72.
- 140 Kate Mulcahy, Raewyn Peart and Abbie Bull *Safeguarding Our Oceans* (Environmental Defence Society, Auckland, 2012) at 101.
- 141 See for example Seachange "Sea Change" <www.seachange.org.nz>.
- 142 See Department of Conservation *Te Mana o Te Taiao - Aotearoa New Zealand Biodiversity Strategy 2020* (Department of Conservation, Wellington, August 2020).
- 143 Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018), ch 5.
- 144 Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation – Synthesis Report* (Environmental Defence Society, Auckland, February 2019) at 114.
- 145 See for example, Waitangi Tribunal *The Final Report on the M V Rena and Motiti Island Claims* (Wai 2391 and 2393, 2015) at 39-43 and 57-58; Resource Management *Review Panel New Directions for Resource Management in New Zealand* (June 2020), ch 3.
- 146 See Robert Joseph and others *The Treaty, Tikanga Māori, Ecosystem-Based Management, Mainstream Law and Power Sharing for Environmental Integrity in Aotearoa New Zealand – Possible Ways Forward* (Ko Ngā Moana Whakauka and Te Mata Hautū Takekete – the Māori and Indigenous Governance Centre, Waikato, 2019).
- 147 Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018) at 121.
- 148 Although protected areas have been/are being progressed on a considered basis in places like the Subantarctic Islands, the West Coast of the South Island, South-East Otago and the Hauraki Gulf, these processes are not framed by an overarching legislative framework or common/predictable process.
- 149 Parliamentary Commissioner for the Environment *A review of the funding and prioritisation of environmental research in New Zealand* (December 2020) at 35, 45 and following.
- 150 At 3.
- 151 At 72.
- 152 At 37.
- 153 At 57.
- 154 At 52.
- 155 Parliamentary Commissioner for the Environment *A review of the funding and prioritisation of environmental research in New Zealand* (December 2020) at 49.
- 156 At 41; see also Waitangi Tribunal *Ko Aotearoa Tenei: A Report into Claims Concerning New Zealand Law and Policy Affecting Māori Culture and Identity* (Wai 262, 2011) at 561 and following.
- 157 Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019) at 3. See also Fisheries New Zealand *Aquatic Environment and Biodiversity Annual Review 2019-20: A summary of environmental interactions between the seafood sector and the aquatic environment* (Fisheries Science Team, Ministry for Primary Industries, Wellington, June 2020).
- 158 See for example Office of the Prime Minister's Chief Science Advisor *The Future of Commercial Fishing in Aotearoa New Zealand* (February 2021) at 108 and following.
- 159 Parliamentary Commissioner for the Environment *A review of the funding and prioritisation of environmental research in New Zealand* (December 2020) at 76.
- 160 Department of Conservation "New Zealand mangroves and seagrass database" (November 2018); Seasketch <<https://www.seasketch.org/#projecthomepage/5357cfa467a68a303e1bb87a>>; and Ministry for Primary Industries "National Aquatic Biodiversity Information System" <<https://maps.mpi.govt.nz/templates/MPIViewer/?appid=96f54e1918554ebbf17f965f0d961e1>>.
- 161 Parliamentary Commissioner for the Environment *Setting course for a sustainable future: The management of New Zealand's marine environment* (Office of the Parliamentary Commissioner for the Environment, Wellington, November 1999)
- 162 For example, is our system of Crown Research Institutes and the way central government is configured to fund and directly deliver research adequate?
- 163 For example, are funding tools available to regional councils sufficient for them to discharge their responsibilities in managing marine habitats and biodiversity?
- 164 Parliamentary Commissioner for the Environment *A review of the funding and prioritisation of environmental research in New Zealand* (December 2020) at 3.
- 165 See Office of the Prime Minister's Chief Science Advisor *The Future of Commercial Fishing in Aotearoa New Zealand* (February 2021).
- 166 The Convention on Biological Diversity 1760 UNTS 69 (opened for signature 5 June 1992, entered into force 29 December 1993).
- 167 See for example Eugenie Sage "International report card on New Zealand's indigenous nature - we must do better" (media release, 4 April 2019) <<https://www.beehive.govt.nz/release/international-report-card-new-zealand%E2%80%99s-indigenous-nature-%E2%80%93-we-must-do-better>>

4 The context of reform



Wellington harbour

4.1 Introduction

The description of the oceans management system in Chapter 3, and problems with it, shows a snapshot in time. The reality is that the system, like the sea itself, is dynamic and constantly evolving. It has an interesting history that informs both the present and the possibilities for future change. We also have a reform minded government that is taking a number of measures relevant to the marine space, and is contemplating deeper reform. In this chapter, we outline key aspects of the context that will influence systemic change to our oceans management system in the future.

4.2 Planned marine reforms

Some features of the current system are the product of recent change, and are described in Appendix 1. The implications of some of these are still playing out (including important case law under the EEZ Act about the interpretation of its principles,¹ under the RMA concerning the place of environmental bottom lines,² and under the Conservation Act relating to te Tiriti o Waitangi obligations).³ However, there are other features (including a number of legislative reforms or policy reviews) that are emerging at the time of writing or are planned for the future (see spotlight). They provide important context for future, deeper, oceans reforms. They also provide potential opportunities. In a few years' time, the "existing" system may look quite different.



Raewyn Peart

Flesh-footed shearwater, Hauraki Gulf

A spotlight on emerging or planned reforms

There is a wide range of prospective reforms which could have implications for the future of an oceans management system. They include:

- Ongoing work on national direction under the RMA, including common wastewater standards, proposed NPS for Indigenous Biodiversity, and rollout of freshwater policy under the NPS for Freshwater Management.
- The development of emissions reduction plans under the Climate Change Response Act, which may have implications for marine activities, as well as for broader activities impacting on the marine environment.
- A review of the Biosecurity Act (including marine biosecurity).
- Ongoing reform of "three waters" – drinking water, stormwater and wastewater – where it is envisaged there will be a small number of publicly owned water service providers and a much smaller role for councils. This has implications for the funding, planning and provision of infrastructure that can cause or prevent harmful discharges to the marine environment.
- A review into the structure of local government, which has implications for the role of regional councils in marine management as well as territorial authorities in managing infrastructure and land use that can affect the ocean.
- Measures to tackle freshwater and sediment from land use practices being advanced by the Essential Freshwater package and the Productive and Sustainable Land Use package.⁴
- A review of waste legislation – the Waste Minimisation Act and the Litter Act, which will have implications for what kinds of waste end up in the marine environment, and the deployment of tools under the former to phase out various single use plastics.
- Continued efforts by regional councils to grapple with the implications of the *Motiti* decision⁵ (how they discharge their responsibilities in managing habitats impacted by fishing activities under the RMA).

- Ongoing actions set out in *Responsibly delivering value - a minerals and petroleum resource strategy for Aotearoa New Zealand: 2019 – 2029*.⁶
- Changes to the Environmental Reporting Act to strengthen the environmental reporting system.
- Ongoing work by the Minister/Ministry of Transport to decarbonise the shipping sector.
- Investigations into legal frameworks for offshore wind energy.
- Ongoing development of case law, including in relation to how environmental limits under *King Salmon* are applied to marine infrastructure such as ports,⁷ relevant factors in determining how fish stocks recover under the Fisheries Act,⁸ and how the EEZ Act and its precautionary principle applies to deep sea mining activities.⁹
- International law developments, including “work with Pacific Islands Forum partners relating to sea level rise and a 2050 Blue Pacific Strategy, global engagement on marine plastic litter, negotiating a new High Seas Biodiversity Treaty, and a Post-2020 Global Biodiversity Framework”.¹⁰

Many iwi throughout the country have lodged applications with the Crown and in the High Court for recognition of customary title and protected customary rights under the MACA Act, and the extent of these applications is such that they cover the majority of the Aotearoa New Zealand coastline.¹¹ Few claims have been processed by Te Arawhiti (formerly the Office of Treaty Settlements) which on behalf of the government received over 380 applications by the statutory cut-off date.¹² While this involves a site by site assessment, cumulatively the ongoing process has potential to alter the way in which many parts of the foreshore and seabed are managed. Significant precedents on the the MACA Act and the nature of customary marine title are being determined through litigation in the High Court.¹³

Cutting across all these things are ongoing te Tiriti negotiations creating bespoke arrangements, not just for redress of grievances, but also for place-specific co-governance and other arrangements. These negotiations are, slowly, causing the system to evolve in an iterative way. And although it is not a reform measure itself, the release of *He puapua* (which means “a break” and usually refers to a break in the waves), which envisages how

Aotearoa New Zealand might implement the UNDRIP, has contributed to the deeper conversation about how the Māori-Crown relationship – and society – will work in the future, including at a constitutional level.¹⁴ This goes back to broad and evolving discussions about the nature of te Tiriti o Waitangi itself and what this means in the 21st century (see the discussion further below).

Careful consideration will be needed as to how the many different reform streams intersect (including over time), particularly in light of the capacity of the public service to support multiple reforms and investment priorities concurrently.

Two key packages of measures are particularly notable due to their breadth, depth and imminence. The first relates to resource management system reform, in which EDS has been intimately involved in recent years. The government’s independent resource management panel, chaired by Hon Tony Randerson QC, released a report in 2020 outlining a series of recommendations for sweeping reform.

The scope of the panel’s report, and the government’s programme of “resource management” reforms, is not as wide as the “system” we have defined in this report (in that the former is firmly focused on the replacement of the RMA, its connections with existing legislation, and the introduction of new legislation for spatial planning and climate change adaptation). This means that the oceans management system – at least as we have defined it – is not a “subset” of the government’s narrower conception of the resource management system, because oceans management has many components that lie beyond it (notably fisheries and conservation legislation). However, there is still considerable overlap, in that the RMA is intimately concerned with marine management in the coastal marine area (which roughly aligns with the territorial sea as defined under UNCLOS).



Nesting gannets, Mokohinau Islands

Raewyn Peart

The upshot is that a significant part of how our oceans are managed is set to be changed, and further reforms in this area need to be cognisant of that. The current resource management reform process represents both an opportunity to progress oceans reform (and to tailor current reform proposals to that context where needed) and a potential constraint (in that high level policy decisions, for example around legislative design, have already been taken and are unlikely to be revisited at a fundamental level).

A spotlight on the Randerson Panel's key recommendations on resource management reform¹⁵

The Randerson Panel produced an extensive report on resource management reform. Some of the key recommendations of significance for oceans reform are highlighted below.

- Repeal the RMA and replace it with a new NBA, with a revised purpose and principles. This signals a wider shift in the Act from managing environmental effects to achieving positive outcomes.
- Create a new Strategic Planning Act, requiring the preparation of regional spatial strategies encompassing both land and the coastal marine area. These strategies would align functions across other statutes, including the NBA, the Local Government Act, the Land Transport Management Act and the Climate Change Response Act.
- Enact a dedicated Managed Retreat and Climate Change Adaptation Act, which will provide for managed retreat and the establishment of a climate change adaptation fund.
- Require decision-makers to give effect to the principles of te Tiriti o Waitangi, and incorporate the overarching concept of te oranga o te taiao in the purpose statement of the NBA.
- Establish a National Māori Advisory Board to monitor the performance of central and local government in giving effect to te Tiriti and provide for an integrated partnership process between mana whenua and councils.
- Require national direction to be made on a range of core matters, and combine this into a coherent suite of instruments that clearly resolve conflicts and relationships between them.

- Require the establishment of environmental limits and targets.
- Reformulate existing RMA plans into combined regional plans, reducing the 100 or so plans we have now to just 14.
- Reform the planning process, including the establishment of joint planning committees comprising regional council, territorial authority and mana whenua representatives.
- Require an audit of plans by the Ministry for the Environment before they are notified.
- Alter how the notification framework operates, including removing the “no more than minor” threshold for notification of consents.
- Remove non-complying activity status.
- Provide an alternative dispute resolution pathway for minor matters.
- Strengthen the overall role of the Environment Court.
- Strengthen the framework for water conservation orders.
- Provide more flexibility to review existing resource consents to create a more responsive system.
- Provide for greater use of economic instruments to drive behaviour change.
- Establish a nationally coordinated environmental monitoring system led by the Ministry for the Environment.
- Expand the role of the Parliamentary Commissioner for the Environment to provide a stronger auditing and oversight role of the resource management system.
- Establish regional hubs for compliance, monitoring and enforcement.
- Strengthen offences and penalties for non-compliance.

The above is a selective summary. The recommendations of the Randerson Panel are wide ranging and complex, and they arise at a number of points in

this report. There are two overarching points to note for the marine context, though. First, most that is changing about the RMA will affect management in the coastal marine area. This ranges from the mandatory establishment of limits for the area, to a more comprehensive and integrated approach to national direction (and its implications for the NZCPS), to how plans are made, consents dealt with and enforcement undertaken.

Secondly, it remains uncertain as to how proposed new legislation for regional spatial planning, the Strategic Planning Act, will (or should) apply to the marine context, despite the fact that it is intended to extend out to the seaward edges of the coastal marine area. We look at this in the context of legislative design in Chapter 11. There are also questions about how a new statute on climate change adaptation will apply offshore – whether it will be primarily about issues on land like managed retreat (including the impact of things like hard seawalls on marine life), or whether it will also seek to manage climate induced changes *in* the marine area (eg how sectors like aquaculture can adapt).

The process of implementing reform is now well underway. In particular, the government has recently released an “exposure draft” of some of the key provisions (including a purpose and principles part) of a new NBA, which has been considered through a novel select committee process.¹⁶ For the most part it confirms the spirit of the Randerson Panel’s proposals.¹⁷ We understand key policy decisions will be taken during 2022.

We emphasise, however, that resource management reform does not obviate the need for wider ranging oceans reform. For instance, there are the spatial limitations to the current process – it does not include anything beyond the territorial sea. There are also important sectoral exclusions (especially fishing and marine conservation). And its normative foundations are focused on land rather than on the sea. Indeed, the spirit of reform is very much about improving the RMA and its relationships with infrastructure provision and climate change legislation, not grappling with the much wider issue of fragmented management of *te moana*.

The other key element of context worth noting is the government’s interest in pursuing holistic oceans reform directly. This was signalled by the establishment of a new ministerial portfolio for oceans and fisheries (previously just fisheries). While the extent of appetite for reform remains unclear, there have been strong indications in a series of recent Cabinet papers that significant fisheries-focused reform is planned.¹⁸ That goes as far as saying that “significant reform of the fisheries system is required”,¹⁹ including commercial fishing (which was the subject of a report by the Prime Minister’s Chief Science Advisor earlier in 2021).²⁰

Among the reforms signalled are targeted measures like the rollout of cameras on boats,²¹ potential changes to the QMS (although retention of the basic tool), revisiting the National Plan of Action on Sharks, significant changes to rules around discarding and landing fish,²² a more graduated and nuanced system of penalties for non-compliance, the ability to establish pre-set changes to catch limits and other sustainability measures in advance, more responsive tools to set recreational fishing (eg bag) limits, and an industry transformation plan (with possible support for innovation, including transitioning away from harmful fishing methods like bottom trawling).²³

Proposals also include targeted initiatives, such as implementing some of the recommendations of the Sea Change Tai Timu Tai Pari marine spatial plan developed for the Hauraki Gulf. That includes using available tools to do things like reducing the trawling footprint²⁴ and creating a spatially based fishing plan (the first of its kind);²⁵ a trial and eventual framework for novel locally-controlled Ahu Moana areas; and likely bespoke legislation to establish novel high protection areas that allow some customary activities.²⁶ The further development of legislation for Rangitāhua/the Kermadec Islands is also signalled, as is support for new marine development opportunities (eg offshore aquaculture). The South-East Marine Protection initiative is also continuing (to implement a network of MPAs in the south-eastern South Island coastal marine area). And despite a chequered history, there is still a commitment to progress new MPA legislation (although that may come after more targeted protections through Sea Change and for Rangitāhua/Kermadec Islands).



Cape Rodney-Okakari Point marine reserve

Craig Potton

Overall, this package is significant. However, equally significant is the signal that this will take place within a broad “vision” for the oceans founded in ecosystem-based management, described as “ensuring the long-term health and resilience of ocean and coastal ecosystems, including the role of fisheries”. Cabinet papers refer to a suite of objectives and principles that are intended to support this vision, and the establishment of an Oceans and Marine Ministers Group²⁷ as well as an inter-agency Oceans Secretariat²⁸ to progress an integrated work programme. Although what it will comprise and how far it will go is still up in the air, longer-term and deeper reform measures are also mentioned as a possibility,²⁹ with EDS’s project specifically mentioned as an input. There is to be “an assessment of how far the initial work programme will go in realising the vision and objectives, and what future longer-term work may be necessary”.³⁰ It is heartening to see that the horizons

for fundamental reform are broadening – including the possibility of institutional change and legislative rearrangement.

The articulation of a “vision” for Aotearoa New Zealand’s oceans does not really form part of the formal “system”, and instead should be regarded as a manifesto and mandate for change. But combined with an integrated oceans portfolio, and the coordinated way in which surgical measures are being progressed, it indicates that the winds of change are blowing across our seas.

The concept of developing a common vision and set of principles and objectives for our oceans is not new. Twenty years ago there were similar efforts to progress a conversation about marine reform, but these founded on the rocky reefs of the controversial foreshore and seabed debate (see further below). Those events provide valuable historical context for efforts to undertake reform today.

Biodiversity is also on the agenda. The proposed NPS for Indigenous Biodiversity (which although largely excluding biodiversity in freshwater and the coastal marine area still has some relevance to the marine space)³¹ remains on the table, although it appears to have stalled somewhat. Yet a non-statutory biodiversity implementation plan, and biodiversity targets to (among other things) develop a network of representative MPAs, is expected in 2022.³² *Te mana o te taiao – the Aotearoa New Zealand biodiversity strategy 2020* states that implementation plans will include further goals, actions to progress towards goals, responsibility for the delivery of goals, and indicators to measure progress.³³

Reforms to the oceans management system will take place against a constantly shifting background of policy, legal and institutional change. The current government has an active reform agenda, and this presents opportunities and potentially constraints for future reform. Most significant will be the implementation of the Randerson Panel’s recommendations on resource management reform and targeted changes to fisheries law.

4.3 An evolving constitutional conversation

Although it extends well beyond the marine context, te Tiriti o Waitangi forms a critical part of the backdrop for both resource management and oceans reform. The legal place of te Tiriti itself, the principles of te Tiriti, and statutory references to them, have evolved over time.³⁴

Craig Potton



Rocky coast, Northland

However, it is worth considering the origins of the document and for this to be held in the minds of policy makers. This is in the context of growing calls for the relationship between Māori and the Crown to be reimagined or reinvigorated beyond just the settlement of historical grievances and generic references to paternalistic principles about active protection and partnership. A focus is being placed, not just on te Tiriti, but also on He Whakaputanga – the Declaration of Independence of the United Tribes of New Zealand (1835) and UNDRIP (see Chapter 3). It has been suggested that the “full and final” settlement of some matters could be revisited, which may have implications for fisheries and aquaculture.³⁵

In short, the Crown-Māori relationship is no longer just about righting the wrongs of the past and moving on. It is about the nature of sovereignty and constitutional arrangements in post-colonial Aotearoa New Zealand.³⁶ The settlement process has taken on quite a different character from 20 years ago. *He Puapua* and the report of Matike Mai Aotearoa – The Independent Working Group on Constitutional Transformation have contributed to a deeper conversation about how the Māori-Crown relationship – and society – will work in the future, including at a constitutional level.³⁷

Core to all this is whether sovereignty was ceded to the Crown, and the nature of rights to manage resources. Parliamentary sovereignty is a practical legal reality in Aotearoa New Zealand. However, the Waitangi Tribunal when hearing the Wai 1040 Treaty Claim has said (among other things) that:

- The rangatira who signed te Tiriti o Waitangi in February 1840 did not cede their sovereignty to Britain. That is, they did not cede authority to make and enforce law over their people or their territories.
- The rangatira agreed to share power and authority with Britain. They agreed that the Governor would have authority to control British subjects in Aotearoa New Zealand, and thereby keep the peace and protect Māori interests.
- The rangatira consented to te Tiriti on the basis that they and the Governor were to be equals, though they were to have different roles and different spheres of influence.
- The rangatira agreed to enter into land transactions with the Crown, and the Crown promised to investigate pre-Treaty land transactions and to return any land that had not been properly acquired from Māori.

- Though Britain went into the Treaty negotiation intending to acquire sovereignty, and therefore the power to make and enforce law over both Māori and Pākehā (non-Māori), it did not explain this to the rangatira. Rather, the explanations of the texts and the verbal assurances given by Hobson and his agents, said that Britain sought the power to control British subjects and thereby to protect Māori.

There has been considerable dispute due to varying interpretations of the te reo (Māori language) and English language versions of te Tiriti. Many are of the view that there was not a proper meeting of the minds. Significant questions will be grappled with over the coming years in the political sphere, and any oceans reforms will need to provide space for that to be worked out, without implementing changes that will require further overhaul. In short, reforms will need to respect te Tiriti as a living document, give effect to its principles, and defend existing settlements from erosion. As Dame Anne Salmond has pointed out in a series of articles,³⁸ the evolving context of reform might be one in which there is a strong sense of partnership, reciprocity and above all a weaving of different outlooks in a non-binary way. It is about our identity as a nation.



Waharoa (customary gateway), Rangitoto Island

A spotlight on recent recommendations for constitutional transformation

The government's endorsement of UNDRIP in 2010 encouraged deeper conversations about how the rights of Māori could (and should) be realised within Aotearoa New Zealand's constitutional framework. In 2010, the National Iwi Chairs forum founded Matike Mai Aotearoa, an independent working group tasked with setting out what an inclusive constitution might look like for Aotearoa New Zealand.³⁹ The specific terms of reference for Matike Mai were to develop and implement a model of governance based on tikanga and kawa (Māori philosophy and law), existing agreements between Māori and the Crown (He Whakaputanga and te Tiriti),⁴⁰ and indigenous human rights instruments.⁴¹

In pursuit of this objective, between 2012 and 2015, the working group engaged extensively with Māori on potential models of governance by facilitating 252 hui and working groups, inviting written submissions, and conducting interviews.⁴² Drawing on the responses received, the working group published a collective Māori vision of a constitutional framework that was consistent with te Tiriti and the rights and duties affirmed under UNDRIP (refer to spotlight in Chapter 3).

The Matike Mai Report emphasises the need to establish a values-based constitutional framework.⁴³ It identifies "political and social inclusiveness" as a central theme deriving from te Tiriti, in addition to seven specific interrelated values: tikanga, community, belonging, place, balance, conciliation and structure.⁴⁴ The value of place expressly recognises the need to "promote relationships with, and ensure the protection of Papatūānuku".⁴⁵

The working group set out a series of six indicative models for constitutional transformation. All the options require shared authority between Māori and the state, but they provide for this constitutional arrangement in different ways. The models provide for different spheres of influence described as "the rangatiratanga sphere" (where Māori make decisions for Māori); "the kāwanatanga sphere" (where the Crown will make decisions for its people); and "the relational sphere" (where Māori and the Crown will work together as equals).⁴⁶

In 2019, in response to ongoing pressure at the domestic and international level, Te Puni Kōkiri (the Ministry of Māori Development) established a working group to advise the government on a plan for implementing UNDRIP in Aotearoa New Zealand.⁴⁷ The report of the working group ("He Puapua") was released in 2019 as the result of an official information request.

He Puapua sets out a roadmap for realising the rights of Māori under UNDRIP by 2040, which is described as "Vision 2040". The overarching vision expressly recognises the central importance of the environment:⁴⁸

Our vision is that in 2040 rangatiratanga Māori is realised, Māori and the Crown enjoy a harmonious and constructive relationship and work together to restore and uphold the wellbeing of ngā tangata, Papatūānuku and the natural environment.

The roadmap for Vision 2040 comprises five core elements, which draw on the recommendations of the Matike Mai Report: rangatiratanga (in recognition of Māori authority over Māori matters); Māori participation in kawanatanga ("a bicultural sphere"); lands, territories and resources; culture; and equity.⁴⁹ The vision expressly recognises that effective participation requires that "Maori will have a meaningful and sometimes dominant voice in resource management decisions".⁵⁰

The roadmap envisages an enlarged Māori estate supported by significantly increased return of lands and waters, including takutai moana, to Māori ownership.⁵¹ In addition, it seeks to ensure iwi can contribute towards the control of, access to, and management of lands and resources within their rohe in accordance with tikanga and mātauranga Māori.⁵² A central overarching theme of He Puapua is the need to provide for equity between Māori and non-Māori in constitutional arrangements.

This context has a heavy bearing on what the principles and objectives of a future system should be (see Chapter 7). That is not just in terms of incorporating Māori values, information and worldviews into the system, but also the more direct issue of whether the system should actively pursue specific things like co-governance, the transfer of powers, and parallel Māori institutions, and the extent to which reforms impacting settlement rights are off the table. Some options for doing these things in the marine context appear throughout the report, although there will be many others.

Oceans reform will take place in the context of an ongoing and evolving conversation about Māori sovereignty under te Tiriti o Waitangi and the nature of sovereignty and constitutional arrangements in post-colonial Aotearoa New Zealand.

4.4 The importance of historical context

As mentioned above, the idea of oceans system reform is not new. A concerted effort was made two decades ago to do a similar thing, and although many contextual factors have moved on (including te Tiriti and biophysical change), lessons can still be learned from this attempt. We summarise the oceans policy process of the 2000s in Appendix 4. But it is also interesting to consider where the current system – which failed to be fundamentally transformed in the 2000s – has come from. This is intimately linked to the development of the broader resource management

system. A summary of this can be found in our previous work on resource management reform, as well as other publications.⁵³ In short:

- With the advent of a largely Western system of laws following British colonisation of Aotearoa New Zealand, the management of resources was initially considered to be one of property protection and minimising impacts of resource use on other people's health and property.
- It was not until the 1950s and 1960s, in the wake of the international environmental movement, that Aotearoa New Zealand started to implement laws specifically targeting environmental health. This was done in a fairly ad hoc way, and by the start of the 1980s a large number of resource and issue-specific statutes were in existence. Some remain today, such as the Wildlife Act, Marine Reserves Act and Marine Mammals Protection Act. This reflected an evolving international recognition of environmental issues.



Russell waterfront

- The domestic politics of the late 1970s and 1980s played a central role in producing the resource management system we have today. Under the oversight of Prime Minister Robert Muldoon, development became centralised and overrode many environmental considerations, epitomised in the National Development Act and bespoke legislation for the Clyde Dam.
- David Lange's Labour-led government came to power in 1984 on the back of political and public pressure for fundamental economic and social change across the board. There was a reaction against the centralised, untransparent and economically interventionist approach of previous times. The country also rode the wave of the broader international zeitgeist of economic rationalism and free market thought, and sought to reconcile this with a budding environmental movement.
- In the reforms devised in the later 1980s, central government took a back seat in both development and environmental management (most powers were devolved), many things were rationalised into a single effects-based RMA (that sought integrated management but rejected economic planning), institutional checks and balances were put in place (eg in the roles of the Environment Court and Parliamentary Commissioner for the Environment) and fragmented councils were amalgamated. Small government was the watchword of the day. Subject to limits (which were, admittedly, often not put in place), markets would provide.
- Fisheries management was transformed in this era with the advent of the QMS, where commercial fishing rights were privatised (reflecting the spirit of the times). This provided the currency for settling Te Tiriti claims for fisheries, and aquaculture claims were also settled (although not through perpetual occupation rights).
- Conservation legislation was not rationalised or integrated, but a unifying force was provided through the creation of a statutory Department of Conservation that was to administer other statutes under the umbrella of the Conservation Act.
- The core frameworks born in this period remain largely intact today, even though there has been no shortage of reform around them (eg many amendments to the RMA including for aquaculture, the creation of an EPA, new climate change legislation, two iterations of legislation for the foreshore and seabed, numerous Te Tiriti settlement acts,

special legislation for Auckland Council, and a new EEZ Act that roughly resembles the RMA).

Within this broader picture one can observe that the arc of marine legislation has been slightly different. Initially, conservation and pollution control efforts were concentrated on terrestrial landscapes – that is what people could see and understand – and to some extent this mentality has persisted until the modern day. The ocean and its resources were for a long time seen as so bountiful – including as a sink for waste – that human activity could have no impact. Until relatively recently, estuaries were commonly used as municipal rubbish tips, and aside from the most egregious forms of dumping, control of marine pollution and litter still does not have the same rigour about it as freshwater matters have seen in recent times.⁵⁴

Assumptions about the inexhaustibility of the oceans changed with a realisation that fish stocks were vulnerable things. As far back as 1866, legislation was passed to control the taking of oysters and in 1877 the Fish Protection Act introduced closed seasons and limits on the mesh size of nets for finfish.⁵⁵ This was combined with other measures in the Fisheries Act 1908. The ethos of the protective measures was to ensure fish and shellfish would be available for future catches – the collapse of stocks was bad for industry and people – rather than for the intrinsic value of the creatures or the health of surrounding ecosystems.⁵⁶ Indeed, in 1982 UNCLOS introduced and embedded the goal of “maximum sustainable yield” for fisheries at an international level,⁵⁷ which essentially remains the management aim in domestic fisheries management to this day.

The 1950s and 60s was a time when more New Zealanders ventured under the surface of the sea with the growing availability of SCUBA equipment. This revealed a vibrant and diverse underwater world that had been largely hidden from public view. This was also a time when marine science became more firmly established. The opening of a marine laboratory near Leigh, in 1962, directly led to the passing of the Marine Reserves Act in 1971 and the establishment of the first marine reserve in 1975, often said to be the first no-take protected area in the world. But the marine reserve legislation was modest in ambition, reserves were only to be set aside for scientific purposes, and those that slowly appeared around the coast were hard fought for, and generally very small in order to minimise impacts on fishers.

The 1970s was also a time when the anti-whaling movement lit up the popular imagination, due to the ongoing slaughter of diminishing whale populations. This prompted special legislation in Aotearoa New Zealand

to protect marine mammal species, although a carve out was included for fisheries bycatch.⁵⁸ There was also recognition that other marine wildlife (albeit only a few species) deserved protection that went beyond the achievement of sustainable fish stocks.⁵⁹

Shipping, and the threat of catastrophic oil spills from ships and offshore installations, are now managed.⁶⁰ The most egregious point source discharges into the oceans have been cleaned up, albeit mainly because of human health imperatives. Broad responsibilities to manage pollution and marine biodiversity were created in the RMA. Some glaring gaps in the management of the EEZ were finally filled in 2012 with the passage of the EEZ Act. Biosecurity concerns with shipping and aquaculture are now being tackled. And debates about the rights and interests of mana whenua have been addressed – albeit with many questions and issues still to be resolved – through the MACA Act.

However, technological advances over the last 50 years have not only brought better scientific understanding of the oceans and human impacts on life within them, but also the ability to exploit it at a larger scale (and in new ways). Overall, the story of the oceans management system has been one of piecemeal adjustment based on the gradual realisation of new threats. Things have been tacked on. Gaps have been filled slowly and, arguably, reluctantly. Many still remain, not least with respect to MPAs, climate change and systemic land-based pressures. On land, greater integration has been achieved through the RMA.

4.5 Other contextual features

A few other contextual points should be noted, that are important for where policy makers find themselves in the present day, and what they are likely to face in the future. These are not always obvious from reading a statute or government policy, but can be very powerful drivers behind the scenes.

- The presence of many existing rights and interests in the marine space, including property rights under the QMS.
- A sometimes fraught and unresolved relationship between commercial and recreational fishing sectors.
- Growing competition for different uses in the marine environment, including novel ones like offshore aquaculture, renewable energy, deep-sea mining and carbon capture and storage.

- Increasing environmental awareness amongst the public, particularly in younger generations.
- A volatile international context, including a broader fracturing of consensus within liberal democracies, supply chain disruptions and economic volatility.

A future system will need to pre-empt and address future challenges that could emerge, including the following.

- Human population change, and its implications for the pressures humans will put on oceans (especially in urban areas where population growth will be fastest), food security (including the role of protein from fish and fish farming), energy needs (including renewables in the marine space) and basic services (eg the need for drinking water and potential for desalination).
- Technological change, including the risks this poses for the marine environment (eg novel chemicals, more intensive forms of resource exploitation such as deep sea mining) but also the opportunities it affords in terms of cleaner industry and enhanced monitoring and information gathering.



Mussel harvesting, Pelorus Sound

- Increasing political and economic expectations of Māori.⁶¹
- The unpredictability of climate change and its impacts, not just directly on the oceans, but also on human society and its use of the marine space.
- Ongoing and potentially escalating risks from marine biosecurity, particularly for the aquaculture industry which is facing new threats associated with competition from invasive species (which can foul up lines) and diseases (which can wipe out stock). Biosecurity risks also exist for wild fisheries to the extent that habitats are lost through invasive species.
- Social change and the evolving expectations of society.
- International developments, including in international marine law, but also in macro-level socio-political trends.
- The ongoing, unpredictable and cross-cutting implications of Covid-19 and future social and health emergencies (including implications for funding other things).

4.6 Concluding comments

Placing the oceans management system in its broader historical, social and reform context highlights that it is in a constant state of evolution. The system is never truly created or dismantled; it is an organic thing that is moulded to the changing shape of human society. However, in a first principles rethink of our oceans management system, it is legitimate to go further than just putting out fires and anticipating problems.

With the possible exception of the late 1980s, the 2020s can arguably be seen as an unprecedented hive of policy activity and creative thinking. Environmental awareness is growing, and Covid-19 has caused an important moment of reflection about our society and what it stands for. Thus, we need to think positively – the system is a tool for building our relationship with te moana, not just for reigning in the more destructive tendencies of humanity. What opportunities are out there? What do we want our future to be, keeping in mind it is likely to be quite different to the present?⁶² We have an opportunity to create something new, meaningful and reflective of who we are as a people and a country. What values do we want the oceans management system to reflect, in our unique cultural context?⁶³



Tahunanui Beach, Nelson

Endnotes

- 1 For example, see *Trans-Tasman Resources Ltd v Taranaki-Whanganui Conservation Board* [2020] NZCA 86.
- 2 For example, see *Environmental Defence Society Inc v Otago Regional Council* [2019] NZHC 2278, which is subject to appeal in the Supreme Court at the time of writing.
- 3 For example, see *Ngāi Tai ki Tāmaki Tribal Trust v Minister of Conservation* [2018] NZSC 122.
- 4 See Ministry for the Environment “Essential freshwater new rules and regulations” (April 2021) <www.environment.govt.nz>; and Ministry for Primary Industries “Productive and Sustainable Land Use” (16 November 2020) <www.mpi.govt.nz>.
- 5 *Attorney-General v The Trustees of the Motiti Rohe Moana Trust* [2019] NZCA 532.
- 6 Ministry of Business, Innovation and Employment *Responsibly Delivering Value: A Minerals and Petroleum Resource Strategy for Aotearoa New Zealand: 2019-2029* (November 2019).
- 7 *Environmental Defence Society Inc v Otago Regional Council* [2019] NZHC 2278 [Port Otago], which is subject to appeal in the Supreme Court.
- 8 *Royal Forest and Bird Protection Society v Minister of Fisheries* [2021] NZHC 1427 which is now subject to appeal.
- 9 *Trans-Tasman Resources Ltd v Taranaki-Whanganui Conservation Board* [2020] NZCA 86.
- 10 Minister for Oceans and Fisheries “Oceans and Fisheries portfolio – ensuring healthy ecosystems” (2 July 2021).
- 11 Paul Majurey and Christian Whata “Māori and Environmental Law” in Derek Nolan (ed) *Environmental and Resource Management Law* (LexisNexis, online ed, 2021) at [14.69].
- 12 Robert Joseph and others *Stemming the Colonial Tide: Shared Māori Governance Jurisdiction and Ecosystem-Based Management over the Marine and Coastal Seascape in Aotearoa New Zealand – Possible Ways Forward* (Ko Ngā Moana Whakauka and Te Mata Hautū Taketake – the Māori and Indigenous Governance Centre, Waikato, 2020)
- 13 *Re Edwards (Te Whakatohea (No2))* [2021] NZHC 1025.
- 14 Claire Charters and others *He Puapua: Report of the Working Group on a Plan to Realise the UN Declaration on the Rights of Indigenous Peoples in Aotearoa New Zealand* (Te Puni Kōkiri, 1 November 2019).
- 15 Resource Management Review Panel *New Directions for Resource Management in New Zealand*, (June 2020).
- 16 Ministry for the Environment *Natural and Built Environments Bill Exposure Draft* (June 2021).
- 17 With some exceptions, notably the absence of mandatory targets. See also Environmental Defence Society “Submission on the Natural and Built Environments Bill (Exposure Draft) 2021”, accessible at <https://www.eds.org.nz/our-work/media/media-statements/media-statements-2021/changes-needed-to-strengthen-the-exposure/>.
- 18 See Minister for Oceans and Fisheries “Oceans and Fisheries portfolio – ensuring healthy ecosystems” (2 July 2021); Minister for Oceans and Fisheries “Fisheries system reform agenda” (2 July 2021); Minister for Oceans and Fisheries “Fisheries Amendment Bill: Strengthening fishing rules and policies: landings and discards” (2 July 2021); Minister for Oceans and Fisheries “Fisheries Amendment Bill: Strengthening fishing rules and policies: offences and penalties and agile decision-making” (2 July 2021); Minister for Oceans and Fisheries “Revitalising the Hauraki Gulf – Government Sea Change Strategy” (2 July 2021); Minister for Oceans and Fisheries “Initial response to Prime Minister’s Chief Science Advisor’s report on commercial fishing” (2 July 2021); and Minister for Oceans and Fisheries “On-board cameras across the inshore fishing fleet” (2 July 2021).
- 19 Minister for Oceans and Fisheries “Fisheries system reform agenda” (2 July 2021).
- 20 Office of the Prime Minister’s Chief Science Advisor *The Future of Commercial Fishing in Aotearoa New Zealand* (February 2021).
- 21 Around 300 inshore fishing boats are intended to have cameras by 2024.
- 22 Which is to be rolled out over several years to maintain the value of quota as fishers transition to more selective methods of fishing to avoid non-target species. QMS species, whether alive or dead, must be landed unless an exemption is issued by the Minister for Oceans and Fisheries. In other words, fishers will have to account for all fishing mortality against ACE or deemed values, creating an incentive to avoid fish species that have low or no value to them – in simple terms; if you kill it you will need to pay for it.
- 23 Some of these measures are reflected in an amendment bill that has just been introduced to the House at the time of writing, including tightening commercial fishing rules for landings and discards; introducing new mechanisms for commercial and recreational management decision-making (including pre-set decision-rules); enabling the further use of on-board cameras on vessels; and creating a new defence to help save marine mammals and protected sharks and rays.
- 24 Methods such as bottom trawling and Danish seining will be excluded from the Hauraki Gulf except within limited trawl corridors. Recreational scallop dredging will be banned and commercial scallop dredging limited to its current footprint.
- 25 And establishment of a multi-stakeholder Hauraki Gulf Fisheries Plan Advisory Group.
- 26 Expanding the Leigh and Hahei marine reserves as well as establishing 11 new High Protection Areas and five new Seafloor Protection Areas. There is an intention to use new legislation to achieve this, to avoid “the antiquated procedures in the Marine Reserves Act”.
- 27 Comprised of the Minister of Oceans and Fisheries, Minister for the Environment, Minister of Conservation and the Under-Secretary for Oceans and Fisheries.
- 28 Hosted by the Department of Conservation. This comprises officials from the Ministry for Primary Industries and Ministry for the Environment, and is supported by other agencies as required.
- 29 One Cabinet paper suggests this “could consider issues such as: Marine spatial planning across the territorial sea and the EEZ... comparisons with oceans governance and ecosystem-based management in other jurisdictions, and their potential suitability in the New Zealand context...i.e. legislative, institutional and funding arrangements, including the incorporation of Māori world views and interests...” (Minister for Oceans and Fisheries “Oceans and Fisheries portfolio – ensuring healthy” ecosystems (2 July 2021) at 8-9).
- 30 At 8.
- 31 See Ministry for the Environment “Proposed national policy statement for indigenous biodiversity” (25 June 2021) <<https://environment.govt.nz/acts-and-regulations/national-policy-statements/proposed-nps-indigenous-biodiversity/>>
- 32 Department of Conservation *Te Mana o te Taiao - Aotearoa New Zealand Biodiversity Strategy* (Department of Conservation, Wellington, August 2020) at 57 and 53.
- 33 Department of Conservation *Te Mana o te Taiao - Aotearoa New Zealand Biodiversity Strategy* (Department of Conservation, Wellington, August 2020) at 53.
- 34 Robert Joseph and others *Stemming the Colonial Tide: Shared Māori Governance Jurisdiction and Ecosystem-Based Management over the Marine and Coastal Seascape in Aotearoa New Zealand – Possible Ways Forward* (Ko Ngā Moana Whakauka and Te Mata Hautū Taketake – the Māori and Indigenous Governance Centre, Waikato, 2020)
- 35 Michael Neilson “Land Back’: Green Party calls for revamp of Treaty settlements” *NZ Herald* (online ed, 7 February 2022) <www.nzherald.co.nz>
- 36 See generally Jacinta Ruru “Indigenous Ancestors” in Sumundu Atapattu and others (eds) *The Cambridge Handbook of Environmental Justice and Sustainable Development* (Cambridge University Press, Cambridge, 2021) 183.
- 37 Claire Charters and others *He Puapua: Report of the Working Group on a Plan to Realise the UN Declaration on the Rights of Indigenous Peoples in Aotearoa New Zealand* (Te Puni Kōkiri, 1 November 2019).
- 38 Dame Anne Salmond “He Puapua and a Forgotten Promise” *Newsroom* (online ed, 12 July 2021) <www.newsroom.co.nz>
- 39 See Margaret Mutu and Moana Jackson *Whakaaro Here Whakaumu mō Aotearoa* (Matike Mai Aotearoa, Independent Iwi Working Group on Constitutional Transformation, January 2016).
- 40 He Whakaputanga o te Rangatiratanga o Nu Tirene (the Declaration of Independence of the United Tribes of Aotearoa New Zealand) was initially signed by 34 rangatira on 28 October 1835 and preceded the signing of te Tiriti. It was formally acknowledged by the Crown in 1836, and subsequently signed by additional rangatira. He Whakaputanga expressly recognises, inter alia, Māori authority and independence and informs the constitutional framework of Aotearoa New Zealand.
- 41 Margaret Mutu and Moana Jackson *Whakaaro Here Whakaumu mō Aotearoa* (Matike Mai Aotearoa, Independent Iwi Working Group on Constitutional Transformation, January 2016) at 7.
- 42 Margaret Mutu and Moana Jackson *Whakaaro Here Whakaumu mō Aotearoa* (Matike Mai Aotearoa, Independent Iwi Working Group on Constitutional Transformation, January 2016) at 7.
- 43 Margaret Mutu and Moana Jackson *Whakaaro Here Whakaumu mō Aotearoa* (Matike Mai Aotearoa, Independent Iwi Working Group on Constitutional Transformation, January 2016) at 68.
- 44 Margaret Mutu and Moana Jackson *Whakaaro Here Whakaumu mō Aotearoa* (Matike Mai Aotearoa, Independent Iwi Working Group on Constitutional Transformation, January 2016) at 69.
- 45 Margaret Mutu and Moana Jackson *Whakaaro Here Whakaumu mō Aotearoa* (Matike Mai Aotearoa, Independent Iwi Working Group on Constitutional Transformation, January 2016) at 69.

- 46 Margaret Mutu and Moana Jackson *Whakaaro Here Whakaumu mō Aotearoa* (Matike Mai Aotearoa, Independent Iwi Working Group on Constitutional Transformation, January 2016) at 9.
- 47 Claire Charters and others *He Puapua: Report of the Working Group on a Plan to Realise the UN Declaration on the Rights of Indigenous Peoples in Aotearoa New Zealand* (Te Puni Kōkiri, 1 November 2019).
- 48 Claire Charters and others *He Puapua: Report of the Working Group on a Plan to Realise the UN Declaration on the Rights of Indigenous Peoples in Aotearoa New Zealand* (Te Puni Kōkiri, 1 November 2019) at iv.
- 49 Claire Charters and others *He Puapua: Report of the Working Group on a Plan to Realise the UN Declaration on the Rights of Indigenous Peoples in Aotearoa New Zealand* (Te Puni Kōkiri, 1 November 2019) at v.
- 50 Claire Charters and others *He Puapua: Report of the Working Group on a Plan to Realise the UN Declaration on the Rights of Indigenous Peoples in Aotearoa New Zealand* (Te Puni Kōkiri, 1 November 2019).
- 51 Claire Charters and others *He Puapua: Report of the Working Group on a Plan to Realise the UN Declaration on the Rights of Indigenous Peoples in Aotearoa New Zealand* (Te Puni Kōkiri, 1 November 2019).
- 52 Claire Charters and others *He Puapua: Report of the Working Group on a Plan to Realise the UN Declaration on the Rights of Indigenous Peoples in Aotearoa New Zealand* (Te Puni Kōkiri, 1 November 2019).
- 53 See generally C Knight *Beyond Manapouri: 50 years of environmental politics in New Zealand* (Canterbury University Press, 2018) and D Young *Values as law: The history and efficacy of the Resource Management Act* (Victoria University of Wellington Institute of Policy Studies, 2001).
- 54 For example, wastewater overflows, fishing nets as opposed to litter in urban streets, nutrient and sediment inputs and so forth.
- 55 Gerard Hutching and Carl Walrond "Marine conservation – Fisheries" (12 June 2006, updated 1 September 2015) *Te Ara - the Encyclopedia of New Zealand* <www.TeAra.govt.nz/>
- 56 Gerard Hutching and Carl Walrond "Marine conservation – Fisheries" (12 June 2006, updated 1 September 2015) *Te Ara - the Encyclopedia of New Zealand* <www.TeAra.govt.nz/>.
- 57 Arts 61 and 119.
- 58 Marine Mammals Protection Act 1978.
- 59 Through scheduling in the Wildlife Act 1953.
- 60 Through the Maritime Transport Act 1994.
- 61 A specifically Māori economy is thought to currently be around \$50 billion. See Chapman Tripp *Te Ao Māori: Trends and insights* (Chapman Tripp, online ed, June 2017); The Treasury *He Tirohanga Mokopuna: 2016 Statement on New Zealand's Long-Term Fiscal Position, New Zealand* (22 November 2016).
- 62 Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation* (Environmental Defence Society, Auckland, December 2018) at ch 3.
- 63 At 38; Waitangi Tribunal *Te Paparahi o Te Raki (Northland)* (Wai 1040, 2014); Waitangi Tribunal *Ko Aotearoa Tenei: A Report into Claims Concerning New Zealand Law and Policy Affecting Māori Culture and Identity* (Wai 262, 2011); and Waitangi Tribunal *The stage 2 report on the national freshwater and geothermal resources claims* (Wai 2358, 2019).

5 Conceptualising a future oceans management system



5.1 Introduction

So far, we have outlined a number of problems and challenges that a future system will need to address. We have also highlighted some important contextual matters that any reform effort will need to be sensitive to. The scene is now set for Part 2 where we ask: what could a new system look like?

It is not particularly useful to simply offer a laundry list of possible changes in random order. We need to conceptualise the system as a connected whole, and divide it into manageable pieces for analysis. In this chapter we briefly explain options for how the system could be conceptualised/constructed, and describe the approach we have taken. In the chapters that follow, we then use our adopted structure to explore reform options.

5.2 Ways to divide up the oceans management system

The oceans management system could be conceptualised in a variety of ways (see Figure 5.1). For example, it is possible to look at the system on a sector-by-sector basis (eg chapters outlining reform options for fishing, aquaculture, mining, urban development); a resource-by-resource basis

(eg chapters on fish, coastal space, minerals); or a space-by-space basis (eg chapters on the Hauraki Gulf, Fiordland, a particular fisheries management area). It is also possible to go through existing statutory frameworks (eg chapters looking at possible changes to the RMA, the Fisheries Act and conservation legislation), or to explore reforms on a problem-by-problem basis (eg options for addressing biodiversity loss, climate change, chemical pollution). All are valid ways of thinking about “parts” of the system. Indeed, a number of more targeted analyses have looked at the system through these lenses in the past, including with respect to fisheries and the management of the EEZ.¹

Focusing on specific lenses like domains, spaces, sectors and resources remains important. We need to consider what makes the management of some of them different from others. For example, extensive property rights on land (one space) mean aspects of the system (and therefore reform options) may look quite different to those for the sea (another space).² Some specific locations (eg Fiordland) have features that may warrant dedicated protection or focus. We may have objectives or visions for some sectors or resources (eg renewable energy or aquaculture) that do not apply to others (eg oil and gas extraction). Each requires targeted analysis within a broader reform effort.

Raewyn Peart



Salmon farm, Marlborough Sounds

Lens	Explanation	Examples
Domain	An interrelated set of resources, or a “part” of the environment that is valued. A single domain can exist across multiple spaces, ³ be impacted by multiple sectors, and contain multiple resources. Multiple domains are relevant to the marine context because they can impact on it (eg biodiversity, land, freshwater, soil, climate), even though “marine” is often considered to be a domain in its own right.	Marine, freshwater, biodiversity (or flora and fauna), ⁴ soil, land, air, climate.
Space	A geographical area, or a category of area defined by its predominant use. A space can contain multiple domains, ⁵ support multiple sectors, and contain many resources.	Taranaki (a region); the EEZ (a jurisdictional area); rural/urban (a category of area); ⁶ Fiordland (an area defined by physical characteristics).
Sector	The different ways in which humans use resources. ⁷ A single sector can use multiple resources, ⁸ impact multiple domains, and operate across multiple spaces.	Fishing, mining, aquaculture, navigation, tourism, scientific study, conservation.
Resource ⁹	The category of thing being used/consumed. ¹⁰ A single resource can be used by multiple sectors, ¹¹ exist in multiple domains, ¹² and exist across different spaces. ¹³	Fish, oil and gas, water, sand, wind.
Legislation	Existing statutory frameworks.	The RMA, Fisheries Act, Conservation Act, Marine Mammals Protection Act.
Problem	Specific problems or issues that need to be solved or addressed.	Biodiversity loss, water quality, climate change.

Figure 5.1: Some possible ways to conceptualise the oceans management system for analysis

However, an approach that only looks through one of these lenses risks becoming siloed, where interactions between spaces, sectors, resources, problems and domains are either lost or underappreciated. For example, a focus on fishing (a single sector) may ignore the fact that the many land-based pressures (eg sediment) affect fish stocks directly or through habitat degradation. This has been the case in practice, where a sectoral silo for fisheries management has meant that there has been little cognisance of decisions taken on land that impact that sector.¹⁴ Similarly, a focus on marine mining (another sector) risks ignoring the tensions that might arise between potential competing uses of seabed space (for example, between oil and gas extraction and carbon geo-sequestration in partially depleted wells).¹⁵ Overall, as we explained in a previous report:¹⁶

the greatest risk is that domain-based, spatial and sectoral approaches all have a tendency to presuppose at least something. A domain-based approach assumes that each receiving environment can be considered,

at least partly, in isolation of the others. In reality, they are intimately connected across varying spatial scales [for example, the important link between freshwater catchments and estuaries].

Similarly, a spatial approach tends to focus on spaces artificially delineated by humans [for example, the arbitrary line between the territorial sea and EEZ, or between QMAs]... It also runs the risk of ignoring ecological and other units (eg landscape or cultural) that frequently exist across lines on a map.

Furthermore, considering sectors is not only hard to do (there are thousands of potential categories, from horticulture to fishing), but also risks neglecting the importance of cumulative effects on receiving environments (which may be impacted by a large number of different sectors at the same time).

As shall be seen in Chapter 11, one issue with the current oceans management system is that it is fragmented across legislation, institutions and tools that are focused on a narrow range of sectors, spaces or resources. Thus looking at each existing statute in turn (eg the RMA, the Fisheries Act, the Marine Reserves Act) may fail to capture some important bigger picture questions like the tools that can be deployed to link silos together (eg marine spatial planning), the objectives underpinning them (eg te ora nga o te taiao¹⁷ versus MSY), or the potential for fundamental legislative redesign (eg combining separate statutes into a single Oceans Act). Thus while going through existing frameworks is a useful way to describe the current system, it is a less useful for imagining the future. Individual “problems” are also often too interlinked to be tackled one by one.¹⁸

Part 2 of the work is about exploring options for reform. This involves dividing the system into different parts for analysis. How this is done is important, as it reflects how one conceptualises the system as a whole.

There are risks in approaching the system as a series of discrete sectors, geographical spaces, individual resources, separate domains, individual problems or existing statutes. Doing so may not capture the important links between and across these things.

Raewyn Peart



Danish seining, Hauraki Gulf

5.3 Our preferred approach: thematic layers

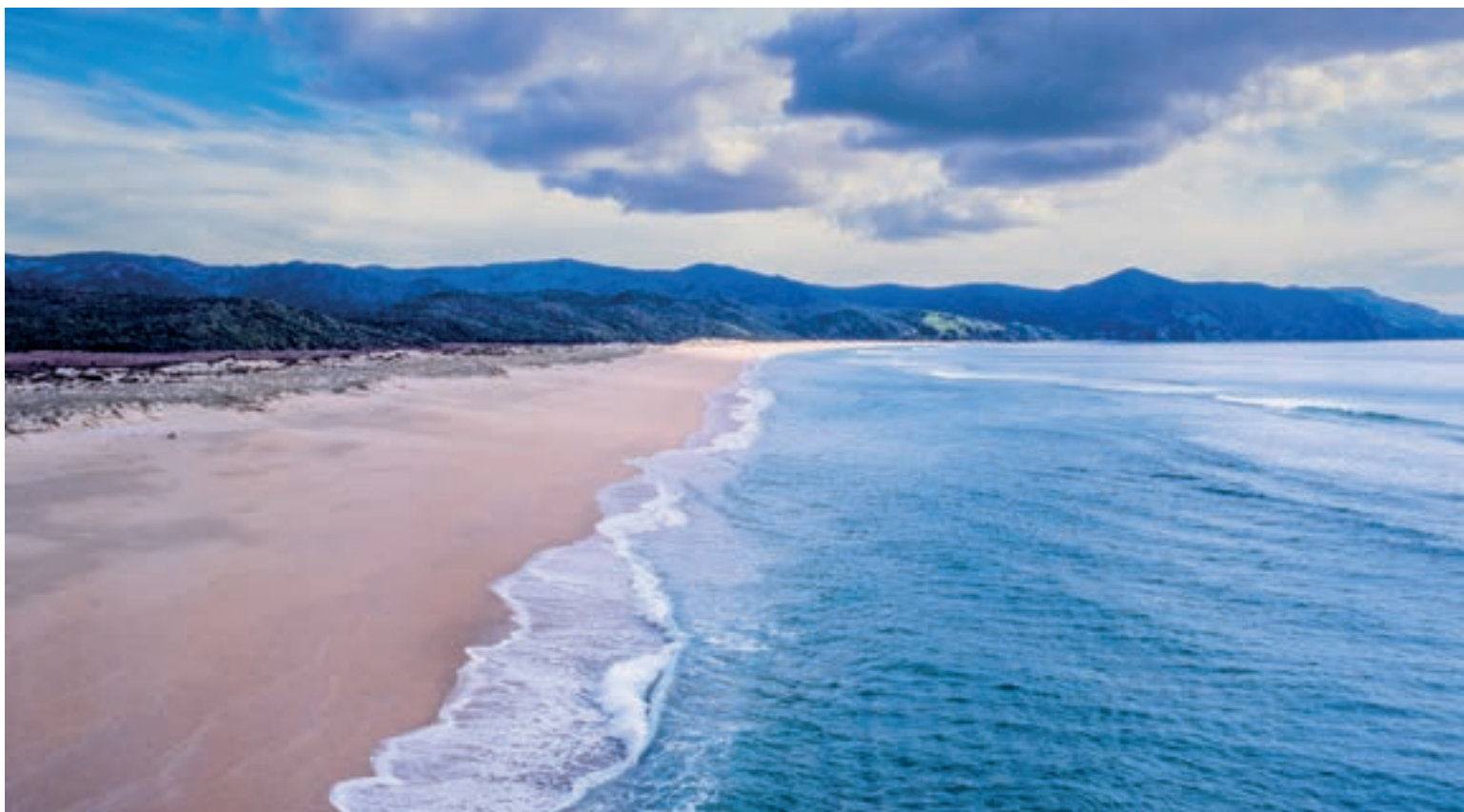
We think it is most useful to conceptualise the oceans management system as a series of broad thematic layers that cover the whole system. This enables us to split the system up in a way that cuts across all the things listed above, rather than analysing separate pieces (sectors, spaces, legislation) that then need to be stitched together. These broad themes are explored below, and comprise norms (eg ethics, principles, objectives), tools (different kinds of intervention) and structures (legislative and institutional design). For all of these matters, “networks” (things that move across and between other elements of the system) are relevant. These include the flow of money, information and public involvement.

A thematic structure is arguably more sensitive than others (eg sectoral, statute-by-statute) to the holistic approach of te ao Māori. Māori matters are not simply things the system has to address or “do”. Te ao Māori needs to pervade all tiers of the system (including how it is conceptualised) so that it is fully integrated, not treated as an add-on, afterthought, or a

group of matters placed in opposition to (or as grudging concessions to) a dominant Western paradigm.

Of course, splitting analysis in any way, including into themes, creates risks. Themes like legislative design, institutional settings and public participation are closely connected to each other and cannot be treated in isolation. It is therefore important to draw all these threads together to consider how themes work together to form a new system (see Part 3 of the report). However, as a whole, we think these cross-theme connections are easier to make, and provide deeper system-wide insights, than those relying on other analytical building blocks like statutes or sectors.

When considering system-wide reform options we have structured our analysis according to themes, including norms, tools and structures. Across these things, networks (eg money, information and public involvement) are also important to consider.



Te Werahi Beach

Craig Potton

The order in which we tackle these themes is important. Is it better, for example, to adopt a “top-down” approach? That would see us begin with overarching questions around ethics and principles, through to legislative structures and institutional design, then broad planning tools and finally small-scale interventions like consents and economic incentives. Broadly speaking, we took a top-down approach in our resource management reform project, saying:¹⁹

It makes sense to see relationships as broadly linear by starting with norms (what outcomes we ought to pursue, such as principles), then considering components of the system needed to achieve them (what kinds of things it needs to do, and the structures we need to establish, such as legislation and institutions), and ending with how we implement them (mechanisms such as plans, consents, processes and incentives). The conclusions of the prior exercise inform the consideration of the latter.

Alternatively, we could build our way from the bottom-up, focusing on the easy wins first (eg improvements to individual tools) and moving to larger scale interventions like changing institutional settings (eg restructuring local government) and legislative boundaries (eg creating an integrated Oceans Act). Only at the end would we consider options for more fundamental shifts to our ethics and principles. Essentially, this would be about moving from “least change” options to “most change” options, where the reader would be invited to draw a line at the point at which his or her appetite for reform abated.

In our view, big picture normative questions need to be tackled first. Even smaller scale changes (eg the deployment of underutilised tools like sustainability measures or MPAs) requires us to consider first *what we are aiming for and why*. Any change needs a solid normative framing. For example, deploying tools/mechanisms like legal personhood for nature, or putting a price on the natural world, requires us first to think deeply about potentially conflicting worldviews (is it right to treat nature as a commodity? Is it naive to think of the oceans as a non-human person?). Deploying marine reserves requires us to ask what their purpose is – scientific research? Overall biodiversity enhancement? Tourism and recreation?

The theme of “norms” can be broken down into a series of sub-themes to be considered in turn, starting with what the system itself should and should not cover (ie when there is “overreach”), through to its ethical foundations, its principles, and the specific objectives it pursues (see Chapter 7).

It is important to think about the toolkit before considering the structural features of the system (how to design legislation and institutions) (see Chapters 8, 9 and 10). The latter need to be designed around the former. “Tools” are, essentially, any form of public intervention within the scope of the oceans management system.

Ultimately, statutes and institutions are about providing the most effective frameworks through which interventions can be made. In other words, form (structures like statutes and public institutions) should really follow function (the tools they deploy). For example, we should not create a Fisheries Act and then ask what it should contain, nor should we create an environmental regulator and then ask what it should do and why.

The mix of tools we use is not normatively neutral. To choose which tools are “best” we first need to have a sense of what they are trying to achieve. The risks of getting the order wrong can be seen in tools like MPAs, where a single type of tool is currently provided for in multiple statutes with different purposes, processes and institutional guardians. It can also be seen in the Tiriti clauses that differ significantly across legislation with no clear rationale for such differences.

The structural features of the system – legislation (see Chapter 11) and institutions (see Chapter 12) – then need to be considered closely together. As mentioned above, statutory and institutional boundaries, purposes/ mandates and relationships need to provide the most effective “home” for tools to be deployed and supported. But the design of legislation and institutions can also provide additional complementary measures. For example, fragmented *statutory* arrangements can be overcome by giving a single *institution* powers or oversight over all of them (eg the Department of Conservation administers a wide range of conservation legislation under the umbrella framework of the Conservation Act).

We are seeking to construct reform options for a future system through a series of themes. Essentially, this looks at:

- norms – what the system should be seeking to achieve;
- tools – the mechanisms/interventions by which the system seeks to achieve them; and
- structures – the legislative and institutional arrangements framing the system’s tools.

Finally, it is worth reiterating that this report is about presenting *options* for reform. Many different options could be put together across themes to create potentially hundreds of specific models for the future. In Part 3, we offer several possible starting points for what a system could look like overall.

It is also worth noting that a new system (no matter what it looks like) will not simply snap into place instantly. There will be a journey to get there over time. A sound transition plan, and one that is just and equitable in managing the process of change, will be crucial, but can only be considered in detail once there is a sense of what a new system should look like.

5.4 Concluding comments

The above discussion has two purposes. First, it outlines the way in which we are thinking about, and splitting up, the oceans management system for analysis. It provides a structure for the report and way of thinking about options that breaks down an otherwise overwhelmingly large subject into manageable chunks. But the discussion is also intended to highlight the importance of having *some* form of overarching conceptual framework, and for that to be clearly articulated in any future reform process the government undertakes. A theme-based conceptualisation is the one we have adopted (norms, tools, structures), and is one that could be usefully used for a future reform process, although others would also be possible. We turn now to a thorny question: why do we have a system at all and what do we expect it to do?



Picton

Endnotes

- 1 For example, see Raewyn Peart, Kate Mulcahy and Kelsey Serjeant *Governing Our Oceans: Environmental Reform for the EEZ* (Environmental Defence Society, Auckland, April 2011) and Office of the Prime Minister's Chief Science Advisor *The Future of Commercial Fishing in Aotearoa New Zealand* (February 2021).
- 2 Although there are still some property rights in the marine context (eg quota, privately held parts of the coastal marine area).
- 3 For example, land spans the rural-urban divide and exists under lakes, rivers and the sea; flora and fauna/biodiversity does too.
- 4 Strictly speaking, "biodiversity" is less a domain than it is an objective (a diversity of flora and fauna, usually referring to indigenous flora and fauna). However, it is a convenient shorthand.
- 5 For example, Fiordland spans land and sea, while Taranaki contains freshwater and biodiversity.
- 6 Despite some treating "urban" as a domain alongside water, air and marine, it is better characterised as a space.
- 7 This is not exclusively for commercial gain. A sector can include recreation and conservation.
- 8 This includes the "resource" of a receiving environment for waste/pollution.
- 9 We recognise that the term "resource" tends to suggest an instrumentalist approach to value, and that other words may be more appropriate (eg taonga, te taiao or environment).
- 10 Not all resources are consumed. For example, marine mammals are a valuable resource for tourism (whale watching).
- 11 "Fish" and "fishing" are quite different. Fish can be used by sectors other than fishing (eg for conservation), and fishing has impacts on resources other than fish (eg habitats, marine mammals, other forms of bycatch).
- 12 For example, fish exist in domains like "marine", "freshwater", and "biodiversity".
- 13 For example, across urban-rural boundaries and jurisdictional boundaries like the EEZ-coastal marine area.
- 14 Fisheries Act 1996.
- 15 Carbon sequestration is a process by which captured and compressed carbon dioxide emissions are pumped into depleted or partially depleted oil and gas formations. See Barry Barton, Kimberley Jane Jordan and Greg Severinsen *Carbon capture and storage: Designing the legal and regulatory framework for New Zealand*, (Centre for Environmental, Energy and Resources Law, Te Piringa Faculty of Law, University of Waikato, September 2013).
- 16 Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation* (Environmental Defence Society, Auckland, December 2018) at 34.
- 17 See *Natural and Built Environments Bill* (Exposure Draft, 2021), cl 5; Ministry for the Environment *Natural and Built Environments Bill Parliamentary Paper on the Exposure Draft* (June, 2021), [93]-[99] at <www.environment.govt.nz/publications/natural-and-built-environments-bill-parliamentary-paper-on-the-exposure-draft>.
- 18 For example, multiple overlapping categories of problems identified in environmental reporting.
- 19 Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation* (Environmental Defence Society, Auckland, December 2018) at 35. In the Phase 1 report we structured our thinking according to a cascade of themes: from norms (ethics and principles), to functions (what roles the system should and should not play), to structures (laws, institutions, public participation), and finally tools (concrete interventions, like regulations and taxes, which shape people's actions).

6 What is the rationale for having a system?



6.1 Introduction

This project is about the formal system, not people's personal ethics. The normative basis of those two things can be quite different. The most fundamental question to ask is, therefore, why we need an oceans management system at all. This can be recast in an even simpler way: *do we need an oceans management system?* People pursue individual and collective aims every day without a complex array of laws, institutions and public interventions to help them.

6.2 The rationale for having a system

All bar the most libertarian are, in modern times,¹ likely to accept that *some* kind of formal system is required, even if it is just to manage inevitable conflict and to prevent a tragedy of the commons in the context of finite resources. Yet it is still important to think about the reasons *why* the system is there. This is not so much about justifying its existence – that is easy to do by looking at conflicts and environmental impacts in the past – but rather about identifying where its boundaries should be, and what should be included (or excluded) at the margins. In other words, the reasons we think a system is necessary shed light on the places it is not required: the point where public authorities should have little or no role,² and where freedom, personal choices and unfettered markets should reign supreme.

Although there is unlikely to be an actual provision in a statute that specifically outlines what the rationale for the system is, it is important to have this discussion up front to avoid arguments later on about whether a particular tool or institution is going “too far” and overreaching what it is meant to be doing.

Some kind of formal system is needed for marine management. However, considering the basic reasons why we have a system sheds light on where its boundaries should be and what it should and should not do.

Perhaps surprisingly, there is no clear explanation as to where the boundaries of the *current* system lie. There is no statute that tells us why, overall, a system is required at sea. Instead, more specific interventions tend to be justified on their own merits in response to changing values,³ new technologies,⁴ or emerging issues.⁵ The lack of an overall sense of the system's scope can be seen in the case of MPAs. New proposals for protection often meet accusations that the system is overreaching

its proper boundaries by infringing people's rights (eg to fish), whereas others see new spatial protections as a core part of what the system should be doing.

This kind of debate about the limits of public power has been particularly noticeable over the past few years in the wake of Covid-19 and evolving expectations around te Tiriti o Waitangi. What is the relationship between the state and its citizens' choices? And between the Crown and Māori? We can give this a constitutional or political flavour – what limits should be placed on government power? Equally, it can be cast as a moral question – when is it right for others to constrain my freedom of choice? We can even speak in economic terms – to what extent should free markets be influenced or “distorted” by restrictions?

The oceans are a particularly fraught place in which these questions play out. On the one hand, the sea has long been seen as a place where people can escape the constraints of society, as reflected in the concept of “running away to sea”. Yet to some it is also a common or shared space, where the government has a legitimately *stronger* role to play than on land. We tackled this subject in the context of the broader resource management system, where we said:⁶

Public authorities can intervene in a wide range of things. The real issue is whether they should. Are there occasions where we should categorically not use public interventions to influence outcomes, and instead let private persons get on with doing it themselves? If so, what test should we use to determine what those occasions are?

The oceans management system is about public intervention. Defining its boundaries requires us to think carefully about the proper role of public authorities vis a vis private freedoms. It is useful to consider such questions to establish a common foundation for what the system is there for.

6.3 Narrow rationales for intervention

Some may be of the view that the system should only step in where something has “gone wrong”. In economics language, intervention might be justified when there is a market failure, such as an “externality” that needs to be “internalised”. A negative externality is created when a person does not bear the full cost of his or her actions (eg when a polluter does not pay).⁷ The task of public authorities is said to be to correct or

“internalise” externalities by imposing (at least part of) their true cost on those who created them.⁸ This increases the cost of undertaking the activity which, in turn, acts as a disincentive to carrying it out (thereby potentially reducing its adverse effects).

There are different ways to do that, but all require a degree of public intervention. It might be possible to calculate the financial cost of harm and recover that amount from the person causing it (such as through a tax on pollution or a payment for the use of a receiving environment). Alternatively, one could create regulations to prevent the harm from occurring in the first place (such as through identifying prohibited activities under the RMA), or to mitigate it to an acceptable level (such as through conditions placed on resource consents). In some cases, the components of the environment to which harm is being done could be privatised, which would in theory provide an incentive for the owners to protect their property from the impacts of others (such as through the creation of fisheries quota). We explore the use of property rights as a tool further in Chapter 8.



Stormwater outfall, Mangawhai

Multiple externalities exist in the marine environment, given that it is often the final recipient of pollution happening upstream in a catchment. Many impacts (such as the effects of contaminated stormwater on coastal habitats) are not priced or even recognised, let alone prevented. That is the case even where the effects of one commercial activity have a direct and measurable financial impact on others. For example, *E. coli* pollution of seawater requires shellfish harvesting to cease due to human health concerns. This means, for example, that mussel farmers in the Firth of Thames are unable to harvest after heavy rainfall due to potential pollution from dairy farms in the Hauraki Plains and oyster farms in the Bay of Islands were closed for eight years due to wastewater pollution.⁹ A system focused on preventing harm could address these kinds of anomalies. However, allocating proportional blame to particular individuals for their contribution to large systemic problems (eg runoff from roads or sediment from catchments), may prove very tricky in practice.

Despite potentially addressing such issues of concern, such a narrowly based system would not necessarily do all the things that some may expect of it. Government would not be in the business of driving particular outcomes or resource uses, or shaping people’s behaviours, except to prevent the harm that they cause. Should that really be the role of the system here? Aside from practical difficulties (how would one measure or monetise the true value of harm to something like a marine reserve or the extinction of a species?) there are deeper ethical issues at play.

A narrow scope for intervention could also prevent actions that might be desirable from a long-term societal perspective. For instance, some may think that the current distribution of marine resources is unfair and they need to be reallocated (not least in the context of the Tiriti o Waitangi, but also between different commercial fishers and the commercial and recreational sectors).¹⁰

A narrow approach may also tend towards short-term and reactive management – intervening only when problems become apparent. If we are just putting out fires by assessing and mitigating the harm from individual activities, cumulative effects may be hard to spot until it is too late to prevent poor outcomes. It also seems unlikely that proactive measures, like supporting the growth of a new seaweed farming sector or even the creation of a network of MPAs, could be justified as the internalisation of externalities. They are about much more than preventing or compensating for damage.

A relatively narrow rationale for having an oceans management system could be to internalise negative externalities – essentially, to prevent or make people pay for any harm they cause. Beyond that, intervention from the system would not be justified. As well as being difficult to implement in practice, this approach may not reflect what people expect a system to do in the future. Indeed, it does not fully account for the reasons the current system intervenes.



A future system's ability to intervene could be based on internalising externalities and addressing market failures.

Raewyn Peart



Shoreline restoration at Mangere, Manukau harbour

6.4 Broader rationales for intervention

Broader rationales for a future oceans management system are possible, and arguably desirable. One important rationale may be to pre-empt and resolve disputes between users or uses of the marine space, which may not always be about preventing (or compensating for) harm caused by one person to another. It could instead be about encouraging a fair allocation of value from their use (such as through coastal occupation charging or royalties), or achieving synergies between mutually beneficial activities by coordinating them (such as aquaculture and shellfish bed restoration; or MPAs and tourism). This is more about “planning” than it is about remedying market failures.

Moreover, although it is by no means as complex as on land,¹¹ there may also be a need to proactively provide for public goods and services at sea (eg safety and navigation infrastructure and public transport). The very concept of a “public good” might even evolve in the future to include things like offshore renewable energy facilities (eg tidal or wind energy), marine parks (akin to green spaces provided by councils on land), or ecological infrastructure (eg to filter water or sequester carbon). It may involve proactive ecological restoration initiatives, such as the reinstatement of wetlands to reduce runoff into the sea, or restoration of coastal habitat (eg the removal of the Mangere wastewater treatment ponds in the Manukau Harbour).

Further rationales for a future system might be to resolve disputes and ensure the provision of public goods. This could encompass marine infrastructure that markets may not provide in an efficient or equitable manner as well as restoration initiatives. These would go well beyond the prevention of harm or the internalisation of externalities.

One might go even further and say that the system has a legitimate role to play whenever it would be in the *public interest*. This would reflect the idea that authorities are active stewards or trustees of a “shared” resource or space, not just dispute resolvers or providers of specific services where the market has failed.¹²

One benefit of contemplating intervention where there is a public interest is that what the “public interest” means can change over time, and sometimes quite quickly. The value of agility can be seen in the Covid-19 response, where it was seen to be in the public interest to place strong controls

over freedom of movement. It was also seen in the recent relatively fast shift between actively encouraging offshore petroleum exploration and phasing it out. It allows the system to create a wide variety of future-focused strategies to enhance wellbeing and to move our collective human endeavour forwards, and not just mitigate the “bad stuff” in a spiral towards environmental mediocrity. The ability for the system to expand or contract at the margins may be especially valuable given the extent of challenges (ie environmental and climate change) the oceans are facing.

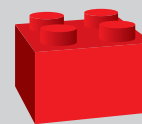
Of course, there are risks in contemplating a system that intervenes too much. Allowing interventions whenever the public interest is at stake creates less certainty and more room for argument. People can also have legitimate differences of opinion as to whether a public interest actually exists (especially when it clashes with private interests),¹³ and the “public” is not a uniform mass with a comprehensively defined set of interests. There are also questions as to whether policies designed to support (or at least

with the effect of supporting) private interests (such as the NES for marine aquaculture) fall within the category of the public interest. Some may see a risk in the government being able to “pick winners” when it comes to who (or what kinds of activities) can use the seabed or receive subsidies or other support (eg penalising offshore petroleum exploration while supporting offshore aquaculture or energy projects through fast track consenting or proactive spatial allocations). We need to be careful here:¹⁴

If we abandon a specific test based on externalities in favour of one that is based on a much more nebulous and evolutionary concept like the public interest, we recognise that it can be a slippery slope to unreasonably intrusive regulation.

Instead of the government, well-functioning markets could be relied on to determine what the public good is. After all, “it is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest”.¹⁵ Yet there is no ethical magic in the market either. Market participants are not inherently “bad” or greedy, but nor is a democratically elected government inherently incompetent or draconian.¹⁶ Each brings a different set of strengths and weaknesses, and a rich conversation about public power.

One of the broadest rationales for having an oceans management system would be to pursue the “public interest”. This could encompass a whole range of interventions that could evolve over time and when circumstances change.



A future system could be designed to intervene whenever the public interest is at stake, providing more flexibility, but also less certainty, about scope creep and overreach.

It is also important to consider a tikanga Māori perspective when thinking about the scope of a future system. While that will need to be determined by Māori themselves, some thoughts may be ventured. On the one hand, tikanga does not support fixed or artificial boundaries in management between the public and private spheres (eg through tests focused on externalities). It is also oriented towards the wellbeing of the community (rather than economic efficiency or individualised rights), which is in turn linked to the wellbeing of the environment through whanaungatanga/ kinship connection. Tikanga also values agility over time – it is responsive and

Raewyn Peart



Beach replenishment, Point Chevalier, Auckland

constantly changing as the environment shifts – suggesting that a system may need a broad rationale that can expand and contract.

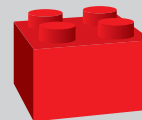
However, the rationale for intervention provided by tikanga is not exactly the same as a broad Western conception of the “public interest”, not least because tikanga has a lot to say about *who* gets to use or benefit from resources and how it is done. For example, a system that allocates coastal space on a first in time basis, or grants tourism concessions according to who can pay the most, may arguably fulfil the public interest but fall short of what tikanga and te Tiriti require.¹⁷ The most culturally significant use of the marine environment may not be the most “efficient” from an economic standpoint or the most protective from an environmental perspective. For example, it might be that an MPA managed according to local tikanga allows some customary and recreational harvest of fish, excludes commercial operators, and is subject to legally binding rāhui from time to time.

On the other hand, some might think tikanga supports a *narrow* scope for the system, because the system being talked about here is ultimately a “Western” one of formal laws, institutions and tools. From this perspective, the system has no business interfering with the Māori exercise of rangatiratanga and kaitiakitanga over resources or taonga, and its influence should be minimised.

In short, whether tikanga supports a broad or narrow rationale for the system may depend on whether the system itself is considered to be a constraint on tikanga (a negative intrusion), or rather a tool for Māori

to exercise tikanga (a positive enabler). This in turn may depend on the extent to which a future system can evolve to accept Māori as partners in decision-making and incorporate te ao Māori norms (see Chapter 7 on worldviews and Chapter 12 on institutional design) rather than something that just prevents Māori from doing things or paternalistically protects things that Māori value. What seems clear, however, is that a broad rationale for a future system cannot be based *only* on what the “public interest” demands. The interests of the public as a whole are not necessarily the interests of Māori safeguarded by te Tiriti, and a future system needs to be able to respond to both.

It is not immediately clear whether a tikanga perspective would support a broad or narrow scope for the system. Much may depend on whether that “system” integrates Māori perspectives and decision-making (which may legitimise a broad scope for intervention) or whether it is a Western construct operating in parallel to tikanga (which may suggest a narrower scope).



A future system could be able to intervene where necessary to meet te Tiriti o Waitangi obligations, even where those go beyond (or are different to) the public interest.

Reewyn Peart



Maketu Taiā lure

6.5 What is the right starting point?

Both broad and narrow rationales for a system have risks and benefits. But it is interesting to ponder in a first principles review why we tend to assume we need a justification for when the *system* should intervene. Instead, could we not flip that on its head by asking: when can we justify complete private freedom of action or the existence of private rights in *te moana*?

We could start with the premise that people are inherently part of a collective enterprise: a society or culture. From this view, the bestowal of many individual freedoms (including property rights) may well be good for society, but it is not assumed to be the natural way of things when it comes to how people interact with the marine environment. Unlike the strongly entrenched Western tradition on land, we still haven't privatised or even "tamed" the sea, and we may still be uncomfortable claiming that it is "ours". As Rousseau put it:¹⁸

The first person who, having enclosed a plot of land, took it into his head to say this is mine, and found people simple enough to believe him, was the true founder of civil society. What crimes, wars, murders, what miseries and horrors would the human race have been spared, had someone pulled up the stakes or filled in the ditch and cried out to his fellow men: 'Do not listen to this imposter. You are lost if you forget that the fruits of the earth belong to all and the earth to no one!'

On land, that ship has sailed (so to speak) for any but the most ardent socialist – it would be impossible to unpick private property rights even if one wanted to. At sea, however, such an approach might still be possible. There are many rights and interests, but there are few ditches or stakes. Indeed, *te moana*, and arguably the conceptual starting point for its management, is different to land in many ways. Some of these differences are legal, some are biophysical, and some are a matter of perception or tradition. But they suggest that a more expansive rationale for intervention and management in the marine space (eg the public interest) may be appropriate. For example:

- The arrangement of spatially fixed property rights in the marine area is substantially different than for those on land. There are few freehold land titles that extend under the territorial sea. Most of the area is designated "common marine and coastal area" which means it cannot be owned by the Crown or any person.¹⁹ Public rights of access to this area have been enshrined in law.²⁰ As most of the marine area is not "owned" by any party, greater public interest considerations come into

play than when managing activities undertaken on land. For example, the MACA Act recognises the importance of the marine and coastal area, for "its intrinsic worth" and "for the benefit, use and enjoyment of the public of New Zealand,"²¹ which is a statement that would be unthinkable with respect to private land.

- Due to this lack of ownership, the oceans management system must have a more active role in allocating rights to occupy and use space and resources than on land, since the Torrens system (governing private title) does not perform this role.
- The fundamentally interconnected nature of the marine environment means that it can be virtually impossible to confine the impacts of an activity to its immediate site. Flow-on effects often spread over wide areas and cumulate with multiple impacts from other places. This means that a project-by-project consenting approach (eg where impacts on neighbours are managed) is unlikely to be effective on its own without broader strategic planning, requiring a stronger role for public authorities.
- The sea is more of a "natural" environment than our land. Human activity has a less visible imprint at sea, which can be reflected in people's expectations about how it should look. So while farming on land is generally seen as a "picturesque" activity (rolling hills, fences and shelterbelts),²² there can be greater opposition to similar farming operations at sea (eg fish pens and buoys). Some might contend that this natural environment is more akin to the conservation estate, than to "built" or "developed" environments like cities or farms, therefore it requires an active public custodian.
- It is hard to see and understand what is going on below the waves, and marine management relies heavily on expert scientific measurement. While also important on land, it is particularly crucial that the oceans management system plays a proactive role in research and monitoring at sea, given that information is much harder and more expensive to obtain, and that different components (eg fish, habitats, climate change, water quality) are so interconnected.
- Aotearoa New Zealand does not have full sovereignty beyond the territorial sea, and "ownership" of the EEZ and extended continental shelf is limited. Although the country has broad jurisdiction over these areas, the ultimate basis for intervention rests on international law (quite different to on land and in the territorial sea). This suggests that public management is the starting point in these areas at least.

There are important contextual differences between marine and terrestrial environments. The oceans management system arguably needs to perform more of a proactive public trust function than the system on land, where it is hard to escape the sense that public intervention needs to be strongly justified against the status quo of personal liberty, market freedom and spatially defined property rights.

Because the marine space contains a wide variety of existing interests, a key question is: what is the extent to which a reformed system (no matter what its rationale) should be able to override or alter existing rights and interests?

6.6 Potential exceptions for intervention: Existing interests

The discussion above has been largely about what the *conceptual* rationale for having an oceans management system should be. Public interventions could be narrow (limited to the prevention of harm), or broad (whatever is best to achieve the public interest and the Tiriti obligations). However, reforms would not be starting from this blank slate. Therefore a more practically significant question might be: when should a new system be able to interfere with *existing* rights and interests? In other words, identifying a general rationale for intervention is a good starting point, but there might still be a need for exceptions.

Existing rights and interests in the marine context may be of a different nature to those on land, but they are still significant. Some private title over the seabed exists. Long-term resource consents have been granted. Customary title and protected customary rights are in the process of being recognised. Mining permits confer rights to take valuable petrochemicals and minerals. And fisheries quota provide the perpetual right to catch a proportion of the total allowable commercial catch (TACC). The ability to fish recreationally and access the sea are also often spoken of as “rights”.

Many of these existing interests could be impacted by a reformed system even if its general rationale for intervention was relatively narrow. For example, requiring externalities caused by trawling to be fully internalised (including the costs of benthic habitat damage) could significantly affect the value of some fishing quota. A broader rationale for intervention might see existing interests affected to an even greater extent, such as where the reallocation of a resource is deemed to be in the public interest, or necessary to meet the Tiriti obligations.

So should existing rights be protected, even if changing them would fall firmly within the scope of what the system might otherwise do? It is interesting that more targeted reform efforts in the past have been clear that interventions should *not unduly* affect existing rights. For example, this is often said in relation to the creation of new MPAs (where existing fishing rights are not to be undermined) and when it comes to creating new controls on land use (where existing use rights are protected under the RMA).²³

The first thing to note here is that not all interests are created equal. In particular, a distinction can be drawn between legal rights and expectations. Some things claimed as rights (such as the ability to continue clear-felling of pines, discharging wastewater into the sea, or bottom trawling) may really be expectations about the status quo continuing. Other interests, such as access to the moana for navigation and recreation, may be legally recognised as rights under international or domestic law.²⁴ Still other interests, such as fisheries quota holdings and resource consents, may be legally recognised rights and have significant monetary value.²⁵

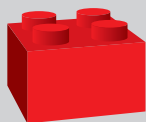
Some rights can even be regarded as *property*, which for the most part is sacrosanct in our capitalist society.²⁶ Fisheries quota is a form of property interest, not just a regulatory permit.²⁷ Other rights may have a different status due to being part of the Tiriti settlements, which imparts a quasi-constitutional status and importance not seen in other contexts. It raises the difficult issue of whether fisheries quota transferred to iwi as part of the fisheries the Tiriti settlement has a different status to quota purchased separately by Māori or owned by other parties.

One approach would be to allow new interventions that shift people's *expectations* but do not infringe their *rights*.²⁸ The system could attempt to treat *property* rights as sacrosanct but other rights as more flexible. For example, it might mean that property rights in quota could not be undermined²⁹ but controls *could* be placed through conditions on resource consents (which are, legally speaking, not a form of property). However, it is not always easy to distinguish “property” from other kinds of rights, as the concept is a surprisingly fluid one.³⁰ And some other forms of rights may be regarded as even *more* sacrosanct than property (eg human rights

and te Tiriti settlement rights).³¹ The system could allow some rights to be impacted while protecting others more absolutely.

Even if a right clearly exists, and it can continue to be exercised, it can be unclear whether an intervention is actually an *infringement* of that right or not. For example, while establishing no-take MPAs (or recreational fishing parks or mātaītai reserves) may be in the public interest, they may comprise large areas of productive fishing grounds (as these are often the areas that need the most protection) and so reduce the value of some quota. At what point does this reduction in value amount to the erosion or regulatory “taking” of a right? This is by no means clear.³² On land, the RMA’s solution to this dilemma is to invalidate planning controls that render property rights incapable of reasonable use.³³ That involves an assessment of context and degree. A future system could also take this approach when it comes to marine property rights (eg invalidate interventions that would permanently prohibit fishing in an entire quota management area).³⁴

One approach could be to allow reform to alter people’s “expectations”, but not erode their property “rights”. However, it may prove difficult to draw a line between the two, as it is not always clear when an expectation becomes a right, and when an intervention amounts to an erosion of that right.



A future system might be permitted to alter people’s expectations but not erode explicitly recognised property rights.

Alternatively, a future system could focus less on the nature of the right (eg *property* rights) and more on the reason for which a right is eroded or removed. For example, on land there is a much higher bar for the compulsory acquisition of a property (transferring ownership) than for the imposition of public interest planning controls (restricting what an owner can do). Similarly, rights conferred by consent under the RMA cannot be extinguished in order to transfer them to another person (which would be a derogation of grant) but can be curtailed to deal with unanticipated adverse effects on the environment.

Thus, a future system could allow both expectations *and* rights to be eroded (or even extinguished) so long as the purpose of doing so was

legitimate. That could, for example, extend to the situation where a control was necessary to achieve targets for the protection of biodiversity and threatened species (including through the creation of MPAs) but not the reallocation of resources to achieve a more equitable distribution of wealth.

Reforms could be permitted to alter any existing rights and interests as long as there is a legitimate public purpose for doing so. That might, for example, allow regulatory intervention to protect the environment but not to reallocate resources to a “better” use.



A future system could permit the erosion of property rights but only for particular reasons.



Kaiteriteri Beach

Raewyn Peart

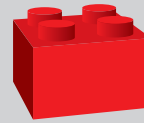
One could also make a distinction between different forms of property rights: those that are inherent features of our capitalist society (and cannot be extinguished), and those that have been brought into existence by the system (and are therefore amenable to change if they are no longer achieving their purpose). The QMS, for instance, was introduced not just because of the 1980s enthusiasm for privatisation per se, but also because it was seen as an effective way to achieve broader public policy goals around environmental sustainability and resource efficiency.³⁵ In that sense it is similar to the emissions trading scheme – it is a property-based tool.

But have some rights in the marine space become such an integral part of the fabric of society that, as with ownership of real estate on land, they should no longer be regarded as a tool to achieve public policy goals but rather a fundamental feature of capitalism that cannot realistically be undone? Consented rights under the RMA, although resembling property in many ways, are not clearly in this category. But private title to the seabed, small parcels of which exist due to historical reasons, more likely is.

If the QMS is still regarded as a tool within the system, to some the question may be a broader one: whether the system should continue to confer rights, not just whether it should be able to erode them. As explored in Chapter 8, some have floated alternatives to the QMS (although it is by no means clear that they would be *better*). And the door may be open to mechanisms by which coastal occupation rights (eg for aquaculture) could be moved to other sites, whether by mutual consent (where better conditions are found elsewhere) or by compulsion (where the impacts of inshore operations are no longer considered appropriate).

Perhaps the most useful way of thinking about the boundaries of a future system is that property rights themselves lie outside the system, and should not be extinguished except in the most exceptional of circumstances (as on land). But they *can* be linked to responsibilities. After all, a property right is not a freedom from obligation to society; it is simply a bundle of legal rights defensible against others.

Some rights – such as the Tiriti settlement rights or property rights that have become part of the fabric of capitalist society rather than a tool to achieve public interest outcomes – could be “off limits” for reform. However, it is not always clear when a right is within this category. A useful approach may be to not allow such rights to be extinguished, but to link them to public interest responsibilities.



A future system could permit the alteration of some property rights but not others.

Finally, we note that the biggest question when it comes to the defence of existing rights is usually not whether *some* public intervention is justified, but rather what *form* it takes. Command and control regulation is a very different way to influence behaviour than something more passive like an education campaign. It is often *regulatory* overreach that is the concern. Thus, for example, while it might be beyond the pale for the system to compulsorily acquire fisheries quota (or to effectively extinguish it by creating large no-take areas across an entire QMA), it might be more acceptable for the Crown to purchase quota within the market and retire it.³⁶ The provision of compensation or other assistance, in parallel, might also make some measures – even regulatory ones – more palatable. In short, debates about the proper scope of the system might be framed more usefully in terms of which *tools* should and should not be used, not whether the system should have any role at all. We discuss various tools in Chapters 8 to 10.

It may be that the system could legitimately interfere with existing rights and interests if “softer” mechanisms were used to do so instead of regulatory ones. Regulation may also be more palatable if accompanied by compensation or other assistance.



Commercial fishing vessels, Motueka

Raewyn Peart

6.7 Concluding comments

In this chapter we have considered what the outer boundaries of the system should be: where public intervention amounts to “overreach” and private choice or market freedom should be left to determine outcomes. The rationale for having a system can be interpreted narrowly (eg to prevent harm and provide public goods) or broadly (eg to achieve the public interest). The context in the marine environment may suggest that a broader scope for intervention is appropriate, although there remains a rich debate to be had, especially when it comes to the extent to which public intervention is able to alter or remove existing rights and interests. It may come down to which kinds of *tools* are used to intervene. Regulatory interference may, in some cases, be a step too far, and softer mechanisms may be seen as more legitimate.

Considering the rationale for having a system, and how it relates to existing interests, helps identify its outer boundaries – where it should not have a role. However, the discussion is equally useful in giving a sense of what specific roles a future system *should* be performing. There is a big difference between a system that *can* do things and a system that is *required* or *encouraged* to do them. We explored this area extensively in our previous work on resource management reform (and we refer readers

to our previous report for more detail),³⁷ where we identified seven core roles a future system could be expected to perform:

1. Setting environmental limits.
2. Making trade-offs above limits.
3. Providing public goods and services.
4. Pursuing positive outcomes.
5. Protecting the interests of mana whenua.
6. Allocating resources.
7. Resolving disputes.

It is important to note that these roles might look different in the marine context. Because the roles a system is expected to perform are closely linked to its purposes (for example, *why* environmental limits should be set in a particular place, or *why* we might allocate resources to some and not others), we explore them further in Chapter 7 when we look at what the objectives of a future system might be.

Summary of options for reform: The rationale for the system

- A future system’s ability to intervene could be narrow, based on internalising externalities or addressing other market failures.
- A future system could be designed to intervene whenever the public interest is at stake, providing more flexibility, but also less certainty, about scope creep and overreach.
- A future system could be able to intervene where necessary to meet the Tiriti o Waitangi obligations, even where those go beyond (or are different to) the public interest.
- A future system might be permitted to alter people’s expectations but not erode explicitly recognised property rights (eg quota).
- A future system could be allowed to erode property rights but only for particular reasons.
- A future system could be allowed to alter some property rights but not others.

Endnotes

- 1 This shift has occurred quite rapidly, given that the oceans were, until recently, seen largely as an inexhaustible resource basket and sink for waste.
- 2 If this is not addressed early in the reform process, opposing perspectives on what the system “is” can resurface later on in more specific situations. For example, in the terrestrial context the system cannot simply reallocate private land from one person to another, even if it would produce more equitable or sustainable outcomes. This is not just a question about the system’s objectives. It is more fundamental: the allocation of land is not considered to be within the scope of the resource management system at all.
- 3 For example, changing the purpose of the RMA/NBA to something like *te ora* or *te taiao*.
- 4 For example, proposals for new legislation to manage issues associated with carbon capture and storage.
- 5 For example, the response to Covid-19.
- 6 Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation Synthesis Report* (Environmental Defence Society, Auckland, December 2018) at 80; Greg Severinsen *Reform of the Resource Management System: A model for the future: Synthesis report* (Environmental Defence Society, Auckland, December 2019) at 49.
- 7 Or, more accurately, where a person bears the cost of another’s actions that he or she has not agreed to bear. A positive externality is where those receiving the benefits of an action do not pay for it (allowing free-riding), such as a ship in the vicinity of a lighthouse.
- 8 It is generally accepted that it is impractical and undesirable to internalise all adverse effects. For example, changes in plans do not trigger compensation to existing residents: see Resource Management Act 1991, s 85.
- 9 Raewyn Peart *Farming the sea* (Environmental Defence Society, Auckland, 2019) at 93.
- 10 See Chapters 2 and 3.
- 11 Where there is a need to provide network infrastructure like roads, water pipes, public transport as well as social infrastructure like libraries and some housing.
- 12 See Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation Synthesis Report* (Environmental Defence Society, Auckland, December 2018) at 85.
- 13 For example, retaining the natural amenity values associated with particular areas might be regarded as a public interest consideration, but could sometimes be regarded as *nimbyism* (protecting the value of private properties).
- 14 Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation Synthesis Report* (Environmental Defence Society, Auckland, December 2018) at 84.
- 15 Adam Smith *An inquiry into the nature and causes of the wealth of nations* (1776).
- 16 There are risks associated with both: see Catherine Knight *Beyond Manapouri: 50 years of environmental politics in New Zealand* (Canterbury University Press, Christchurch, 2018) for an exposition of the risks of excessive government management, and Richard Thaler and Cass Sunstein *Nudge: Improving decisions about health, wealth and happiness* (Penguin, 2009) on the risks of leaving private choices uninfluenced.
- 17 See *Ngāi Tai ki Tāmaki Tribal Trust v Minister of Conservation* [2018] NZSC 122.
- 18 Jean Jaques Rousseau *Discourse on inequality* (1755).
- 19 See Marine and Coastal Area (Takutai Moana) Act 2011, s 11.
- 20 There is a patchwork of other rights in the marine area, including over structures such as wharves, jetties and marinas and for activities such as aquaculture (which are authorised under fixed-term coastal permits under the RMA).
- 21 Marine and Coastal Area (Takutai Moana) Act 2011, s 4(2)(e).
- 22 Of course, opposition to farming can be for reasons other than amenity, and not all farming operations – notably those involving intensive winter grazing – are “picturesque”.
- 23 Although the Randerson Panel’s report has more recently floated the idea that existing use rights might need to be extinguished where needed to defend environmental limits or adapt to climate change.
- 24 Although expectations around access are not unfettered; for example, there can be exclusion to protect nesting birds, to address biosecurity risks, and to impose safety zones for petroleum mining.
- 25 Consents are in the nature of property rights even though, legally, they are not. See David Grinlinton “The nature of property rights in resource consents” (2007) 7 BRMB 37; Laura Fraser “Property rights in environmental management” (2008) 12 NZJEL 145; Barry Barton “The nature of resource consents” in *Environmental law: National issues intensive* (New Zealand Law Society, 2009).
- 26 For example, a fee simple estate in land.
- 27 See OECD *Using market mechanisms to manage fisheries: Smoothing the path* (OECD Publishing, 2006).
- 28 Whether it *should* shift expectations would still need to be justified (and there would be debates about compensation), but the point is that it is conceptually on the table as something the system *could* do.
- 29 It would not be clear what “undermined” meant. Effective extinguishment would be one line in the sand, but it is not clear whether any measure reducing the value of quota should be prevented. Value can already vary depending on market conditions and biophysical factors (eg collapse of a stock, fish moving due to climate change or habitat degradation) and no compensation is forthcoming for those things.
- 30 For example, some rights can exhibit features of property (eg tradeable consents) without *being* property, while property rights can be so heavily regulated that they start to resemble other forms of right. A property right is a general term used to describe a bundle of interests and rights people have that are generally tradeable in a market, but it is not a straightforward distinction; “implicit in a property right, generally, are all or some of the following rights: the right to use or enjoy the property, the right to exclude others, and the right to sell or give away”: see Australian Government “Definitions of property” (31 July 2015) <www.alrc.gov.au/publication/definitions-of-property>; Kenneth Palmer and others *New Zealand land law* (3rd ed, Thomson Reuters, New Zealand, 2017).
- 31 It might sound disingenuous to suggest that human rights could be altered by the system, but it might be a question of degree. For example, if the system were to give strong rights to nature, then these could conceivably clash with human rights.
- 32 This issue can be seen in the context of the proposed Rangitāhua/Kermadec Ocean Sanctuary. Here, proposed legislation would effectively set a catch limit to zero for the entire the QMA which surrounds the islands. We look at this in Chapter 7 in the context of principles (procedural justice).
- 33 See Resource Management Act 1991, s 85. That is quite different to where there is a desire to use land for a different *purpose* (or to extinguish a specific existing land use), in which case compensation is forthcoming through Public Works Act processes or on a willing seller/willing buyer basis. This can be seen in the government’s recent purchase of dairy farming land around Lake Horowhenua and conversion to wetland, Radio New Zealand “Bid to restore Lake Horowhenua with new wetland project” (27 May 2021) *RNZ* (online ed, 27 May 2021) <www.rnz.co.nz>
- 34 Overturning planning controls on land requires a high bar, and there are much stronger property rights in land (ownership) than in quota (a right to a proportion of a stock once sustainability measures are taken).
- 35 See Raewyn Peart *Voices from the Sea* (Environmental Defence Society, Auckland, 2018).
- 36 In tandem with proportionate reductions in the TACC.
- 37 Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation Synthesis Report* (Environmental Defence Society, Auckland, December 2018), ch 7.

7 Ethics, principles and objectives



Whangaroa harbour

7.1 Introduction

We concluded Chapter 6 by identifying seven distinct roles a future system might be expected to perform. For some of these, it is implicit what general outcomes are being sought. For example, the point of setting environmental limits is to protect the natural environment. What we are seeking by protecting the interests of *mana whenua* is, at least at a high level, self-evident. However, there is still a lot of room for debate. What *specifically* should environmental limits be seeking? To prevent ecosystem collapse, to prevent people being hospitalised by pollution, or to defend the *mauri* of a resource? And what are we seeking by allocating resources? Economic efficiency, social equity or environmental improvements? There is an even wider range of things the system might be seeking when it comes to making trade-offs or pursuing positive outcomes, ranging from general things, like “sustainability”, to quite specific things, like growing revenue from the aquaculture industry to \$3 billion by 2035.¹

In this chapter, we consider what we might want a future system to achieve, both generally and when performing its different roles. This involves looking at three things in turn: (1) what *ethics and worldviews* might underpin the system; (2) what legal and ethical *principles* could

operationalise those worldviews; and (3) what more specific *objectives* the system might have.

Why we might want to achieve something is just as important as *what* we want to achieve. That requires us to consider the ethics or worldviews underpinning the system. For example, seeking to safeguard the *mana* or *mauri* of the *moana* cannot be understood without engaging with the value system underpinning it (*te ao Māori*). And the ethical assumptions about *why* we might want MPAs can vary wildly between people and over time (eg scientific research, cultural connection, scenic values, biodiversity protection).² Worldviews and ethics need to be operationalised within a formal system of laws, and that can be done by developing legal and ethical *principles* such as various incarnations of “sustainability” and concepts like *kaitiakitanga*.

While principles are useful to guide decisions, it is also worth considering whether a future system would benefit from clearer, more directive and measurable *objectives*. It is one thing to say that the system should set environmental limits to reflect an eco-centric worldview, guided by principles like sustainability. It is quite another to say that the system must phase out all single use plastics by 2035, establish a 30 percent coverage of protected areas by 2030, or impose an immediate moratorium on deep sea mining.

Raewyn Peart



Boil up, Bay of Islands

7.2 Ethics and worldviews

Worldviews are about the basic ways in which we see ourselves in relation to our surroundings and the natural world. They are about what is right and what is wrong. We explored different worldviews in our previous work on resource management reform, but the topic is worth exploring further in the context of the marine environment. For example: why do people care so much about marine mammals like dolphins but not about other marine species? Is pollution prevention about human health and wellbeing, or the rights of ecosystems to thrive? Should living things have a dollar value when humans do not?³ Is our ethical obligation to nature simply to prevent extinctions, or does it go further than that? Is access to the oceans and its resources a “birth right” for all New Zealanders, or just those who can afford to pay (like the case for access to most land)? And what is the nature of our moral obligation to future generations? Below, we explore te ao Māori, welfare economics, anthropocentrism and ecocentrism.

Different worldviews seek to strike a balance between how people use/ impact the moana and how much they protect it. All require the benefits and costs of use and protection to be weighed, but built into the weighing process are inevitable value judgements that some benefits and costs are more significant than others.

None of this is about crunching numbers. Worldviews and ethics are really about storytelling. It is easy to see that in the context of te ao Māori, where oral tradition passes mātauranga down through the generations (see below). But it is no less true in Western and other traditions, where moral messages and narratives (eg the value of capitalism and markets and the centrality of human welfare) are often hidden within technocratic language. Neither science nor nature tells us what is right or wrong. It is something we tell ourselves. In our resource management project we said that:⁴

Both development and environmental health are thought of as “good”, so it makes sense that both underdevelopment and environmental degradation are thought of as “bad”. Yet one often must come at the expense of the other. This is different from an area like criminal ethics, where (despite arguments over definitions and exceptions) it is fairly simple to characterise crimes like murder as bad. There is no point at which there is too little murder.

Yet in the marine context the law is quite clear that too little death *can* be a bad thing; the concept of MSY is about harvesting natural fish stocks down significantly in order to shift the population dynamics (to produce lots of small, fast-growing fish rather than retaining older mature fish) for

human benefit. In that case, leaving too many fish in the sea can be seen as “waste”, because it lowers the overall stock “productivity”. That is not to suggest that maximising such natural yields is a wrong thing to do. It is simply to say that how we approach the life and death of species in the oceans is quite different to how we think about human life. Policy makers will need to consider which mix of worldviews should underpin a new generation of marine laws.

Different worldviews weigh the benefits and costs of use and protection of the oceans, but built into the weighing process are value judgements that some benefits and costs are more significant than others.

Te ao Māori

Te ao Māori is one way of seeing and living in the world, which has existed over centuries, incubated within an integrated social and cultural setting. It remains a powerful worldview amongst Māori in modern Aotearoa New Zealand, but it is not one that forms the foundations of our current oceans management system (even though components of it are present).⁵

Māori values are not homogenous. There is considerable diversity, just as there is within a “Western” worldview. That said, te ao Māori has strong common cultural roots. Hirini Moko Mead emphasised that “culture provides the general template of what Māori society was and is about. Through time the people developed systems that covered all aspects of life” led by the ancestors and then evolved through the generations down to contemporary Māori of today.⁶ All the activities that members of iwi, hapū and whānau engage in, is the ethical system and common law that is referred to as tikanga Māori.

Through the lens of te ao Māori, the environment is not seen as a collection of resources to exploit for human benefit, nor as a separate entity to protect; rather, people are seen as part of a cosmological system based on kinship, respect and reciprocity.⁷ Every aspect of corporeal and incorporeal life is connected. Dr Robert Joseph explained that:⁸

A traditional Māori cultural worldview ... was based on the Māori cosmogony (creation stories) that provided a blueprint for life setting down innumerable precedents by which communities were guided in the governance and regulation of their day-to-day existence. Māori worldviews generally acknowledged the natural order of living things

and the kaitiakitanga (stewardship) relationship to one another and to the environment. The overarching principle of balance underpinned all aspects of life and each person was an essential part of the collective. Māori worldviews are therefore ones of holism and physical and metaphysical realities where the past, the present and the future are forever interacting. The maintenance of the worldviews of life are dependent upon the maintenance of the culture and its many traditions, practices and rituals.

It has also been pointed out that the essence or philosophy that informs tikanga Māori is based on relational and genealogical connection to all facets of the environment:⁹

Whakapapa is not only a genealogical construct of who we are and where we are from, but it narrates our life through the people and places we come from. More importantly, it is a cultural tool used in connecting us to the environment which in turn, spiritually denotes a relationship to the atua (gods) who personify and represent these realms. Whakapapa therefore dictates our genealogical link back to our natural environment and therefore the atua that reside within these domains.

Māori atua exist as personifications of the natural world. [They] are derived from Māori mythology, theology, knowledge and history passed down as tradition through generations. The domains they represent are inherited by Māori and these environments become not only part of our culture, but part of our whakapapa.

Te moana has a central place in Māori worldviews. Māori have always been a seafaring people, tracing their histories back to Polynesia. The well-known origin story of Aotearoa sees the hero Maui catch the great fish of the North Island – te Ika a Maui – from his waka. According to some te ao Māori traditions, the oceans were the place from which life itself first appeared (according with Western scientific understanding). Te moana continues to have great significance, not just as a source of kai and resources, but as a powerful element in a tightly woven tapestry of existence. According to some:¹⁰

In the most well-known version of the Māori creation story, Tangaroa is the son of Papatūānuku, the earth mother, and Ranginui, the sky father. He is one of the 70 children who, when earth and sky were separated, went to live in the world that was created.

This is the story that tells us how the atua became the family entrusted to take care of specific areas of the environment. Oral tradition also says that

Tāne Mahuta was the one who created the female element from the clay of Papatūānuku, named Hineahuone. She then coupled with Tāne to produce the first human being, named Hinētītama, and she then coupled with Tāne to produce the first human being named Hinetitama. It is this whakapapa that connects/links and infuses Māori to the environment. Moreover:¹¹

In some genealogies human history is traced from fish to amphibian, before finally taking human form. Perhaps the most well-known expression of this idea can be found in the whakairo (wood carvings) which adorn meeting houses throughout the country. The bulbous heads of the carved ancestors, their three fingers and serpentine bodies indicate the belief that humankind had marine origins.

Other commentators have noted other oral traditions relevant to the Māori creation story:¹²

Tangaroa was one of the many children involved and saw the repercussions of Tāne separating Ranginui and Papatūānuku. This separation caused conflict between the atua, more specifically to Tāwhirimātea who resented the thought of separating their parents. Tāwhiri expresses his rage through his control over the weather and how it continues to beat down on the domains of his siblings who remained with Papatūānuku. Some of this reflected on Tangaroa as the rage caused a separation of the sea creatures as some fled to land and the others fled deep into the ocean.

Tangaroa has whakapapa to connect the waters that rain down on our mountains and down through our valleys, fresh waters that run through our land, water that nourishes our soil, to the waters that we consume and comprise 80% of our human body.¹³

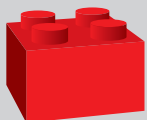
This account of atua linked to each other and to people through whakapapa – in tension and harmony – conceptualises the environment not as a series of separate domains and mapped boundaries, but rather as connected spheres, each with its own champion. In much Māori lore, the sea is something to be feared and respected – it takes on a human face and a human sense of injustice – not just a challenge to be conquered or a resource to be exploited.¹⁴ For Māori, marine protection is not about a preservationist, no-take approach.¹⁵ Nature is not conserved separately from humans, because what is important is maintaining relationships with the atua and tūpuna that are within. Failing to protect the mauri of the moana results in a diminishing of the mana (power, authority) of those responsible for its protection.

While the Māori worldview is a spiritual one, encapsulated in a rich oral storytelling tradition, it is also one that is translated into practice, and is ultimately designed to explain the world and guide human behaviour. Tikanga is central to the Māori outlook. Dr Joseph describes this as “values, principles, ethics or norms that determine appropriate conduct, the Māori way of doing things, and ways of doing and thinking held by Māori to be just and correct”.¹⁶ It is about *doing*, not just *explaining*. Further, Hirini Moko Mead has said of tikanga that:¹⁷

It is difficult to imagine any social situation where tikanga Māori has no place ... Tikanga Māori might be described as the Māori ethic ... Tika means “to be right” and thus tikanga Māori focusses on the correct way of doing things ... From this standpoint it is but a short step to seeing tikanga Māori generally as a normative system.

There is a question around whether te ao Māori is so intimately connected to Māori as a people that recognition of that world view would also need to bring with it a recognition of Māori stewardship of the oceans management system. Can we have a system where te ao Māori is administered by both Crown and Māori in partnership? Or a dual system whereby te ao Māori is administered or at least overseen by Māori? *He Puapua* has sparked an interesting and much broader-ranging debate in this area (see Chapter 4), and the ocean is one arena where it is particularly relevant. Power sharing is intimately related to a system founded at least partly in te ao Māori, and we explore institutional arrangements in Chapter 12.

Te ao Māori is a complex world view in which the moana plays an important role, and where the relationship between humans and nature is perceived and experienced as one of whakapapa and whanaungatanga rather than separation and hierarchy. It forms the normative foundation of tikanga – the right way of doing things. In many places the current system does not reflect te Māori.



The normative foundation of a future system could be based on te ao Māori and its concepts and principles.

A welfare economics view of the world

Anthropocentric worldviews put people at the centre of marine management. Within that broad church, some economic approaches construe human interests relatively narrowly – the overall aim is said to be the maximisation of social welfare.¹⁸ Social welfare in this context is generally seen as the product of two things: efficiency and equity, although the former is usually dominant:

an efficient allocation of resources means there is no way to increase one person’s welfare without reducing another person’s welfare...

but because many outcomes can be efficient, economic approaches generally determine which one is optimal by choosing the most equitable. Some may effectively see equity as unimportant (any efficient allocation is acceptable), but others may require that the welfare of those with the lowest welfare be enhanced.

Here, value and efficiency tend to be measured primarily in dollar figures. Traditionally, this has attracted the label of environmental economics, which has developed from the neoclassical school of economics.¹⁹

This ethic might be held by those who see the rationale for the oceans management system as one of internalising externalities (see Chapter 6). But even a system based on a broader rationale like the public interest might still adopt a worldview that seeks to maximise overall welfare (eg when allocating resources to their “best” use or when determining which aspects of the environment to enhance).²⁰ In short, this worldview might contemplate management measures necessary to achieve the public interest, but define it narrowly (as maximising overall welfare). That would be the overriding aim when the system was performing goals as diverse as setting limits, making trade-offs or allocating resources.

In the environmental context, the most famous (or infamous) expression of an economic approach is that attributed to Ronald Coase, in what has since become known as the Coase theorem.²¹ This echoes Hardin’s seminal work on the tragedy of the commons, which sees environmental problems through an economic lens, and stemming from market failures.²² In other words, if the negative impacts of a person’s resource use can be shared between many people, but its benefits can be individualised, any person acting rationally (in an economic sense) will cause overall environmental harm. Divergent solutions to this problem have been suggested: public regulation is one, taxation is another. Those writing in the tradition of the Coase theorem have proposed greater enclosure of resources – in other

words, the allocation of defined, divisible and defensible property rights.²³ We look at the use of property rights as an environmental management tool in Chapter 8.

Strict economic approaches to environmental ethics can be criticised in a number of ways.

- They do not allow the possibility that equity may be better enhanced by an economically inefficient outcome.²⁴ From one perspective, recreational fishing is very inefficient compared to commercial methods. But that does not necessarily mean the former has no or less value.
- They assume the existence of markets with no externalities or transaction costs,²⁵ and of economically rational actors.²⁶ Especially in the marine environment, we almost always have less than perfect knowledge of the environmental effects of an activity, and even in a world of full privatisation, markets may fail to internalise what are later realised to be the actual environmental costs of activities.²⁷ The continued collapse of fish stocks attests to that.

- Future generations cannot participate in markets, and so market transactions do not reflect their interests.
- Not all human values can be reduced to transactional or monetary terms. Human wellbeing derived from the environment is not just about services, and cannot necessarily be traded off against the same “dollar’s worth” of other forms of capital. There are also ethical questions about commodifying living parts of the environment.

Some innovative thinking has occurred in the field of environmental economics. The division between economists and ecocentrists (see further below) has also blurred, with many quite different framings now available for concepts like natural capital, ecosystem valuation, discounting, and green trading. Economically valuable ecological services are recognised, as opposed to just the protection of biodiversity. Many now recognise that the natural world has intrinsic value as well as its instrumental value as a source of resources. Kate Raworth’s concept of doughnut economics is a particularly prominent way in which neoclassical economic theory is being fundamentally transformed.²⁸

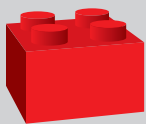


Recreational fishing, Wairau Bar

However environmental economics still has a methodological tendency to reduce the natural world to monetary or instrumental terms for ease of measurement, even if the end goal is broader than efficiency or an increase in human welfare. This is not to imply that such an approach is bad; imputing a monetary value to nature is much better than assuming it has no value at all or is “free” as a limitless sink for pollution. It is simply to say that there are other lenses through which we can think about what is right or wrong.

Generally speaking, there is a strong case that an economic approach to marine environmental matters is an inappropriate ethical foundation for the imposition of environmental limits or recognition of Te Tiriti o Waitangi, as it tends to treat different forms of “capital” (eg built and natural) as interchangeable. However, some may see it as more suitable to underpin other roles, such as making trade-offs (eg by undertaking cost-benefit analyses) or allocating resources (which should go to their most efficient use).

A narrow approach to economics sees the oceans as a source of instrumentally valued resources to be managed for the benefit of people. It seeks to measure value in monetary terms. That said, “green” approaches to economics have been developed in more recent times where the morality of decisions is not defined by solely economic factors.



The normative foundation of a future system could be based on a welfare economics view of the world, in which instrumental value is placed on the natural world as a collection of resources.

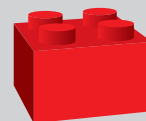
Anthropocentrism

An anthropocentric approach does not mean an economic lens needs to be used. What we want as consumers is not necessarily who we are as citizens of a society; we are moral agents, not rational automatons.²⁹ One pervasive line of thinking in Western thought, utilitarianism, has suggested a “good decision” is that which produces the most pleasure (utility or wellbeing) and the least pain for the most people – the greatest good for the greatest number.³⁰ The morality of this has been questioned over the centuries, as it can lead to great suffering for those in the minority and it is difficult to measure the pleasure of one against the pain of another.

Another approach focuses on deliberative democracy, whereby whether something is good or bad depends – to put it simply – on whether people say it is good or bad. A system designed on this basis would be flexible enough to accommodate shifting ethics. Indeed, some might argue that a bare bones framework like the EEZ Act already provides for that approach, and it has enabled a large degree of creative thinking (eg when it comes to the role of te Tiriti o Waitangi and a strict approach to pollution prevention).³¹ The RMA, in its broad concept of sustainable management, has also been capable of accommodating all sorts of changing values since 1991; te mana o te wai is a far cry from the more technocratic policy frameworks in first generation regional plans and national direction. And while something like the Marine Reserves Act admittedly allows very little normative flexibility (it is focused on research and not much else), the MACA Act provides much freedom for mana whenua to determine the values underpinning management in customary marine title areas.

Embracing the chaos and immeasurability of conflicting human values means that it is extremely important to get the process of decision-making right. Therefore, this kind of approach generally stresses the importance of participation, transparency, and rational discourse leading to decisions.³² Frameworks like the RMA reflect that strongly. Yet anthropocentrism is very much a concept serving human interests and measured by human values, which to some may no longer be an appropriate basis for a system. And weighing up such a large number of conflicting values, rather than focusing on a single metric like social welfare, can cause uncertainty, subjectivity and argument.

Anthropocentrism puts human interests at the forefront of decision-making, although that does not mean that value and morality need to be measured solely in economic terms. Some versions of anthropocentrism focus on the importance of democracy, which recognises that right and wrong can change according to the shifting values of society.



A future system could be based on anthropocentrism, where the multifaceted interests and values of society are put at the forefront of decisions.

Marine ecocentrism and biocentrism

In general terms, ecocentric approaches conceive of nature as a separate entity, with interests or rights that should be separately recognised and defended. Humans are not seen as inherently superior beings³³ but rather as part of a complex web of natural relationships that need to be respected.

Biocentric theories focus on the dignity and rights of the living world. Some animal rights theorists see the ability to feel physical or psychological pain as reflecting intrinsic value, giving rise to some interesting scientific debates about some fish species and their degree of consciousness or sentience.³⁴ Others have emphasised the wider value of individual plants and animals as centres of life capable, even without consciousness, of having some idea of their own good.³⁵

Broader nature-focused approaches extend rights and dignity to non-living aspects of the natural world, including geological features (eg rocky reefs).³⁶ Few ecocentric theories demand that people abandon all activities that exploit the natural world. To do so would be inconsistent with our own moral rights as part of an ecological community. Arguably, the current oceans management system contains elements of ecocentrism or biocentrism, in its recognition of animal rights and intrinsic value and providing strict protections for whales and dolphins.

A spotlight on valuing marine species

If one looks up while walking down the northern end of Wellington's Lambton Quay, one sign is particularly prominent: it has been posted by controversial businessman Sir Bob Jones, and reads "save the krill, kill the whales". One may assume it is there for shock value. But its author's point, he says, is genuine – to highlight the inordinate moral value that humans place on large creatures relative to small ones.³⁷ Whether or not one agrees with the specific message, it does highlight the interesting relationship between the different things we are trying to achieve through the oceans management system, not all of which are well defined or even deeply questioned.

Are we concerned about overall ecosystem health, and its productive capacity (food and other ecosystems service)? Preventing the extinction of threatened species? Preventing cruelty to animals? Protecting the lives of individual animals that we, as humans, tend to value above others for whatever reason? And why

do we do any of these things? For us, or for "nature"? A te ao Māori lens may point out that the compartmentalisation of such questions is itself the wrong approach. Aren't we instead concerned with the mauri and ora (wellbeing) of the moana, and the connected mana of the kaitiaki?

Some marine decision-making is based on the premise that it is an ethically bad thing to make a species extinct. That is arguably an ecocentric way of thinking; it is unlikely to undermine ecosystem services or impact on people's everyday lives if the fairy tern were no longer with us, just as we do not tend to notice any tangible effects from the demise of the moa. Yet it undeniably *matters*. A recent Cabinet paper has said, for example, that the rollout of cameras on boats will be "targeted to those fisheries that pose the greatest risk to protected species"³⁸ and a pilot project was focused on fishing in areas known to be frequented by the threatened Māui dolphin.

But is it wrong to kill a wild animal if the population of that species is healthy? We commonly kill wild fish, for example, and manage that harvest on the basis of MSY. We rarely frame that activity as a moral choice other than as an animal welfare issue (that the method of capture should be humane). But we treat marine mammals differently.

The Marine Mammals Protection Act makes it illegal to hunt (or otherwise harass) a marine mammal without a permit. The legislation followed that of the United States (the Marine Mammals Protection Act 1972) and came in the wake of the antiwhaling movement, which argued that whales had a right to life. The New Zealand Government has since been a strong supporter of the moratorium on whaling and has opposed the resumption of so-called scientific whaling by Japan.³⁹ Although this position has been partly based on the unsustainability of whaling, which decimated wild stocks, it also reflects the value placed on the intrinsic values of whales as well as abhorrence at the inhumane nature of whale harvesting practices.⁴⁰

Dolphins have been the subject of a more interesting legislative history in New Zealand. There have been regulations designed to protect individual animals (as opposed to a species in general). Pelorus Jack, the Risso's dolphin that followed ferries in Pelorus Sound during the late 1880s, prompted special regulations

under the Sea Fisheries Act 1894 that prohibited the harvest of Risso's dolphins in Cook Strait and were designed to protect them from hunting (which was legal at the time). In 1956, the Fisheries (Dolphin Protection) Regulations made it unlawful for anyone to take or molest a dolphin in the Hokianga Harbour, designed specifically to protect Opo, a bottlenose dolphin that had befriended humans there.⁴¹

Dolphins are highly intelligent animals capable of abstract thought and altruistic behaviour. Some have argued that dolphins have such impressive cognitive and social capabilities that they should be given a different legal status from other animals – that of a “non-human” person.⁴² So if they are highly intelligent creatures, capable of strong social bonding and suffering (recall the recent story of the orca mother who carried around the carcass of her dead calf for 17 days),⁴³ is it wrong to kill dolphins? The prohibition on (unpermitted) hunting in the Marine Mammals

Protection Act implies this is the case; it equally applies to threatened and non-threatened marine mammal species. But on the other hand, around 100 common dolphins are killed each year in trawl fisheries,⁴⁴ and this is enabled through a provision in the Act that provides a defence to prosecution if dolphin bycatch is reported. Common dolphins are not generally thought to be threatened. But equally, they are not regarded as a “pest” species where numbers need to be controlled. So if one accepts it is wrong to hunt them,⁴⁵ why is it okay for them to be entangled and killed in fishing nets?

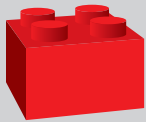
Going even further, why is it ethically defensible to carve out a special place for marine mammals like dolphins and whales, but to allow other non-threatened species to be killed? Arguably, our perception of marine mammals is less an ecocentric ethic than a projection of our anthropocentric bias; the more a creature behaves or thinks like us, the more it seems to matter.



Memorial to Pelorus Jack, French Pass

Ecocentrism can be criticised on a number of grounds. In practice, it must reflect human values, rather than the values of nature itself.⁴⁶ After all, limits to resource use are imposed by humans on humans. Fish can't speak, and we must attribute words to them. Furthermore, ecocentrism has little to say about thoroughly human concerns like the allocation of resources between people.

Generally speaking, ecocentric approaches conceive nature as a separate entity, with interests or rights that should be separately recognised and defended.



A future system could be based on ecocentrism, where nature is recognised as having intrinsic value alongside humans, not just as a set of resources or serving human needs.

Tanya Peart



Leather jacket, Cavalli Islands

A spotlight on ecosystem services and nature-based infrastructure

In Chapter 2, we touched upon the ecosystem services that our marine environment provides to people, from kai moana to nutrient cycling to carbon sequestration. Our point there was that when we protect the ability of the environment to perform those services we are still “using” it. Protection can be a use, and use can achieve protection; the distinction is not a binary one.

An interesting thing to ponder, however, is some people's tendency to think of these functions in an anthropocentric way – as *services* (also noting that this thinking is in contrast to te ao Māori/tikanga Māori). It is one thing to recognise the value of our oceans in providing us with sustenance, opportunities for recreation, and transport. However, there are numerous references in the literature to other “services” like the containment of sediment, the cycling of nutrients, the diffusion of pollutants, and the filtering of water. For example, some have pointed to the cleaning prowess of shellfish:⁴⁷

It has been estimated that with the historic coverage of mussel beds, the volume of the Firth [of Thames] could have been filtered in a single day. Current estimates are that remnant mussel beds take nearly two years to filter the same amount of water.

Those mussel beds – and a string of other habitats – would have done wonderful things for us if we had been more foresighted or ambitious in protecting them. But the reality is that, in 2022, we are expecting the natural world to perform an increasingly onerous range of services for us. The “water” that these mussels would now be required to filter is quite different to the water that existed 200 years ago, and much more polluted. Yet the message often seems to be that true problems only arise when the natural world is no longer capable of dealing with our rubbish – that we should hover somewhere around “maximum sustainable pollution” in the same way that in fishing we aim for “maximum sustainable yield”.

To put it another way, the danger is that we perpetuate the attitude of “if only we hadn't destroyed our ecosystem services, we wouldn't have to deal with the consequences of our increasingly unsustainable way of life”. Perhaps we need

to see the living world – including the mangroves, mussels and kelp forests that have to choke on our pollution – as having an existence that is about more than just servicing our needs and demands. The fact they are, increasingly, no longer doing so can be seen as nature’s last available form of protest, rather than just a breakdown of a human production line. These are living things that can lead a precarious existence and are fighting to survive.

Our outlook here has tangible consequences, not just for how we view the natural environment, but for the tools we use in a future system (see Chapter 8). For example, should we engineer entirely new kelp forests or mangroves in our estuaries where none existed before, to “put them to work” for us? Or should we seek to remove mangroves in an attempt to restore marine environments to their previous state (sandy beach), even if we lose the services they provide? Should we establish colonies of filter-feeding shellfish at stormwater outfalls, so that a continuation of excesses on land does not send our biogenic marine habitats over a tipping point? Should we instead focus on the cause of our pollution, and just leave the marine environment alone? Or is there an ethically sound middle ground to aim for?

The oceans provide people with many services, and pollution and other stressors can lead to those being threatened. A future system could strive to restore elements of the environment that provide those services, to reduce harm being felt by humans. That could arguably lead to a concept like “maximum sustainable pollution”.

7.3 Evaluating worldviews: a hybrid approach?

The foundations of the current oceans management system arguably rest on a tripartite marriage between economic rationalism, a strong sense of environmental activism, and a growing recognition of te Tiriti o Waitangi. Particularly in the marine space, there is an interesting mix of worldviews, where a highly instrumentalist view of fisheries exists alongside strong recognition of intrinsic value (eg for marine mammals) and a highly spiritual understanding of freshwater and its impact on estuaries (te mana o te wai). One statute, the RMA, has been described simply as “a complex set of values enshrined in law”.⁴⁸ Beyond that Act, there is even more ethical complexity.



Credit

Kelp forest, Mokohinau Islands

A future system is also unlikely to be founded upon any single worldview. That is the nature of a diverse society committed to liberal democracy, recognition of te Tiriti, and capitalism. Even people’s individual values are complex and hard to reduce to a simple list or label. The question is therefore not so much about which ethic(s) to adopt or reject, but more about the direction in which the system should head and where synergies can be found. There is no “right” answer when it comes to questions of right and wrong, only questions to ponder.

Yet they are worth pondering. While it would be unusual for a statute to proclaim its ethical underpinnings (eg to say it is “ecocentric” or “anthropocentric” in a purpose statement), a system that contains a jumble of inconsistent ethics is one likely to generate conflict, uncertainty and inefficiency (especially where incompatible ethics are split across different statutory frameworks). On the other hand, a system in which significant parts of the population cannot see their own basic outlooks reflected is unlikely to be durable. The normative integrity of the system therefore depends on how much normative unity there is in society.

Te ao Māori will need to stand alongside Western worldviews. Yet this shift poses challenges. Some may see anything less than full recognition of tikanga as fatally flawed, given that the Māori worldview is so interconnected, and may resist elements of it being “cherry-picked”. After all, tikanga is a normative system in its own right, not just a handful of principles to be added to a mix of others, and it may well be that “a culture cannot be understood fully in terms of the worldview of another”.⁴⁹ The existing system has struggled with such things. For example, while it is not the place of the oceans management system to resolve spiritual debates, spirituality is hard to divorce from the more concrete aspects of tikanga because the former is often used to explain the latter. Some may also object to the “co-opting” of Māori perspectives to apply to all New Zealanders, or resist the segregation of Māori values from Māori decision-makers.⁵⁰ On the other hand, we can build upon synergies to recognise that, for example, the environment is not comprised of resources, but rather taonga to be treasured; our institutions are not regulators and policy makers, but rather kaitiaki and stewards; and our water and living creatures are not there just to be used and owned, but have their own mana, mauri and dignity.

Raewyn Peart



Pou, Tāpapakanga regional park

A spotlight on te ao Māori and ecocentrism

There are potential nodes of agreement between te ao Māori and ecocentric. In the former, natural features are ancestors and relate to Māori people through ancestral relationships (whakapapa). Humans are not above nature; they are just one part of the intricate web of relationships that make up our world. Everything in this world is imbued with mauri, a life principle. It is an obligation for humans to uphold this mauri. The obligation stems from the principle of reciprocity: nature looks after us, thus we must look after it. This worldview is based on kinship, respect and reciprocity.⁵¹

The ecocentric perspective shares many values but comes from a Western point of view. It seeks to de-centre humanity from our assumed position of being above and in control of nature. Instead, it emphasises that we too are a part of nature, and that we rely on ecosystems to survive. It highlights that nature is inherently valuable, rather than only being valuable to the extent it serves human interests. For example, the Earth Law framework recognises that marine ecosystems: own themselves and have intrinsic value apart from human uses; have the right to perform all of their natural functions; and have the right to have a voice in decisions that may affect their health, including the right to legally defend themselves against damage (through human representation). The most significant differences between the ecocentric and te ao Māori perspectives is that the former does not include the metaphysical plane or account for the *relationship* between humans and the environment in the same way.

An interesting overlap between the ecocentric and Māori worldviews, is the idea of humans having a special obligation to advocate for nature, due to our sentience and language. For example, Christopher Stone, from an ecocentric perspective, notes that:⁵²

I do not think it too remote that we may come to regard the Earth, as some have suggested, as one organism, of which [humankind] is a functional part – the mind, perhaps: different from the rest of nature, but different as a man’s brain is from his lungs.

...

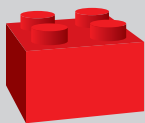
What is needed is a radical new theory or myth — felt as well as intellectualised — of man’s relationships to the rest of nature.

Comparably, Rev Māori Marsden, in explaining Māori cosmology, describes humankind as the “conscious mind” or “conscious awareness” of Papatūānuku.⁵³ This idea is what justifies the practice of human advocates in various legal personhood frameworks, whether humans are acting as a defender of basic rights in the court or are forming a management board to give effect to an entity’s interests.

It is also worth keeping in mind that the mix of ethics in an oceans management system may not be quite the same as on land, just as the ethics of the workplace can differ from those of the home. The longstanding possessive or defensive tradition of “my home is my castle” is a thoroughly terrestrial concept. People relate in different ways to the moana, which are arguably less about ownership, control, partition and exclusion as they are about respect, access and sharing. This might open the door to a system with a more ecocentric bent, or at least one focused less intensely on resources and profit.

Whether through failures of implementation or something more intrinsic, a largely Western, neoliberal and anthropocentric ethic has failed to prevent the problems described in Chapter 2. That does not mean we need to reject the ethic entirely, or replace it. But it means that we should be open to other ideas if they can orient our outlook in a way that is more likely to get us to where we want to go. After all, ethics are not just things we adopt and forget. They matter in practice. They affect what tools we deploy (eg rāhui, taxes, participatory planning or legal personhood), and the institutions we adopt (eg councils, a Tikanga Commission or marine guardians). They also shape the principles we use to guide decisions.

A future system will likely need to contain multiple worldviews to reflect Aotearoa New Zealand’s society. However, embracing synergies between ecocentrism and te ao Māori, within a plurality of ethics, may provide a positive direction of travel.



The normative basis of a future system could be one in which synergies between te ao Māori and ecocentrism are placed at the heart of decision-making.

7.4 Principles

Worldviews and ethics can be hard to pin down or encapsulate in words, and it is not immediately obvious how the discussion above might translate into the nuts and bolts of a new system. Yet an oceans management system needs specificity. One way to operationalise lofty ethics is through the creation or recognition of legal and ethical *principles*, such as sustainability, precaution, and ecosystem-based management. Many concepts, such as mauri (life force or essence), mana (honour and respect) and kaitiakitanga (caretaking/guardianship) are bound up in te ao Māori.⁵⁴ Below, we explore different principles that a future marine management system could adopt, drawing on the analysis in our resource management reform work. They include ecosystem-based management, sustainability, Māori-based principles, equity and justice, procedural justice, precaution and subsidiarity.

While some principles may produce binary choices, and different variations of principles are possible (eg “sustainable management” or “sustainable development”), the key thing to determine from a system design perspective will be how different principles interact with each other. Some principles can be regarded as substantive – they guide decision-makers in choices that will produce a tangible outcome. But equally important are procedural principles which guide *how* decisions are made.

Ecosystem-based management

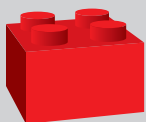
Ecosystem-based management is a particularly important principle in the context of our oceans, given how connected they are. In theory it is simple: it is a management approach that recognises the full array of interactions within an ecosystem, including humans, rather than considering single issues (eg pollution), species (eg fish), or ecosystem services (eg food production) in isolation.⁵⁵ It resembles integrated management, but with the core concern that integration needs to focus on ecosystems rather than other things (eg the connection between land use and infrastructure).

The National Science Challenge ‘Sustainable Seas – Te Komata o Te Tonga’ has produced a wealth of interdisciplinary research exploring the development and application of ecosystem-based management in New Zealand, defining it as “a holistic and inclusive way to manage marine environments and the competing uses for, demands on, and ways that New Zealanders value them.”⁵⁶ Many of the features of this unifying principle can in fact be described as principles in their own right,⁵⁷ and some are explored below.

Ecosystem-based management is not well reflected in the existing system. Part of that is due to it not being expressly included in key legislation (eg the Marine Reserves Act) and only being implicit in others (eg the RMA and Fisheries Act). But a larger reason is that legislative and institutional frameworks are siloed in ways that do not manage ecosystems in a holistic way. That is noticeable when it comes to a fragmented approach to MPAs and the lack of connection between the management of fisheries and impacts from land-based activities on fish habitats. Rationalising legislation (see Chapter 11), modernising its normative foundations (eg in purpose statements), and improving connections between statutory processes (eg fisheries and catchment planning) could help give life to the principle.⁵⁸

There are challenges, however. Some have said that ecosystem-based management is unlikely to be successful where “ownership” and power sharing arrangements have not yet been established for Māori.⁵⁹ There can also be tensions between a Western conception of ecosystem-based management and Māori worldviews that conceptualise the human-nature relationship in different ways, although there are areas of overlap.

Despite ecosystem-based management’s international popularity in recent years, there is still a lack of consensus on its definition. It may be of most use as a general framing that colours other principles, such as sustainability and ecological justice. It is also equally about how people work together as it is about the marine environment itself. Collaboration and strong relationships are key to managing things in an integrated way.⁶⁰



Ecosystem-based management could form a core principle in a future system, expanding upon that of integrated management observable in frameworks like the RMA.

Sustainability and related principles

Sustainability provides a framework within which other more detailed substantive principles can be applied. To some, it may be a principle that is essentially about trade-offs – balancing the value of resource use with the value of environmental protection in a way that can be maintained over time. To others, it might involve setting hard environmental limits to safeguard the interests of future generations and the ability of the natural environment to support life. “Sustainable development” is, by contrast, concerned not only with ensuring environmental protection in the face of development pressures, but also with active recognition of the need to drive socio-economic development. “Sustainable management”, in the New Zealand experience of the term, has a narrower tradition of protecting

the environment but not addressing issues of equity or active pursuit of resource development.

A future system could potentially embrace a more active principle of sustainability in which there are duties to undertake sustainable development, as has been done in Wales.⁶¹ That might include, for example, not just facilitating new uses of the marine and coastal space (eg through green infrastructure, renewable energy, regenerative aquaculture and restoration of ecosystems) but actively driving them. Indeed, one could recognise a “social and economic development” principle more broadly – to recognise that the system should place value on, and incentivise or mandate, some resource uses that are in the public interest. This is already explicit in the Crown Minerals Act and Fisheries Act, where utilisation is expressly recognised as a good thing. The exposure draft of the NBA indicates a broader take on sustainability through the new concept of *te ora nga o te taiao*, which is to be accompanied by a list of positive outcomes to be pursued (including the “protection and sustainable use” of the marine environment).⁶²

Other principles under the rubric of sustainability could include resilience and risk management. Resilience may be particularly important to ensure that a proactive approach is taken to minimising risks in the future (eg to guard against climate impacts like changing temperatures and storms on ecosystems, fish stocks and marine operations). Without it, the idea of sustainability may be too passive to meet the challenges of an unstable environment and rapid change, and may falsely assume we can control rather than being forced to respond to environmental change.⁶³



Recreational fishing, Raglan harbour

Raewyn Peart

A spotlight on sustainability and maximum sustainable yield

It is notable that the oceans management system adopts different versions of sustainability depending on what it is dealing with. Relatively minor differences are found between the principles underpinning the RMA and EEZ Act, which both focus on the concept of “sustainable management”. More notable is the purpose of the Fisheries Act, which is often described as “sustainable utilisation” (when what it really has is two potentially competing purposes).⁶⁴ First, there is an imperative to provide for the “utilisation” of a stock, which can be contrasted with the RMA’s softer requirement to “enable” people to provide for their own wellbeing, whether that is through resource utilisation or not. Secondly, there is the requirement to ensure “the potential of fisheries resources to meet the reasonably foreseeable needs of future generations” and to avoid, remedy or mitigate adverse effects of fishing on the aquatic environment, both concepts also reflected in the RMA and EEZ Act.

Fisheries could, of course, meet the needs of future generations if stocks were not fished *at all* by the current generation. Even a direction to utilise does not necessarily mean that stocks must be fished to the greatest extent possible. In fact the definition of “utilisation” in the Fisheries Act includes “conserving” as well as “using, enhancing and developing” fisheries resources. However, a conservation approach is not well reflected in other provisions.

When setting a TAC, the Minister generally seeks to maintain the stock at a level that can produce the “maximum sustainable yield” and to rebuild – or fish down – stocks to reach this Goldilocks objective.⁶⁵ This target partly stems from international law, where under UNCLOS, management measures must have the core focus of maintaining or restoring populations of harvested species at levels which can produce the MSY.⁶⁶ And states are required to grant surplus catch to other states if they cannot harvest the TAC set in any given year.⁶⁷

We have explored this principle and its history in previous work, noting that the underlying anthropocentric idea is that failing to fish down stocks is wasteful.⁶⁸ A strict theoretical approach to MSY has, however, proven untenable, due to assumptions about stocks and their environments that do not hold in the real world (eg annual variability in recruitment, growth rates, habitat change and

land-based impacts).⁶⁹ Other concepts, like maximum constant yield and current annual yield, have sought to iron out some flaws (eg avoiding the peaks and troughs of attempting to achieve MSY when stock sizes change year to year, by setting a more consistent and conservative TAC). The Fisheries Act direction has proven flexible enough to accommodate such innovations.

The direction in the Fisheries Act is to maintain stocks at or *above* a level that would achieve MSY, begging the question: what should justify TACs being set *above* this level? A precautionary buffer, or other value-based considerations? We might also take this further and ask how flexible the objectives of the Fisheries Act actually are, and the extent to which normative change away from MSY altogether could (if we wanted to) be achieved without legislative reform. The Act’s purpose is clearly much broader than this concept, extending to addressing adverse effects on the aquatic environment. In other words, sustainability in the sense of biological fish production (making sure enough fish are still there tomorrow and maximising their yield) by no means exhausts what the Act is there to do. It is equally about protecting the marine environment from the impacts of fishing, and not just from the removal of *fish*.

In 2009, the Supreme Court considered the application of MSY within the context of the purpose of the Fisheries Act in the *Kahawai* case, explaining that “the total allowable catch is the principal sustainability measure to maintain the fish stock at maximum sustainable yield or above it. But such maintenance does not exhaust sustainability or utilisation ends, which are concerned also with social, economic, and cultural well-being and the reasonably foreseeable needs of future generations.”⁷⁰

Even when it comes to stock management, the Act is broader than it might appear, and some have suggested that MSY is no longer an appropriate goal from an ethical standpoint even if technical challenges could be worked out.⁷¹ Even guidelines for the non-statutory Harvest Strategy Standard have recognised that “estimates of MSY-compatible points are only one of the inputs into the setting of targets. Other relevant inputs include economic, social, cultural and ecosystem considerations, which will generally result in targets equal to the MSY-compatible reference points or better.”⁷² However, specific policy on how

to operationalise these considerations has yet to emerge (see Chapter 8), and TAC setting is still treated as more of a technocratic exercise than an RMA-style value-based one despite the broad foundations of the Fisheries Act.

Some have described MSY-based catch limits as walking on a “razor edge” in an information poor environment.⁷³ While most assessed stocks are thought to be healthy,⁷⁴ this has not prevented collapses, the social and economic instability of closures, arguments about periods for rebuild, localised depletion and overfishing in practice.⁷⁵ It also remains that many stocks are not assessed (or assessed very infrequently), including ones that form an integral part of trophic webs.

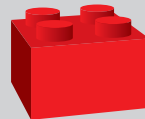
An objective based on a different principle, such as the retention of a representative range of age classes or abundance, could arguably avoid booms and busts, require less fishing effort (including for recreational and customary fishing), and improve the climate resilience of not only stocks but also the ecosystems of which they are a part. More specifically, some have suggested that management measures could aim to retain a higher proportion of original unfished biomass (eg no less than 50 percent) rather than seeking to maximise long-term yield per se.⁷⁶

Indeed, the Fisheries Act does not *always* require TACs to be set to achieve MSY. That includes for highly migratory species and – notably – where it is not possible to estimate it due to the biological characteristics of the species. Although a stock has to be explicitly included in a schedule to the Act for this specific exception to apply, it is interesting to consider the fact that TACs are frequently rolled over year on year in the absence of new information. Should this absence of new information, in light of the precautionary principle, effectively mean that it is not really possible to estimate MSY? Should stocks for which assessments are out of date or uncertain (or have never been undertaken) therefore be automatically subject to an obligation to set a TAC in a more cautious, or at least more nuanced, manner?⁷⁷

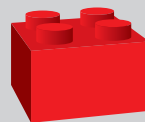
Finally, if the Fisheries Act allows consideration of broad social, cultural and economic factors – as highlighted by the Supreme Court – that begs the question as to whether the concept of sustainable utilisation is really that different from that of sustainable management under the RMA and EEZ Act. Indeed,

sustainable management was originally mooted as the purpose of the Fisheries Act.⁷⁸ The two concepts may in fact be converging, given the increasing focus on achieving “utilisation” outcomes for some things (such as urban land) under the RMA and a proposed focus on marine use as one outcome sought under the NBA.⁷⁹ That, in turn, begs the question whether continued statutory silos are justified for fishing and other aspects of marine management (see Chapter 11).

Sustainable management, in the New Zealand experience of the term, has a reasonably narrow focus of protecting the environment. It seeks only to enable socioeconomic wellbeing, not to drive it. Sustainable utilisation in the context of fisheries is broader, seeking to optimise the benefits of resource use.



Sustainable management could be recast as a broader concept of sustainability (eg *te oranga o te taiao*, or *te mana o te moana*), potentially embracing the social and economic dimensions of resource use and protection.



The principle at the heart of fisheries management could be reframed from one of sustainable utilisation to one more like sustainable management or *te oranga o te taiao* at the core of frameworks like the RMA/NBA.

Māori-based principles

Māori worldviews incorporate not just an ethical and relational understanding of the marine environment, but also various values and principles embedded in tikanga. The central Māori idea is often kaitiakitanga (stewardship, see spotlight below), but other important concepts are mauri (life-force or essence) and mātauranga Māori. This is more than just the knowledge of scientific facts, and it may be said to encompass broader ideas like wisdom (having an ethical and spiritual component – knowing what *ought* to be done) and systems of knowing. A future system will need to provide recognition, not only for these

concepts, but also for the ability of Māori to exercise them (see Chapter 12). Other important values relevant to marine management include the following.⁸⁰

- Whanaungatanga – “the centrality of relationships to Māori life”;
- Manaakitanga (and kaitiakitanga) – “nurturing relationships, looking after people, and being very careful how others are treated” and an ethic of guardianship;
- Mana – “the importance of spiritually sanctioned authority and the limits on Māori leadership”;
- Tapu/noa – “respect for the spiritual character of all things”;
- Utu – “the principle of balance and reciprocity”.

These values are intertwined with intangible or spiritual relationships as an absolute foundation to Māori society as well as the key institutions of te ao Māori.⁸¹ Dr Robert Joseph has added the concepts of koha (gift exchange); aroha (charity and generosity); and hau (respect for the vital essence of a person, place or object).⁸² Tikanga is also bound up with customary rights and practices, including with respect to the use of marine areas and the cultural harvest of marine species. In other words, Māori values concerning the environment do not make a binary distinction between use and protection. Instead, it is about mediating a relationship through connection with resources.

There are general concepts of tikanga that Māori embrace, and these could be used to anchor a future oceans management system. However, pinning down such concepts or defining them in a Western framework of formal legal mechanisms like legislation, regulation and institutions can prove challenging. For example, commentators have pointed out the challenge of defining tikanga Māori through a Western judicial system:

metaphysical concepts do not fit well within this objective framework, which depends on the presence of physical facts that can be quantified by science in order to render them more or less probative...⁸³

there is danger in assigning a Pākehā term to a Māori concept, as it isolates that concept from the Māori worldview it is born from.⁸⁴

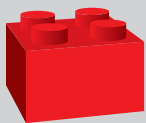
A spotlight on kaitiakitanga

Attempts to pin down complex ethical concepts, like kaitiakitanga, in bite sized statutory provisions have fallen short. For instance, the former Aquaculture Steering Group described kaitiakitanga as having the following elements (in the context of aquaculture reform), noting that it is wider and more complex than existing legal definition:⁸⁵

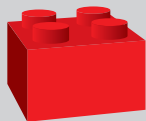
- founded in whakapapa – the relationship between everything and everybody in the natural world – there is no distinction between people and their environment
- a set of inalienable responsibilities, duties and obligations that are not able to be delegated or abrogated
- a web of obligations: to the taonga, to the atua and to ourselves and our uri. Kaitiaki have a responsibility to provide for everyone and ensure everyone benefits
- independent of “ownership” in a European sense
- seamless and all encompassing – making no distinction between moana and whenua
- expressed in ways that are appropriate to the place and to the circumstances
- given practical effect by exercising control over access to resources and sharing the benefits of the use of those resources (ie it has a strong social dimension that “environmentalism” under the RMA does not)
- enabled through rangatiratanga, which includes the authority that is needed to control access to and use of resources, and to determine how the benefits will be shared.

Further challenges arise with the interpretation of Māori terms within a statute, and the question of who interprets them. This issue is playing out in resource management reforms, in that it is unclear who will get to interpret the broad and novel concept of “te oranga o te taiao”.⁸⁶ Some have criticised the inclusion of te ao Māori concepts in legislation as a way to “co-opt” Māori values into the political process without corresponding Māori involvement.⁸⁷

Alongside concepts central to te ao Māori, a separate set of principles relating to te Tiriti o Waitangi have evolved in the courts and have become increasingly important as “part of the fabric of Aotearoa New Zealand law”.⁸⁸ There is a rich history of jurisprudence here, which other writers have laid out at length.⁸⁹ In all legislation, the Treaty must be considered as an aid to statutory interpretation.⁹⁰ More specific principles that will need to inform a future system include a duty on both Māori and the Crown to act reasonably and in good faith (including a duty to consult);⁹¹ the active protection of Māori interests by the Crown;⁹² the making of informed decisions by the Crown; the remediation of past grievances;⁹³ and the right of the Crown to govern by pursuing its policies in the interests of the whole community. The Waitangi Tribunal has also identified an underlying principle of reciprocity.



A future system could seek to give effect to the principles of te Tiriti o Waitangi that have been developed in the courts, or recognise and adhere to te Tiriti itself.



The normative core of a future system could be based on te ao Māori concepts such as kaitiakitanga, mana and mauri.

Equity and justice

Principles based on justice and equity go beyond the concerns of overall environmental sustainability. They are about fairness, and the distribution of costs and benefits of resource use and protection. We explored these principles in more depth in the project’s working paper.

Distributional equity (sometimes referred to as intragenerational equity) is about making sure that the benefit of resource use rights are distributed in an equitable way.⁹⁴ For that reason, it is intimately related to the system’s allocative role. However, it is not just about allocating resources themselves, but also distributing the benefits that flow *from* resource use and protection.

Within Aotearoa New Zealand’s current system, the concept of distributional equity has been fairly weak.⁹⁵ For instance, the concept of sustainable development promoted in the Brundtland report⁹⁶ was intentionally avoided in the RMA due to its association with the distribution of wealth and rights to socio-economic development.⁹⁷ As such, there are

few allocative principles to be found in the RMA. Under the Fisheries Act, after the initial allocation of quota, the distribution of commercial rights to fish is left to the market.

Questions about distributional equity abound in the context of management of a shared space like the oceans. Is it equitable, for instance, that the allocation of coastal space is still largely achieved through a reactive, first-in-first-served process under the RMA?⁹⁸ If not, who should receive these “rights” and on what basis (and for what activities)? Should the market decide, or should that be the job of a well-intentioned public authority? Should communities and their representatives get a say? And should such rights be given away for free (on a cost recovery basis), or should there be a return to the public and Māori (by imposing a resource rental or koha)?

Furthermore, is it fair that the grant of new aquaculture rights is, essentially, dependent on not having an undue adverse effect on wild fishing interests?⁹⁹ And is it fair that, albeit in a fairly unconscious fashion, the interests of some fishers, aquaculture proponents and recreationalists are effectively subservient to the “rights” of landowners who discharge nutrients and sediments into harbours, impacting the productivity of the marine environment? And finally, is it fair that the financial benefits of harvesting wild fish – a common resource – accrue to quota holders without a portion being returned to the public through a tax or resource rental? (On a deeper level, does society still even regard fish as a “common” resource of New Zealanders, or is it rather a “shared” resource between commercial, customary and recreational fishers?)

Similarly, if one accepts that the public *should* receive some financial benefit from the use of a public resource one can also ask whether it would be fairest to characterise that as a cost recovery levy type arrangement, a tax, a koha, or a resource rental, and what such revenue should be used for (eg marine conservation efforts, investing in the development of a fishery, assisting kaitiaki, or a general pot of government money). All of these questions are far from settled in the marine context.



Distributional equity or intra-generational equity could be expressly recognised as a principle in a future system, particularly to guide decisions about allocation.

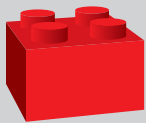
Environmental justice is about who bears the *cost* of environmental degradation. The principle⁹⁷ is closely related to indigenous environmental

justice, which, in Aotearoa New Zealand, is often framed around obligations and redress under te Tiriti o Waitangi.¹⁰⁰ It is not about protecting the environment per se, only about the ways in which the costs and benefits arising from use are distributed among people.

At present, a lot of the environmental costs of fishing, land-based discharges and other activities are borne disproportionately by New Zealanders as a whole. Coastal communities and Māori – many of whom are advocating for greater involvement in decision-making around fisheries and marine protection – are particularly impacted by the damage that occurs in their watery backyards.

For example, it is arguably unjust that some people in Aotearoa New Zealand cannot use and enjoy their coastal environment (at least without the risk of illness) because of nutrient discharges from land-based activities, chemical contamination from stormwater (much of the impacts which remain unknown), microplastic and other waste, or discharges from public wastewater systems. Because of urban growth pressures and historical infrastructure underinvestment in some urban parts of Aotearoa New Zealand, these impacts are not felt evenly across the country.¹⁰¹ To Māori, this harm has a spiritual or metaphysical component. And fishers (whether customary, recreational or commercial) are impacted disproportionately by contaminants entering the sea from land-based activities.

Environmental justice and distributional equity seek to distribute the costs and benefits of resource use and protection between groups in present-day society, according to equity or sensitivity to harm.



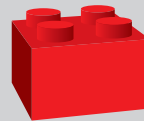
The principle of environmental justice could be strengthened in a future system, reflecting a broader understanding of the social elements of sustainability.

Ecological justice sees the natural world as an actor within, not an object outside, the human community of justice.¹⁰² The inclusion of humans as part of the environment aligns with te ao Māori (eg in oral traditions like the creation story of Ranginui and Papatūānuku). The concept is not unfamiliar to the existing system – the existing prohibition on hunting marine mammals is not just because some are threatened, but also because hunting them is seen as the “wrong” thing to do (see the spotlight earlier).

Current laws see dolphins, whales, seals and sea lions as different or special, and deserving of a kind of justice closer to that which humans enjoy.¹⁰³

But if we took the concept further, should society build institutions that give the oceans a voice of their own? Can this build on the innovative legal personhood developed as part of the settlement processes for Te Urewera and Te Awa Tupua/Whanganui River,¹⁰⁴ and what would be the challenges in giving the oceans as a whole legal personhood (eg through recognition as Tangaroa or Hinemoana, or concepts like te mana o te moana)? Instead of a resource rental going back into the public purse, should that be treated as “payment” or koha to nature for its services (or compensation for past harm) and be invested in regeneration projects? We explore legal personhood in Chapter 8.

The principle of ecological justice sees the natural world as an actor within, not an object outside, the human community of justice. This has implications for our choice of tools, as well as institutional arrangements – including the idea of conferring legal personhood on aspects of the environment.



There could be express recognition of ecological justice in a future system, embracing an ecocentric ethic and welcoming nature into human systems of justice.



Raewyn Peart

Hector's dolphins, Akaroa harbour

The principle of intergenerational equity is about the relative value we give to the interests of current and future generations.¹⁰⁵ It tells us that the latter should be recognised and safeguarded to at least some extent.¹⁰⁶ It is a morally charged obligation to future generations to act prudently; a direction not to consider cumulative, long-term effects as inconsequential;¹⁰⁷ and an exhortation to live on the dividends of, rather than erode, our natural capital.¹⁰⁸ Edith Brown Weiss has identified three key components in this concept: conserving the diversity of our resource base; maintaining the quality of our planet; and providing equitable access to our legacy.¹⁰⁹ It invites into the system of justice those who are not yet born.

But different worldviews can give a different flavour to the principle; te ao Māori approaches future generations as a continuity between atua, ancestors and mokopuna, from the perspective of whakapapa. The appropriate Māori term may be taonga tuku iho, meaning a gift passed down through the generations.¹¹⁰ Ecocentrism looks at it from the perspective of future generations of *nature*.

In particular, intergenerational equity may point to the need to actively *enhance* the marine environment to restore its productive potential where it has been degraded (or where people have benefited from its past degradation), and to set firm environmental limits to prevent (at a very minimum) marine ecosystem collapse and exceeding ecological tipping points.

Intergenerational equity is about maintaining the ability of current people to meet their needs while not compromising the needs of future generations. However, what the needs and interests of future generations are with respect to the oceans is not always clear.

Intergenerational equity could be strengthened in a future system by defining more specifically what the relative interests of current and future generations are, including with respect to restoring, enhancing and developing the marine space.

Procedural justice

The literature generally draws a distinction between issues of substantive justice and procedural justice.¹¹¹ Even if an outcome is fair, it does not mean that the process to get there has been. The significance of this has been seen in the case of Rangitāhua/Kermadec Islands, where the substance of a proposal for protection is arguably less of an issue than the way in which (and by whom) the proposal has been developed and communicated (see the spotlight below).¹¹²

The Waitangi Tribunal has also been scathing about procedural justice for Māori under the RMA, which was “seen as a beacon of hope for Māori ... Nearly 20 years after the RMA was enacted, it is fair to say that the legislation has delivered Māori scarcely a shadow of its original promise.”¹¹³

Raewyn Peart



Recreational fishing, Firth of Thames

The same can be said of the EEZ Act. The MACA Act at least provides an opportunity for statutory processes to be coloured more by tikanga, but there have been some criticisms that Western style courts are still responsible for conferring rights and resolving disputes.

Procedural justice is also closely connected to what we might call the “participatory” principle: who gets to be notified and involved in processes leading to key decisions, and the importance of deliberative democracy. Wide participation in oceans management decision-making allows choices to be informed by local knowledge and the values of communities, and to provide catharsis for genuinely held views.¹¹⁴ The principle has generally operated on the assumption that people can participate to the extent that their interests are affected.¹¹⁵

Broad participatory rights are particularly noticeable when producing plans, policy statements and regulatory tools that are values-based. They are more targeted when they only involve impacts on defined interests (eg property rights).¹¹⁶ As Barton and colleagues have observed, robust participatory rights at least under the RMA “reflect a social consensus that goes back long before 1991”.¹¹⁷ That is particularly relevant in the marine space, where there are fewer fixed private property rights and arguably a greater “public” interest in management. Everyone is a stakeholder, not just those who use the marine area directly. That has implications for the fisheries system, where the provision and use of information in stock assessments, fisheries planning and sustainability measures is focused on the science of fish stocks rather than the values of communities or mātauranga Māori.¹¹⁸

Mana whenua involvement across the whole system is an important end in its own right under te Tiriti o Waitangi, separate to broader notions of public participation.¹¹⁹ It is also concerned with the sharing of power and institutional arrangements (see Chapter 12), not just how Māori are consulted.

That said, participation cannot be absolute, and needs careful constraints. It can be costly and lead to delays in achieving urgent outcomes. In other words, what is procedurally just might be unjust when it comes to the substantive results. That has arguably been the case in the past when it comes to the delays faced in protections for the Māui dolphin due to litigation. But procedural justice goes to other system design features too, not just participation. It supports broad access, and openness, to information (including mātauranga Māori),¹²⁰ as well as access to judicial redress for breaches of the law or improper use of public powers.

A spotlight on the proposed Rangitāhua/Kermadec Ocean Sanctuary

The lack of a clear framework for MPAs beyond the coastal marine area, has resulted in ad hoc and hotly contested mechanisms for creating protections on a case by case basis, which can have significant implications for the fairness of the process. Nowhere is this more obvious than in the context of the proposed Rangitāhua/Kermadec Islands Ocean Sanctuary. On 29 September 2015, at the United Nations General Assembly in New York, Prime Minister John Key announced that Aotearoa New Zealand would create an oceans sanctuary in the EEZ around the islands. At 620,000 km², and twice the area of the country's landmass, this was to be “one of the world's largest and most significant fully protected ocean areas”.¹²¹ The area is renowned for its high biodiversity, with 32 percent of all fish species known in Aotearoa New Zealand being from the region. The Kermadec Islands themselves are a nature reserve managed by the Department of Conservation. A marine reserve protecting the territorial sea surrounding the islands was put in place in 1990. In addition, a benthic protection area established under the Fisheries Act in 2007 protects the EEZ around the islands from bottom impacting fishing methods. Ngāti Kuri and Te Aupōuri have mana whenua status over the area.

The announcement of the Sanctuary followed a long campaign, beginning in 2008, led by the USA-based Pew Foundation and supported by WWF New Zealand and Forest and Bird. The Kermadec Islands had been one of nine focus areas worldwide supported by Pew as part of its Global Ocean Legacy Project. This aimed to establish the world's first generation of great marine parks, with others in places such as the Pitcairn Islands, Easter Island and Palau.¹²² The departmental disclosure statement for the Bill indicated that the decision to create the sanctuary was largely informed by a number of reports prepared by the Pew Foundation.¹²³

The National-led Government's decision to create the sanctuary was kept secret until just before the United Nations announcement. Key affected parties such as Māori fisheries trust Te Ohu Kaimoana, Ngāti Kuri, Te Aupōuri, deep sea mining company Nautilus Minerals NZ Limited and the Pew Foundation were only informed by telephone the night prior to the announcement.¹²⁴

The Kermadec Ocean Sanctuary Bill was introduced into Parliament on 8 March 2016, with its first reading on 15 March when it was referred to the Local Government and Environment Select Committee. The purpose of the Bill was to “preserve the Kermadec_Ocean Sanctuary in its natural state”.¹²⁵ Shortly afterwards, Te Ohu Kaimoana announced that it would be launching judicial review proceedings against the Government. This was soon followed by the New Zealand Fishing Industry Association which also launched proceedings. Meanwhile public submissions were sought on the Bill and the Select Committee reported back on 22 July 2016 with some minor recommended changes. The legal proceedings are currently stayed pending passage of the Bill through Parliament.¹²⁶ The Bill is stalled while the parties seek a negotiated settlement and is still awaiting its second reading.

The legal challenges against the Bill raise three key allegations:¹²⁷

1. The Bill effectively confiscates fisheries quota. The legislation would set the TAC (and also the TACC, which cannot legally exceed the TAC), for the QMA which surrounds the islands, to zero.¹²⁸
2. The establishment of the Sanctuary is a breach of the Crown’s duty of good faith to Māori (through the failure to undertake fully informed consultation, and to proceed without consent of Te Ohu Kaimoana or iwi and without compensation).
3. The actions of the Crown are contrary to the 1992 Māori fisheries settlement.

The situation is a complex one. The quota rights in question have never been exercised, as there is currently no fishery at the Kermadec Islands.¹²⁹ However, all the quota that has been issued by the Crown so far in the area (apart from for migratory species which can also be caught elsewhere) was provided to Māori as part of the Treaty fisheries settlement.¹³⁰ Te Ohu Kaimoana has argued that the proposed measures undermine not just property rights per se, but also te Tiriti rights under the fisheries settlement by unilaterally changing the redress provided after the fact. This is through reducing the value of the quota held by Māori in FMA10 and also undermining the ability of Māori to exercise rangatiratanga through managing and utilising the fish stock.¹³¹

Te Ohu Kaimoana’s claims have yet to be determined by the Courts, and this seems unlikely to occur in the future, due to the Crown’s focus on negotiating a settlement to the proceedings. The controversy over the Sanctuary may have had a chilling effect on other marine protection initiatives, including the development of new MPA legislation. This has yet to progress despite the release of a discussion document on a new Marine Protected Areas Act in January 2016 by the National-led government.¹³² Nevertheless, both a legislated solution to the Rangitāhua/Kermadec Sanctuary, and to MPA legislation more generally, still appear to be on the table for the present government.

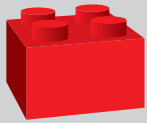
The Kermadec’s experience is a cautionary tale about how the reform process is managed, but also a reminder that a continued ad hoc approach to marine issues reflects a system that does not deal with issues of procedural fairness and justice in a coherent or effective way. There is no transparent standardised process provided for Māori or stakeholder engagement,¹³³ other than the select committee process to review new legislation. There is no predictable framing for what the purpose of bespoke legislation would be, including Māori principles, or a consistent approach to how customary or commercial rights are to be treated.



Te Whanganui-A-Hei (Cathedral Cove) marine reserve

Raewyn Peart

Procedural justice, which is closely linked to participatory rights, is as important as the justice of substantive outcomes. In particular, the involvement of *mana whenua* can be regarded as an important element of indigenous justice in its own right, not just a means to an end.



A principle of procedural justice could be included or reflected more strongly in a future system, outlining common elements of all processes to ensure they are fair, including for *mana whenua*.

Precaution

The precautionary principle tells us to take care where we face environmental risk or uncertainty. Where it is unclear whether an adverse effect will occur, that does not excuse a lack of action to address the effect.¹³⁴ In short, it is better to be safe than sorry. This goes further than the principle of prevention, which simply holds that it is better to prevent harm than to respond to it after the fact.¹³⁵

The precautionary principle has a rich history in international law, with its most famous formulation being in Principle 15 of the Rio Declaration on Environment and Development (1992). This proclaims that “where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation”. Generally, the greater a risk’s probability and magnitude, the more precautionary the response needs to be. Whether remaining risks are acceptable or not cannot be answered in the abstract; it depends largely on value-based policies relating to the kinds of impacts.

In some contexts, residual risks can be managed through the principle of adaptive management (changing controls as more information comes to light), rather than being avoided altogether.¹³⁶ Yet it can be arguable whether adaptive management enhances precaution (by imposing more controls over time) or weakens it (by allowing risky activities to proceed).

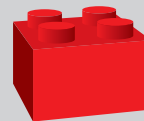
Precaution is already a significant part of our existing system. Case law has developed a great deal of nuance around this under the RMA, and marine dumping regulations are highly precautionary (they assume dumping is prohibited unless expressly authorised). More explicit “information” principles about the treatment of uncertainty exist under the Fisheries Act and the EEZ Act.¹³⁷ In the latter, the courts have relied heavily on precaution as a reason

to decline or impose conditions on consent for mining activities, showing the value of a clearly defined statutory principle, not just a general ethos or approach.¹³⁸ And precaution is proposed to be codified in the NBA both as a general principle and in the form of a mandatory buffer when setting environmental limits above a point that threatens ecological integrity.¹³⁹

Overall, the precautionary principle (or “approach”) is particularly important in the marine environment, given the difficulty of obtaining information.¹⁴⁰ Yet while the current system recognises precaution in many ways, in others it is more questionable. For example, despite a precautionary principle in the Fisheries Act, most catch limits are rolled over on an annual basis without a stock assessment. Many related and dependent stocks are not assessed at all. There is relatively little attention paid to the land-based impacts that could impact on stocks in the future. This is understandable given the cost and time involved in the process, and the number of interrelated stocks, yet it does beg the question as to whether we should be fishing at all if we don’t know the true status of the stock (and its habitats). Precaution does not demand *perfect* information, but it does guide the nature of the response if information is lacking. Some have argued that the precautionary principle has been used in ways that actually undermines its intent.¹⁴¹

Moreover, it is arguable that precaution is not baked into the broader fabric of the system when caution is needed across statutory boundaries. For example, cumulative risks from catchments, fishing, mining and pests pose threats of serious and potentially irreversible damage, yet uncertainty about how they relate has still led to siloed approaches to individual pressures (eg tackling fisheries, biosecurity and sedimentation separately) and a lack of cost effective measures being taken across them (eg MPAs and marine spatial planning). Precaution might not be achieved by simply considering whether or not to allow new activities; it may require proactive measures to improve information or to enhance the environment.

The precautionary principle states that where there is uncertainty as to the adverse effects of an activity, this is not a reason to fail to take action to address them. It includes approaches to risk identification, risk assessment, and risk management.



A broader precautionary principle could be adopted at a more systemic and proactive level, including obligations to take positive action to enhance the resilience of the environment where future cumulative impacts are uncertain.

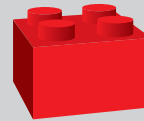
Subsidiarity

Decisions can be made by a variety of institutions at a variety of levels of governance. Subsidiarity provides that decisions should be made closest to, and in line with the values of, those most affected by them (the relevant community of interest).¹⁴² It is not the same thing as localism.

It can be difficult to determine where the appropriate community of interest lies, because many communities have legitimate and conflicting interests.¹⁴³ This is particularly evident in the marine context. For example, it is by no means clear that residents of a region (those who vote for regional councillors) are the appropriate community of interest when it comes to impacts on the moana at the outer edge of the coastal marine area, far from where most people live and work. Nor is it clear that centralised authority should be dominant when it comes to making decisions about highly localised depletion of inshore fish stocks that affect the ability of marae and communities to feed themselves and sustain the ecosystems in their backyards. Efforts to lay down a series of localised rāhui (leading to fisheries closures), and to pursue small-scale MPAs under the RMA in the Bay of Plenty, highlight this tension. There are also unresolved questions about “devolving” decision-making to particular communities of interest (eg mana whenua, sector groups, or collaborative groups), which is not about centralisation or localisation per se; instead, this is about how the system identifies and defines dominant communities of interest.

For its part, the RMA provides for political decision-making power at the planning level to shift as the relevant community of interest changes,¹⁴⁴ and the national level Environment Court has wide-ranging jurisdiction on appeal (even for local matters).¹⁴⁵ But aside from the NZCPS, and the approval role of the Minister of Conservation for regional coastal plans, central government has not taken a proactive role in managing the coastal marine area. Conversely, there are few meaningful mechanisms in the Fisheries Act for *local* level influence, only input.¹⁴⁶ Holders of a customary marine title recognised under the MACA Act are given the power to grant RMA “permission rights” within a title area, without which an activity requiring a coastal permit cannot proceed.¹⁴⁷ But these do not directly influence fisheries decisions, which remain centralised. And while some frameworks provide for devolution of decisions to mana whenua and industry or other stakeholder groups,¹⁴⁸ the existing system provides little by way of guidance as to when or why such things should happen.

Subsidiarity seeks to locate decision-making responsibilities closest to (and according to the values of) the relevant community of interest. There is a separate Māori community of interest alongside national, regional and local ones.



A future system could provide more clarity as to what subsidiarity means in the marine environment, and when it is appropriate for decisions to be centralised or devolved to councils, mana whenua, or stakeholder groups.

Other principles

A number of other principles can be noted more briefly. Some of these are not spoken of as “principles”, in the sense that it is hard to define them in a way that can be included in legislation. Yet they often lie behind design choices and decisions.

- *Efficiency*: In terms of process, decisions should be streamlined but must be balanced against the need for good information and public participation. It must also be remembered that efficiency is only about the most efficient way to achieve a desired outcome, and not a substitute for debate about what that outcome should be. Sometimes the best outcomes will require time and cost. Efficiency is important both in terms of administrative process and the use of resources themselves, such as how scarce things like fisheries and marine space are used as well as the kinds of tools used to manage that use (eg market-based ones versus regulatory ones).¹⁴⁹ It has implications for broader design features too; a highly fragmented system or one that is unclear is bound to be inefficient. Yet a costly system can still be an efficient one if it is good at delivering what we want.
- The *conservation* principle: This recognises that protection and enhancement of the environment must be relatively absolute in some geographical areas, for some species, and for the functioning of the natural world as a whole. It is a useful label for the idea that underpins the moral imperative to prevent extinctions and to impose environmental limits focused on ecosystems. It encompasses the principle of *non-regression*, which states that measures beneficial for the environment should not subsequently be removed or eroded, and the *public trust doctrine*, under which the state acts as trustee of the

ecological health of “public” areas.¹⁵⁰ It is not just about preventing extinctions or saving threatened species from further decline; conservation is equally about regeneration and restoration.

- *Property rights and security of investment* are not usually considered to be a principle per se, but recognition of these is a core tenet of capitalism that generally goes unspoken. It is implicit, for example, in provisions that require decision-makers to have regard to the level of investment made when deciding whether to renew an existing consent. This does not mean that property rights have to be *granted* (ie that marine resources are privatised), but it does mean there is a high threshold before they can be extinguished, where they already exist. The defence of property rights can be regarded as a principle (to be balanced against other principles), but an alternative is that property *rights* are regarded as something that lies beyond the scope of the system entirely (see Chapter 6).
- Similarly, *economic growth* is a principle that lies behind parts of the system, but is seldom invoked specifically. Instead, often the broader notion of *wellbeing* is enshrined in legislation (eg the RMA and the Local Government Act) or in other mechanisms (eg the Treasury's wellbeing framework for funding decisions). The concept of wellbeing is an even more slippery one than sustainability, because

often different types of wellbeing (social, cultural, economic and environmental) have no clear hierarchy.

- The principle of *polluter-/user-pays* seeks to distribute the costs of resource use between private and public interests. It generally places costs on the polluter or user (or those who benefit from it) unless there is good reason not to, and is one expression of *environmental justice*. A future system may need to be much clearer and more transparent about who actually bears the cost of polluting activities, and provide measures to transition towards a more equitable distribution of costs. For instance, activities generating sediment on land are not generally held accountable to those who suffer from its impacts (eg through lower productivity in estuaries and food-producing ecosystems). This does not mean that people should have a right to pollute or use resources simply by paying for them. It also has implications for how acceptable offsetting mechanisms are in the marine environment (degrading one environment to enhance another), and the deployment of tools like marine biobanking (see Chapter 8).

Many other principles may be important in designing a future system, including efficiency, conservation, non-regression, property rights, economic growth and the polluter/user-pays principle.



Forestry harvesting, Havelock

7.5 How principles are used

When it comes to system design, there are two distinct ways to think about the principles described above. First, principles are norms that underpin and guide a reform exercise itself. These might be called “foundational” principles. They operate in the “backroom” of reform. For example, a principle of non-regression might result in any attempt to weaken environmental limits in national direction being subject to review or even appeal in the Environment Court. Ecosystem-based management might see a tighter relationship between the RMA and Fisheries Act, or the merging of those frameworks into one statute. And a participatory principle might tell policy-makers that the public has a right to be involved in any decision involving value-based decisions or ones that affect them personally. Even assumptions about the sanctity of property rights, capitalism and liberal democracy can be seen in this light. Foundational principles are not necessarily spelt out in a statute. Instead, they guide choices when reforming the system.

Secondly, principles can themselves be specifically defined in legislation or developed through case law. These might be called “operational” principles. Operational principles have life and influence through the ongoing operation of the system. They are spelt out meticulously as a way to guide the exercise of discretion and as an aid to interpretation of other provisions. For example, a statute like the RMA contains principles like inter-generational equity and sustainability that are subject to constant interpretation when making decisions on plans and consents. The Fisheries Act and EEZ Act have information principles that can be the subject of litigation.

In reform exercises, more importance is often placed on how operational principles like “sustainable management” and “te oranga o te taiao” are drafted in legislation than on how the foundational principles of reform itself are articulated (if at all). The former are seen as legal, whereas the latter are in the realm of politics. However, it is important to give due consideration to both. Foundational principles can be just as significant as operational ones, as they drive all sorts of system features (eg the tools that are used and the institutions that support them) – not just the purpose and principles of legislative silos.

Principles can be used in two key ways: (1) as foundational principles, where they guide other system design choices without being included in legislation, and (2) as operational principles, which are included in legislation and are used as guides to ongoing statutory decision-making.

7.6 Choices on principles for the future

In a future system, we face a number of choices when it comes to principles. We can adopt some (or a particular variation of them, such as sustainable management) and reject others (such as sustainable development). We can carefully articulate the relationships between different principles, either within a broad framing (eg linking use and protection within the principle of sustainability through a term like “while” or “subject to”) or by establishing a hierarchy or synergistic relationship between different principles (eg making clear there is a hierarchy between the utilisation of fisheries and conservation of marine mammals).

General principles like sustainability, precaution and justice can also be worded very differently depending on the worldviews underpinning them. For example, if something is “sustainable”, what are we actually trying to “sustain”? Is it the ability for a resource to keep us alive? Its ability to support economic growth? The ability for a species to be kept from the verge of extinction? The ability for mana whenua to exercise kaitiaki responsibilities and protect (and use) taonga? This difference is most obvious when we look at the conceptual gulf between sustainability that is underpinned by concepts like kaitiakitanga, whakapapa and whanaungatanga; or framings like te mana o te moana and te oranga o te taiao; and notions like MSY or maximum economic yield.

We can also think about when principles *bite* – whether a principle gives a reasonably clear indication of an outcome in primary legislation, or whether more generally worded principles are left to be interpreted and elaborated in more specific contexts through policies, regulations and permits. For example, the RMA in Part 2 gives only a general sense of what marine outcomes are envisaged from particular activities, and even in a lot of plans and national direction (eg the NZCPS) policies do not have clear hierarchies or directive language.¹⁵¹ The real meaning or impact of principles is only felt when they are balanced or crystallised in regulatory mechanisms like rules, standards and – most often – in consent conditions (or refusals).

The principles outlined above (and potentially many others) could be adopted, rejected or modified. They might be expressed differently in different legislative contexts.



Principles in a future system could be made more specific and directive in legislation, giving greater clarity as to what outcomes are expected and less room for interpretation by policy makers and the courts.

7.7 Objectives and the system's core roles

It is possible for principles to be quite specific and directive. At some point, these are better described as objectives rather than principles. For example, while one could say that the system is aiming for “resilience” or “ecological justice”, it is hard to measure success for such things; a future system could be aiming for much more specific and measurable objectives than that.

For the most part, the current oceans management system is defined by principles and shies away from specific, time-bound objectives. Even provisions specially *called* objectives in RMA plans are often vague to the point of confusion. There are some exceptions – the principle of sustainable utilisation in the fisheries context, for example, has arguably crystallised into a measurable objective – MSY (see the spotlight earlier). Indeed, it can be plotted on a graph, something which is well out of reach for a principle like sustainable management under the RMA. Yet even this objective, like the more general ones of the RMA and EEZ Act, is still essentially seeking to maintain a static state. As pointed out in Chapter 3, such things are about management, not change. They are not *strategic* objectives.

Many specific objectives could be sought in the future, and we offer some thoughts below as to what they might be. But the key design question for the future is whether the system should consciously drive towards a new future, rather than leaving big-picture objective setting to the vagaries of politics of the day. To put it another way: if one core role for the system is to pursue positive outcomes, should marine management frameworks become more like climate change (see the spotlight below), where the statute contains a clear imperative for measurable change¹⁵² and powerful legal mechanisms to get there? We have said previously that:¹⁵³

If the system lacks clear goals for the future,¹⁵⁴ we need to give it some – and ways to get there ... If it does not, we may become stuck in a politicised cycle focused on the pros and cons of the status quo, not the opportunities and risks we face in the future.

A spotlight on climate change

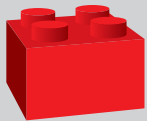
As New Zealand Inc, we are developing a general vision for land use change (driven by climate change imperatives). That is illustrated in incentives for afforestation (through the emissions trading scheme and One Billion Trees programme), national direction for the protection of productive land, and proposals for a formal framework for regional spatial planning. We are also looking to transform a whole sector – transport – to make it carbon neutral, including through quite direct interventions like banning the importation of conventional vehicles and subsidising the uptake of electric vehicles. All of this is in the service of a clear statutory direction to meet Aotearoa New Zealand's nationally determined contribution under the Paris Agreement and to limit global temperature rise to below 1.5 degrees Celsius. This is far from the laissez faire approach to resource management – avoiding, remedying and mitigating – that we have become used to over the past three decades. Our objectives are becoming more specific, and more geared to forcing change. And we are pursuing an overhaul of the way society operates to get there.



Meola Creek, Auckland

This begs the question: should we not also have a similarly (or more) ambitious strategy for what would be the best use of ocean space? For example, should we proactively plan for the roll out of offshore renewable energy projects, in order to mitigate climate change, provide for energy security, and soften the impact on workers in the oil and gas sector? Do we need dedicated zones earmarked for desalination in anticipation of meeting new freshwater drinking needs in Auckland (see Chapter 2), or do we wait for the market to take the lead and deal with any spatial conflicts later on? Should we seek to utilise new resources like rare minerals, or existing resources in new ways (like deriving pharmaceuticals from fish and shellfish), to bring economic opportunities?

The current system has relatively few specific objectives for change baked into its legislative fabric, instead relying on general principles like sustainability. Climate change is one exception where objectives are clear and direct.



A future system could legislate for a much more specific set of objectives, including timeframes or milestones for achieving change.

Rather than offering a laundry list of possible objectives, it is useful to consider them in the context of the more specific roles the system might be expected to perform. For example, although there may be some overlap, what we are seeking to achieve by imposing environmental limits is likely to be quite different to our aims for allocating resources. We consider a range of potential objectives below.

Environmental limit setting

The existing system arguably does not impose true environmental “limits” (see Chapter 3). Limits, sometimes referred to as bottom lines, are about identifying minimum acceptable outcomes – the points at which harm is to be prevented no matter what the trade-off. These can be expressed in different ways, such as a minimum state for the environment (eg minimum coastal water quality, or minimum populations of species) or the maximum amount of pressure allowed (eg maximum concentration of a contaminant or maximum catch of fish). Limits can be set using different tools, such as a cap and trade system, prohibited activity regulations, or a fisheries bag limit (see Chapter 8). But our concern here is not *how* they

are set, but whether, and why, limit setting is a distinct role a future system should be expected to perform at all.

That is not a foregone conclusion. We have previously said that on land this is “one of the least controversial ways in which the system plays a role”.¹⁵⁵ It can be seen in strict minimum noise standards, controls on air quality, or nitrogen caps in a catchment. Such things are measurable and there is a clear link between the activity being restricted and the minimum public good outcome being defended. Swimmable rivers might, for instance, be regarded as a limit or bottom line at which point no more agricultural intensification can occur in a catchment. But it is arguably more difficult to put the concept into practice at sea, where the environment is more fluid, connected and fluctuating, things are harder to measure and observe, and our understanding of ecological processes and the impacts of cumulative impacts are poorer. It is also harder to ascertain when limits have been breached (due to monitoring constraints).¹⁵⁶ In workshops, some instead expressed support for concepts like continuous improvement and adaptive management, seeing firm limits as too difficult in practice.

That said, some things might be amenable to limit setting in the marine environment. For example, point source discharges (eg through wastewater standards for outfalls) can be controlled. Fisheries are already familiar with the concept of a catch limit (including, in practice, a “hard” limit on stock size) even where there is incomplete information.¹⁵⁷ Marine biosecurity has very strict limits on the introduction of pest organisms (although less so once they are established and financial trade-offs are finely balanced).¹⁵⁸ And limits can be placed on mortality when it comes to protected species (eg maximum bycatch before closure of a fishery).

Furthermore, while they can be hard to measure and attribute causation to, overall precautionary limits could still be required for diffuse discharges, such as sediment from urban development or forestry harvesting operations, by targeting limits spatially at particular land uses (ie identifying where those activities cannot under any circumstances occur). Limits could also be imposed “upstream” by prohibiting the creation or manufacture of products containing pollutants that we know end up in the marine environment (eg microbeads and heavy metals). It depends what one means by a “limit” – they do not necessarily require specific numbers to be set. Indeed, limits recognised by the Supreme Court under the NZCPS are non-regulatory policies that contain strong language like the broad requirement to “avoid” adverse effects.

The issue is therefore not *always* that environmental limits are hard to set and monitor. Rather, the current system does not necessarily *want* to set them if that would prevent trade-offs being considered on a case by case basis. For example, imposing an inflexible limit on sedimentation in the Marlborough Sounds might require plantation forests in some catchments to be left completely unharvested, undermining significant investments in forestry and expectations that go back decades. Do we want to set limits here, or instead allow trade-offs depending on the extent of investment in any given catchment? Slowing the speed at which a fishery is reopened after closure, which remains largely a discretionary decision,¹⁵⁹ would also affect short term profitability in the fishery. Should we take into account economic factors in deciding how fast a stock rebuild should be, or consider only biophysical factors in how we get back to healthy stocks?¹⁶⁰ A lot comes down to whether we want to set hard and ambitious limits or not.

There might also be strong *social* resistance to imposing environmental limits. For example, restrictions on where cats can be owned, and treating some as a biosecurity risk to be eradicated, may ease the toxoplasmosis threat to the Māui dolphin (see Chapter 2). But controls on domestic cats would upset many pet lovers; 44 percent of homes in the country have one.¹⁶¹ So do we set some kind of limit on cat ownership, or balance the interests of pet owners against those of dolphins? The former would come at a cost.

Yet it is interesting that, for many non-environmental matters, the current system is not shy about setting strict limits. Such a role has been strongly embraced where immediate social and economic impacts would be felt. For example, there is little opposition to protecting sensitive infrastructure like submarine cables and pipelines (even from economically and socially valuable activities involving trawling and anchoring)¹⁶² or excluding people from areas around mining operations or dangerous shipwrecks. An uncompromising approach to biosecurity (which closed down an entire bluff oyster aquaculture industry in the Marlborough Sounds) can at least partly be explained by its potentially catastrophic economic impacts for other sectors (in that case the wild bluff oyster fishery). The Building Code is understandably uncompromising in its requirements that buildings will not cause loss of life in an earthquake. And many “environmental” success stories (eg air quality improvements) can be put down to the imperative to prevent direct human health impacts rather than protect the environment per se. In all this we can see that limit setting is primarily a product of the political will at any given time, not a core feature of the current system. Should protecting something like a reef or seamount through *environmental* limits be so different?

Perhaps. Yet strict limit setting in some contexts may be an uneasy fit with *tikanga*. That may be the case where limits prevent important cultural uses by prioritising *other* uses (eg commercial fishing which causes local depletion), or where no-take spatial protections sever relationships with the *moana* (which rely on *mana whenua* interacting with it as *kaitiaki*). Limits can be culturally problematic where they are permanent (eg in the creation of a marine reserve) rather than temporary (eg through *rāhui* to allow stocks and habitats to replenish). In isolation, limits can also be seen as encouraging a race to the bottom. That is inconsistent with the need to enhance already degraded environments as well as *te ao Māori*, which is about maintaining a reciprocal relationship with nature rather than just preventing collapse.

A key choice is whether the concept of an environmental limit (a non-negotiable and absolute minimum outcome to be defended), as opposed to making trade-offs by balancing competing concerns, is a distinct role a future system should be expected to perform.



A future system could specifically define what an environmental limit is, and require such limits to be set for a defined list of things in the marine environment.



Sandager's wrasse, Mokohinau Islands

Tanya Peart

When it comes to something like submarine pipelines, it is reasonably easy to articulate why we have limits – a pipeline is either broken or not, and any activity that could damage (eg anchoring) it is duly prohibited. It is, however, harder to articulate exactly why environmental limits are needed and therefore where they should be placed.

One option would be for limits to be set in places that would prevent the collapse of marine ecosystems. That would be an outcome that must, at all costs, be prevented. Alternatively, limits might be set to achieve anthropocentric objectives such as the protection of a basic level of human health (eg when setting pollution standards). Indeed, both of those things are proposed to be point of limit setting in the new NBA, which provides:¹⁶³

The purpose of environmental limits is to protect either or both of the following:

- (a) The ecological integrity of the natural environment:
- (b) Human health.

However, limits could aim to achieve a range of other outcomes, such as protecting the pristine state of areas that are valuable to recreation or scientific research (eg marine reserves). They could aim to prevent the extinction of species. Or they could be set at points that maintain the mana or mauri of a resource or ecosystem, which may well be a much higher minimum standard than the prevention of ecological collapse. The goal could be more specific still: for instance, remove all forms of marine life from threatened status by a particular date.

The purpose of limit setting might also be phrased in a relative or an absolute way. The former would essentially treat the status quo as being broadly acceptable as a minimum standard, but any *further* degradation would be strictly prevented. This kind of approach is evident in how wetlands are being treated under the government's essential freshwater reforms (where national direction mandates "no further loss" in the extent of wetlands).¹⁶⁴ Alternatively, the purpose could be based on a more absolute measure of environmental quality, which might mean, for some things (eg where entire ecosystems have tipped over into a new, less productive state), limits would already have been infringed.



Saltmarsh and mangroves, Miranda

What we are hoping to achieve by setting limits also affects the scale at which they are imposed. If we are wanting to preserve an *overall* minimum measure of biodiversity or representative ecosystems, we might be happy to trade-off harm in one place for compensation or net gain elsewhere. In that case, limits could still be maintained while providing for environmental offsetting or compensation. That becomes very important when considering the design of MPAs (see Chapter 9), given that absolute protection in one place can concentrate fishing pressures (and cause limits to be breached) in others.¹⁶⁵ It is also relevant when considering the boundaries of QMAs (see Chapter 8), where overall catch limits can be adhered to but still cause localised depletion of significant value to marae, recreational fishers and local communities.

Environmental limits might also be imposed to protect the values of specific locations – values that could vary markedly from place to place – which is quite a different purpose to those outlined above. For example, many existing marine reserves are arguably more about protecting the unique values of specific places (eg for research, tourism, particular uses like diving, or distinctive features or life forms) rather than defending biodiversity outcomes per se. Should the system have a role in imposing inflexible and permanent limits to achieve the former, or only the latter? What makes one marine space more important than others? And would we contemplate spatial limits that moved – such as protected areas that shifted from one place to another as the climate changed – to achieve overall biodiversity gains? Or are protections inherently tied to place?

Moreover, what we are seeking to achieve by imposing environmental limits may depend on what we include in the concept of the “environment” and how far that goes. There may not be consensus about which *types* of things require uncompromising limits and which do not. For example, would we want to put inflexible prohibitions on particular activities (eg ports, aquaculture or commercial fishing) on the grounds that they would affect the natural character or “amenity” of marine environments?¹⁶⁶ Or prohibit activities to protect marine heritage (eg shipwrecks) or culturally or spiritually significant sites (like wāhi tapu?) Or to strictly limit the impacts of one activity (eg aquaculture) on another (eg fishing)? Those are all “environmental” impacts under the broad definition in the RMA, but they may not necessarily reflect the kind of objectives for which limits are required. Then there are even more complex and controversial things like limits to economic growth or limits on human population. Are we hoping to pursue such things by setting uncompromising environmental limits? Some may be intrigued by the prospect. But core “limits” in the marine context might have a distinct purpose relating to strict protection of basic

ecological function and structure, human health, and harm to threatened or protected species.

It is also interesting to consider whether the purpose of limit setting in a framework like the RMA or NBA could be more *marine* focused than the RMA is currently. For example, the EEZ Act has a dual purpose (essentially, sustainability *and* the prevention of pollution), and its strong second pillar has been interpreted as being significant for how tools are used, such as when determining applications for consent.¹⁶⁷ That could be reflected in the NBA as well, given the strong imperative to reduce or phase out pollution in coastal areas.

Trade-offs and dispute resolution

Many activities can have impacts on the moana, but that does not mean we simply ban them all. Instead, the system often has to figure out if harm is a price worth paying. And although trade-offs should not be conflated with limit setting (as it arguably has been in practice when considering the recovery of some fish stocks),¹⁶⁸ it is not enough for the system to just set limits and walk away. It needs a mechanism to balance various competing matters. Indeed, one commentator has pointed out, “in the absence of [any] trade-offs, decision criteria can become paralysed”.¹⁶⁹

Often a conversation about trade-offs is framed around how the system strikes a balance between environmental harm and economic and social benefit. Some have suggested that existing statutes like the RMA (at least on their face) fail to recognise the benefits of the latter.¹⁷⁰ There is something in this reasoning. Arguably, the RMA was never intended to have such an “active” planning role, as some hoped that market forces and personal choices would resolve any trade-offs as long as environmental limits (which were, at least in theory, contemplated by section 5 of the Act) were not infringed.¹⁷¹ Yet value-based trade-offs were inevitable in practice, as decision-makers were specifically directed to consider the positive effects of activities, not just negative ones. Much consent authority time has gone into weighing up the pros and cons of activities in light of various policies and objectives. The Act’s silence as to the benefits of resource use did not mean they could be ignored – it just meant the process of weighing them against other things was left almost bereft of statutory guidance.

We have previously described this as the Act’s inbuilt identity crisis – that it even has a role in guiding choices above environmental bottom lines was never made particularly clear.¹⁷² At least in the marine environment, the mandatory NZCPS has assisted somewhat (it talks about the value

of things like infrastructure alongside the importance of protecting the natural environment), but its policies have still required extensive litigation – including all the way to the Supreme Court – to determine what their relationships mean in practice. Things are even less clear under the EEZ Act, which has been left entirely devoid of such policy instruments. As described in Chapter 3, this can leave novel activities like offshore aquaculture and deep-sea mining in policy limbo, wasting applicants’ time and effort and causing angst for other stakeholder groups engaged in costly litigation.¹⁷³

It would be possible for such things to be rectified by “rebalancing” the list of outcomes sought by such statutes (as long as they were clearly subject to environmental limits) and by clarifying the relationships between the outcomes sought. At least at a high level, key trade-offs (eg do we want to pursue offshore wind or allow deep seabed mining? Where and where not, and subject to what standards?) could be made up front for all to see. Indeed, the exposure draft of the NBA has included the broad outcome of “sustainable use” of the marine environment, although due to its generality and the fact it is located next to the term “protection”, that is hardly a meaningful guide to how trade-offs should be made on the ground.¹⁷⁴ It does, however, signal intent about what kinds of things the Act will be expected to do differently in the future, including taking a more active approach to balancing the pros and cons of use and protection.

In a future system, this role could also be reframed as one in which synergies are pursued. For instance, the rollout of more nuanced MPAs could be framed not just around where harm (eg from bottom trawling on the benthos) is no longer worth the benefit, but also as an opportunity to protect areas of value as nurseries for stock recruitment (from both fishing pressure and land-based sedimentation). The system could be reoriented to seek win-win situations where the social and economic benefits of use and environmental wellbeing can be enhanced. Indeed, the Randerson Panel has proposed to transform the “trade-offs” implicit in the RMA into the synergistic “outcomes” focus of the NBA, and we have previously said that:¹⁷⁵

We need no longer accept that a project that enhances economic wellbeing must come at an environmental cost, or simply be as environmentally neutral as possible. The system should therefore think not just about “trade-offs” but also about “convergence” and a “race to the top”.

It is also important to remember that making trade-offs is not just about environment versus development. It is also about making choices between

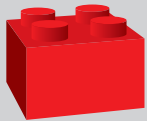
different forms of use and development. Although an assessment of trade-offs between the costs and benefits of various marine activities is a well-worn path under a consenting framework like the RMA... a key question for the future is whether the system should deal with more strategic trade-offs in advance.

At present, a lot of tensions between marine activities span different statutory frameworks and can be brushed under the carpet, because they do not need to be addressed within a single decision. For example, a consent authority considering an application to occupy the seabed under the RMA is not required to consider the opportunity cost (whether a different kind of use might be better).¹⁷⁶ And it is at least possible for mining operations to be consented in benthic protection areas even though bottom contact fishing methods are not permitted.¹⁷⁷ The system¹⁷⁸ could have a more proactive role in making trade-offs across a range of such things, including the following.

- Whether sustainable offshore aquaculture operations should be supported irrespective of their potential to impact adversely on wild fishing interests.
- Whether the development of sustainable inshore forms of aquaculture like seaweed and some shellfish is more important than the harvesting of plantation forests or coastal urban development (which could have impacts on it).
- Whether fish and other resources are better used as a source of food, or whether other uses should be supported instead/as well (eg nutraceuticals).
- Whether, even with the emissions trading scheme, climate change mitigation is more important than exploration for petroleum.
- Whether sub-seabed space should be used for oil and gas extraction or a reservoir for compressed carbon dioxide captured from industrial emissions.
- Whether the economic benefits of commercial fishing outweigh its impacts on recreational fishing opportunities.
- Whether the eco-tourism and recreational benefits of protected areas outweigh the impacts on other sectors like fishing and mining.

The point here is not to suggest which choices the system should make, and we invite readers to consider that for themselves. Instead, it is to ask whether a future system should be involved in making such choices at all. Such things could, for example, be treated as matters for inter-sectoral dispute resolution and facilitated through mediation or collaborative spatial planning when conflicts arise. Or they could be lent considerable policy support and strategic direction through legislation. In the marine context, there is almost always a public interest element in the resolution of disputes, which sets it apart from land where some disputes (eg between neighbours) are almost wholly private in nature.

The current system has something of an identity crisis when it comes to making trade-offs above environmental limits, because it provides little guidance as to when the pros should outweigh the cons of particular activities, or whether this is really something the system should be doing at all. A future system could be clearer about why this role is being performed, and tackle some difficult strategic trade-offs between types of activities in the marine space.



A future system could be expected to guide more clearly how trade-offs are made between different forms of wellbeing above environmental limits. It could also reconceptualise the role from one of balancing things against each other to seeking win-win situations.

Allocation

The system's role in making trade-offs is closely connected to another role: allocation. This is because higher level choices about *kinds* of desirable activity are sometimes linked to very individual issues about who gets to use a resource and – if there is a limited amount of it – who does not. For example, strategic policy choices can be made by allocating space to some activities in advance (eg aquaculture, recreational fishing parks, wind farm zones). In practice, this excludes not just some uses, but also some groups of people.

However, the system could have a much broader role in making allocative choices. Not only could it determine to what kind of *use* marine resources

are put, but also who specifically gets to undertake the use (individuals, companies or groups). An allocative role is complex in the following ways.

- Different resources (eg fish, minerals, occupation of coastal space) can be, and currently are, treated differently from each other. They are allocated for different purposes and by different mechanisms.
- It is not just tangible “things” that require allocation, it is any right that is scarce (eg the right to conduct tourism operations in a marine reserve, or the right to catch a proportion of a TAC).
- There are three distinct kinds of allocative decision – (1) an initial allocation, (2) reallocation (the transfer of existing or previous rights or use from one person to another), and (3) deallocation (in what relative measure people give up their rights when scarcity increases).

Aside from some private land titles (traded via the market) and fisheries quota (again, bought and sold on the market with some economic regulation), marine resources rely heavily on regulatory mechanisms for allocation.¹⁷⁹ However, aside from Crown owned minerals, it is questionable whether the existing system has really performed an allocative role other than by a sidewind. Rights – especially under the RMA – are recognised largely on a first in, first served basis:¹⁸⁰

Although the RMA does not really care how resources are allocated, it still goes ahead and does it anyway. A resource consent decision creates a legally defensible and sometimes exclusive right to use scarce resources (and sometimes for a long time – up to 35 years).

Concessions and permits under conservation legislation are also usually granted on a first in, first served basis. One of the growing criticisms of the system is that, while it deals with sustainable management and conservation of resources, it does not provide sufficient direction as to the allocation of many of those resources between different classes of activities. Should allocation be towards the highest and best use, or to the most deserving applicants? One commentator has noted the “ingenuity” of councils in trying to use a framework like the RMA to “make the allocation of resources a necessary means of controlling effects”.¹⁸¹ Deficiencies in the RMA are particularly obvious in the case of aquaculture, and they are equally present under the EEZ Act (under which aquaculture might be possible in future). A future system could be designed to perform an allocative role more proactively in the future, and we explore options for doing so in Chapter 8 when we look at resource use rights.

An even bigger question is the extent to which the system should have a role in reallocating *existing* rights, such as fisheries quota and rights to occupy marine space. The legitimacy of doing so might depend on several things – the nature of the right (eg property vs other rights), the mechanism by which it is done (eg regulatory taking, extinguishing consent, or voluntary buy back) and the purpose for which reallocation is pursued (eg to improve the environment by removing the worst performing rights holders from the system, or to achieve greater social equity). Whether the system should have a reallocative role is therefore not a simple yes or no answer.

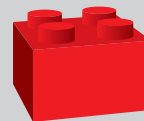
Finally, there is role of *deallocation* to consider. If the system is to reduce the allocation of something where it is the overall impact, not a particular user, that is important, then there is the question as to whose rights should be removed and in what measure. That is reasonably straightforward when it comes to reducing commercial harvesting levels, as quota rights are already expressed as a proportion of the TACC and decrease accordingly when the TACC is reduced.



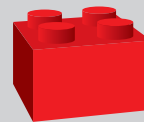
Harvested gurnard in slurry

However, the situation is more complex when fishing effort needs to be “deallocated” by spatially excluding fishing from particular areas (eg through MPAs or rāhui). Why should quota holders in one QMA give up more space than those in a neighbouring one? Should MPAs be distributed fairly across all QMAs so as to equitably share the cost amongst the sector, rather than being determined according to ecological criteria? This “spatial” deallocation of rights is perhaps the thorniest “deallocative” role the system will have to grapple with in future. Other situations are challenging too, such as when it comes to the proportions in which recreational and commercial take should be reduced when a TAC is lowered.

The current system performs a crucial allocative role – it determines who gets to use what and for how long – but in many contexts it does not do so in a proactive way or consider what use would be best. A future system will need to engage more directly with its allocative role, as the marine space becomes more congested and contested, and potentially consider how rights could be reallocated or even deallocated (and in what shares people would have to give up rights and interests).



The system could be expected to guide how rights to use or benefit from different resources are distributed.



The system could be expected to guide how some existing rights might be reallocated to “better” uses or users over time.

If the system were to play a more proactive role in allocating or reallocating resources, the purposes of doing so would need to be made clearer. At a general level, the system might seek fairness, efficiency and/or certainty. But there are many options for what that could look like.

On the one hand, the system could seek to simply allocate marine resources to those who can pay for them. That could, like the QMS, be primarily about economic efficiency. It could also be about generating an ongoing return to the public, as is already the case for royalties for Crown owned minerals.

Alternatively, the objective behind allocation could be to provide certainty of rights and a clear pathway for resolving disputes. Under this approach, the outcome (who gets to use a resource, and who benefits from it) is less important, as long as there is clarity as to who benefits and a process that all can use to get to it. For example, a first in, first served approach to allocation gives some clarity (in that we all know we need to get in before someone else). So too does giving a preferential right to an incumbent user (eg an existing consent holder) based on the amount they have invested, or creating fixed proportions for commercial and recreational portions of a TAC. To some, that certainty may be all that is needed. But should an incumbent be preferred when it comes to reconsenting operations? Should that depend on how much investment has been made, whether a new entrant would produce better outcomes, or whether there is some other driver (eg to return rights to mana whenua or a more environmentally friendly use)?

Although there is now opportunity under the RMA and Conservation Act to make more value-based allocative decisions (where applications can be compared on their merits rather than assessed in isolation)¹⁸² it is by no means clear why one activity or operator should be preferred over another and what the objective of allocation (if any) is. This dilemma can be seen vividly in the lack of normative guidance around allocation in the RMA and EEZ Act (or instruments made under them). It can also be seen under the Fisheries Act in the respective allocation of harvest shares to the recreational and commercial sectors when a TAC is changed. Here, the courts have held that:¹⁸³

The sequential nature of the method of allocation provided for in s 21 does not indicate that non-commercial fishing interests are to be given any substantive priority over commercial interests... It leaves that to the judgment of the Minister.

However, there is very little in the Act or elsewhere to guide the Minister's judgement. Similar difficulties with allocative questions can be seen in conservation legislation, where there is little direction as to who should receive concessions to undertake tourism, research or other activities in protected areas or in relation to protected species.

In a future system, the purpose of allocation or reallocation might be more normatively rich than just providing certainty of rights. It could tackle these difficult questions head-on. Resources (or a proportion of them) could, for example, be allocated in ways that would achieve greater social equity or improve the socio-economic status of the most

vulnerable, or to uses/users that would provide the most wellbeing for society or the environment.

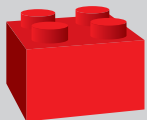
Instead of arguing interminably over who got an application in first, we could ask: which proposal would *best* promote sustainable management (or *te oranga o te taiao*)? Which method of fishing would produce the *most* sustainable or efficient outcome?¹⁸⁴ That could produce a race to the top, where the system's allocative role also performs quite a different role – environmental enhancement. A particularly interesting case is Victoria, Australia where, because of the potential for the use of carbon capture and storage technology, subsurface space (including offshore) has to be allocated between existing petroleum interests and new carbon storage interests. A targeted law introduces a test partly based on the “public interest”.¹⁸⁵

Importantly, allocative principles would need to include reference to *te Tiriti o Waitangi*, both in the sense of upholding specific settlements (for fisheries and aquaculture) and the influence of the principles of *te Tiriti* more generally. The latter is just as important as the former; with case law highlighting the need for the Minister to consider whether *iwi* should be given preference, or whether no rights should be granted at all.¹⁸⁶

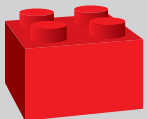
A degree of specificity would be needed around what allocative principles meant in practice (eg through national direction), to provide a reasonable degree of certainty to those seeking to use resources. Principles might also look different depending on the resource in question – for example, efficiency might be regarded as more important than equity when it comes to the allocation (or reallocation) of commercial fishing rights.

In developing allocation objectives, we also need to decide whether the system should go further and actively “pick winners” by allocating scarce resources to (or away from) specific kinds of uses or users in advance. For example, marine spatial planning (see Chapter 10) might have a specific legislative direction to facilitate offshore renewable energy or to secure recreational fishing experiences by designating suitable space for such things (and preventing conflicting uses, as we do with submarine cables and pipelines). Some have also suggested giving explicit priority to recreational fishing over commercial fishing when setting a TACC.¹⁸⁷ This more directive and activity-based approach to allocation goes much further than a principled-based approach. It is also intimately linked to the system's role in pursuing positive outcomes, because rights can be allocated to particular people or uses that would provide the most overall benefit for people or the environment.

The current system tends to shy away from principles relating to the allocation (and reallocation) of resources. A future system might be expected to determine more clearly why different resources should be allocated to different uses or users. This could be about creating a clear and certain pathway for rights to be conferred.



A future system could include an overarching set of allocative principles, which might look different for different resources. That could relate to the use to which resources are put, or which users can benefit from them. In particular, how the Tiriti provisions are worded will have implications for how resources and rights are allocated.



The system might take a more directive approach to allocation, where resources are reserved for uses or users that are seen as more deserving than others.

Pursuing positive outcomes

To some, the system may need to be a vehicle for driving positive change. Arguably we need to improve things, not just set bottom lines or allow harm when the benefits are “worth it”. That is especially the case if, as explored in Chapter 6, the basic rationale for having a system is to pursue the public interest rather than just internalising externalities. Allocating resources to the “best” uses could help, but the pursuit of positive outcomes could go well beyond an allocative role.

Part of this might involve proactively providing public goods and services – tangible things that contribute to people’s wellbeing. In the marine space, the system currently plays less of a role than on land, given that there are no roads, water connections or railways at sea. Although ports need to be provided for, blue highways themselves are provided by nature. That said, some marine infrastructure must be delivered, maintained and protected (eg for navigation, public transport and submarine cables), and that will remain an essential role in the future.

However, there may be potential for this role to be expanded. For instance, a much broader range of infrastructure might be considered important to achieve the public interest, such as offshore wind or tidal energy, justifying more active intervention (eg subsidies, the delivery of publicly funded pilot projects, or even direct provision of this kind of infrastructure as there is with roads, prisons and schools). The system may also have a stronger role to play when it comes to the provision, design and location of infrastructure on land, to reduce the environmental impacts of things like wastewater facilities and desalination plants on the moana.

Extending this role even further, there is an opportunity to rethink how a future system conceives of public services and goods. Ecosystems providing services (eg shellfish beds, reefs, carbon sinks) could be thought of as a form of infrastructure not dissimilar to concrete pipes and electricity lines. Indeed, things like MPA corridors could be regarded as ecological *network* infrastructure like the national grid, which needs to be proactively maintained and improved. Similarly, public authorities frequently provide museums, education facilities and research centres on land. MPAs could perform similar functions at sea by acting as living laboratories and classrooms.¹⁸⁸ In fact, when reconceptualising marine ecology as infrastructure, it is intriguing to consider close similarities with publicly provided land-based infrastructure in the more traditional sense.¹⁸⁹

Public goods usually exhibit particular features that means the market does not provide them (or may provide them at excessive cost).¹⁹⁰ They are often non-excludable (it is hard to prevent people using them, and therefore to require people to pay for them), non-rival (one person’s use does not prevent another person’s use),¹⁹¹ or have network monopoly characteristics (it is not practical or efficient to provide competing networks...

Those features apply equally to marine habitats as they do to things like roads or lighthouses, suggesting that ecological services are something the system needs to “provide”, not just “protect”. It is also interesting to compare the importance of *coordinating* things like roads, pipes and public transport with land use (eg residential rezoning), which is a significant theme in current resource management reforms. But human uses like fishing, tourism and recreation also need to “plug in” to ecological services to work. These services need to be present at the right time and the right place. If we were to reconceptualise the natural environment as a form of ecological infrastructure, it may transform the role the system is expected to perform and people’s perception of environmental enhancement.

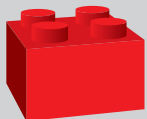
Of course, to many people environmental enhancement is important for its own sake, not just to provide services to people. That is already recognised in conservation laws to some extent, and enhancement is mentioned in the Fisheries Act and the RMA (although the latter does not really provide mechanisms to achieve it). Yet a future system could have a clearer role to play in pursuing positive environmental change rather than just dealing with the impacts of private activities as they arise. This is, for example, made explicit in Wales.

A spotlight on the Welsh approach

The Welsh Well-being of Future Generations Act places positive obligations on public bodies which “must” carry out sustainable development.¹⁹² This is a stronger and more active requirement than to simply “promote” in the RMA. The definition of “sustainable development” refers to the process of “improving” economic, social, environment and cultural wellbeing¹⁹³ rather than “enabling” people and communities to do this for themselves under section 5(2) of the RMA. In Wales, public bodies are required to set and publish objectives designed to maximise their contribution to achieving each of the seven wellbeing goals, and to take “all reasonable steps” to meet the objectives.

Indicative drafting of the proposed NBA suggests there will be a new focus on achieving positive outcomes in the marine environment, not just on the management of adverse effects. But it remains to be seen whether that is an aspiration or whether it will actually provide the toolkit to achieve it.¹⁹⁴

The current system seeks to pursue some positive outcomes in the marine environment, but it is largely defined by passive management. A future system could change its orientation to drive positive change. If it does so, it will need to provide the actual tools to enable change to happen, not just aspirational statements.



The system could be reoriented to drive positive change more than it does at present. The concept of providing public goods and services could be broadened to include the active provision and protection of *ecosystem services*.

The system could also clarify what its aims for “environmental enhancement” are in the marine context. It is not always clear how far we should go here. For example, to some, restoration might mean returning the oceans to the state they were in prior to human or Pākehā settlement. To others, it might simply mean returning to a safe space above environmental limits. And some might aim for a state of continual improvement rather than an end point. This is how the NBA proposes to treat enhancement, where there are many references to “improving” and “restoring” but no answer to the obvious question – restoring to *what*? And how will we know if things have been improved *enough*?

This issue is highlighted by the case of mangroves, which have expanded in some estuarine environments as a natural response to environmental change (eg more sediment coming down catchments). These are “new” anthropogenically driven ecosystems, but they are not necessarily *bad* ones. So should we aim to restore such environments to states that preceded human activity, such as sandy shorelines? Or embrace nature’s response to human activity?

There are many possible objectives for environmental enhancement. The proposed NBA has an extensive list. These include improving significant habitats of indigenous fauna, enhancing public access, increasing the removal of greenhouse gases from the atmosphere and improving the resilience of the environment to climate change. However, those outcomes are still fairly general, and others (eg the protection and sustainable use of the marine environment) are potentially conflicting.

There are clearer objectives set out in international documents. For example, the FAO Code of Conduct for Responsible Fishers (a voluntary document) includes targets which could, conceivably, be incorporated into fisheries legislation, such as (for example):

pollution, waste, discards, catch by lost or abandoned gear, catch of nontarget species, both fish and non-fish species, and impacts on associated or dependent species are minimised, through measures including, to the extent practicable, the development and use of selective, environmentally safe and cost-effective fishing gear and techniques.

The Aichi biodiversity targets also provide examples of how the objectives of a future system could be made more specific, including by incorporating timeframes for achieving them. For example, those targets include the following.

- By 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem-

based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.

- By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.
- By 2020, invasive alien species and pathways are identified and prioritised, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.
- By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimised, so as to maintain their integrity and functioning.
- By 2020, at least 17 percent of terrestrial and inland water areas, and 10 percent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.

This final target raises the possibility of a future system using legislated objectives for the deployment of specific tools (MPAs), not just for general outcomes (such as the NBA's "improving ecological integrity").

Raewyn Peart



Cape Rodney-Okakari Point marine reserve

A spotlight on objectives for marine protection

In 2014, following concerns that the Aichi targets were inadequate,¹⁹⁵ the IUCN World Parks Congress adopted a recommendation to “urgently increase the ocean area that is effectively and equitably managed in ecologically representative and well-connected systems of MPAs or other effective conservation measures”.¹⁹⁶ A target of 30 percent of each marine habitat was recommended for marine protection purposes.¹⁹⁷ The recommendation was endorsed by the IUCN World Conservation Congress in 2016, with the Congress issuing a resolution encouraging governments to designate and implement at least 30 percent of their national waters as MPAs and other effective area-based conservation measures by 2030.¹⁹⁸ In 2021, the High Ambition Coalition for Nature and People (an intergovernmental group of more than 57 countries) was established to advance a global deal for nature and people at the Conference of the parties to the Convention on Biological Diversity, with the central goal of protecting at least 30 percent of the world’s land and ocean by 2030 (the 30x30 target).¹⁹⁹ The target has gained widespread support.²⁰⁰ The draft Post-2020 Global Biodiversity Framework sets action targets for 2030, including the following.

- Retain and restore freshwater, marine and terrestrial ecosystems, increasing by at least [50 percent] the land and sea area under comprehensive spatial planning addressing land/sea use change, achieving by 2030 a net increase in area, connectivity and integrity and retaining existing intact areas and wilderness.
- Protect sites of particular importance for biodiversity through protected areas and other effective area-based conservation measures, by 2030 covering at least [60 percent] of such sites and at least [30 percent] of land and sea areas with at least [10 percent] under strict protection.
- Control all pathways for the introduction of invasive alien species, achieving by 2030 a [50 percent] reduction in the rate of new introductions, and eradicate or control invasive alien species to eliminate or reduce their impacts by 2030 in at least [50 percent] of priority sites.
- Reduce by 2030 pollution from excess nutrients, biocides, plastic waste and other sources by at least [50 percent].

Such targets relate to the overall coverage of MPAs, but equally important are objectives about *where* they should, and should not, be located. Take marine reserves, for example. These have been shown to effectively restore biodiversity and enhance ecosystem resilience: a meta-analysis of studies around the world showed the biomass of fish was 670 percent greater than in adjacent unprotected areas, and 343 percent greater than in partially protected areas.²⁰¹ Do we want to establish them only when and where they don't disrupt existing uses and rights? Or is that precisely their purpose? Should we “go hard” and establish no-take marine reserves where it would be scientifically and ecologically beneficial, or do we need to trade that off against other uses and cultural interests?

It is interesting to consider the approach of Natura 2000 areas in Europe, which adopt ecologically based criteria for the establishment of protected areas, rather than weighing up environmental benefits against property rights and economic value.²⁰² However, as has been seen in the context of the Rangatāhua Kermadec Island Sanctuary (see the spotlight earlier), tying objectives to the deployment of a particular brand of no-take MPA (where cultural connections are severed) may lack the nuance required of a system under te Tiriti o Waitangi.

For its part, the non-statutory biodiversity strategy *Te mana o te taiao – Aotearoa New Zealand biodiversity strategy* has three sets of goals for MPAs. The first is that by 2025 “a protection standard for coastal and marine ecosystems will be established with implementation underway”. Next, by 2030, that “significant progress is made in establishing an effective network of marine protected areas and other protection tools”; and by 2035 (on the way to 2050 goals) that “an effective network of marine protected areas and other tools, including marine and coastal ecosystems of high biodiversity value is established and is meeting the agreed protection standard”.²⁰³ However, MPA planning processes “will be underpinned by a commitment to minimise the adverse impacts of new MPAs on existing users of the marine environment and Treaty settlement obligations”.²⁰⁴

It is also worth considering what objectives an oceans management system might have for land-based management. For example, the system might have a role in increasing the use of nature-based solutions to address land-based pollution (eg use of urban wetlands to filter stormwater



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St Clair seawall, Dunedin

contaminants before they reach the sea) while providing habitat for marine species like seabirds. Demand side tools for freshwater use (especially in Auckland) such as water meters and onsite urban rainwater tanks may reduce the need to consider (or frequently use) solutions like desalination that can potentially put pressure on marine environments (see Chapter 2). And supporting the managed retreat of coastal infrastructure, rather than building defensive structures, could have benefits for marine ecosystems (eg by preserving inter-tidal habitats) as well as public access to beaches.

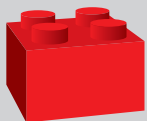


A future system could legislate for measurable environmental enhancement objectives. These could reflect those contained in international fora (eg the Aichi biodiversity targets) and could relate to the deployment of particular tools, such as MPAs.

The moana is a valuable space for people, not just nature, and it is worth contemplating what social and economic objectives a future system might have to improve people's overall wellbeing. Indeed, social and economic goals can sometimes have potential benefits for environmental wellbeing as well. For example, commercial fishers operating more profitable businesses are better able to invest in new, more environmentally benign equipment.

But there is a significant question mark over the extent to which the formal system should be expected to set purely social or economic objectives – especially if they are legislated – or simply enable people (including markets) to provide for their own wellbeing.²⁰⁵ It might, for example, raise the uncomfortable prospects of market regulation and economic planning. If this is a legitimate role, however, possible objectives might encompass the following (and we invite readers to consider others).

- Creating marine-related jobs and economic or export opportunities, including for Māori business.
- Supporting the growth of coastal tourism (eg by supporting artisanal fishers or establishing recreational fishing parks and MPAs).
- Supporting the economic health of small coastal communities (eg by planning the location of licensed fish receivers and new infrastructure like wind energy).
- Diversifying the fishing industry by encouraging new entrants.
- Connecting future generations to the sea by supporting young people to obtain fishing rights or coastal permits.
- Supporting the deployment of high value industries, such as offshore aquaculture or mining for rare earth minerals.
- Ensuring high value uses of marine resources (eg fresh rather than frozen fish products; nutraceuticals).



A future system could provide formal mechanisms by which legally influential objectives could be set for achieving social and economic outcomes.

Some sectors might be actively encouraged in a future system by being offered policy or financial support, while others might be discouraged or even stopped. For example, a timeline could be established for phasing out oil and gas exploration or bottom contact fishing methods, a moratorium could be placed on deep seabed mining and novel activities like ocean fertilisation (see below), or a target set for ramping up offshore aquaculture. Some might be keen to pursue *diversification* of the blue economy. Still others might see value in utilising marine minerals that can both support the economy and be used in technologies designed to address the climate crisis (such as solar panels and electric vehicles).

A spotlight on ocean fertilisation

In 2008, parties to the London Convention and London Protocol adopted a Resolution in response to concerns over the potential adverse effects of large-scale ocean fertilisation on marine biodiversity. The Resolution defines ocean fertilisation as “any activity undertaken by humans with the principal intention of stimulating primary productivity by the oceans”.²⁰⁶

Ocean fertilisation has been promoted as a possible solution to the problem of increasing atmospheric carbon dioxide levels. It involves the dumping of iron compounds into the water column to stimulate phytoplankton growth in the surface layer of the oceans. Phytoplankton produces organic matter that absorbs carbon dioxide from the water column, establishing a gradient between the air and sea, that promotes uptake of atmospheric carbon dioxide by the ocean. The Resolution agrees that, given the present state of knowledge, ocean fertilisation should not be allowed other than for legitimate scientific research purposes.²⁰⁷ This demonstrates that some objectives may be constrained by international obligations, but it also highlights that even “environmental” objectives in the marine space can conflict.

Going even further, a future system might seek to transform entire industries (see spotlight below). For example, one objective might be to decarbonise coastal shipping by supporting biofuels and providing incentives for changes in ship design. Oil and gas could transition to offshore tidal or wind energy in a way that is planned and supported by the system over time. It is also interesting to consider the place of fishing and aquaculture.

A spotlight on the role of the system in transforming industries

One reasonably radical question may be whether we should be more assertive in shifting our reliance from inshore wild fisheries (where information is difficult to obtain and impacts are potentially severe) towards sustainable forms of aquaculture (in appropriate places and with appropriate controls). Would such a shift have the potential to restore and enhance the marine environment while creating high value products and supporting local communities near to where activities are located? Will people a millennium from now look back at our 21st century reliance on wild fisheries and compare it to a mechanised version of pre-agricultural hunter gatherer societies?²⁰⁸ After all, we do not rely on land-based hunting in that way. Is our obligation to future generations both to reverse marine degradation, and at the same time, to proactively invest in alternative food production methods that are less vulnerable to information gaps and collapse?

Such a shift is fairly speculative, of course, and our intention is by no means to recommend it. Aquaculture itself has a number of environmental impacts and risks, including with respect to biosecurity and climate change.²⁰⁹ There are also difficult questions of ethics around whether wild or farmed protein is preferable from an animal welfare perspective. “Hunting and gathering” might sound uncivilised, but our millennia long experiment with agriculture has hardly been an environmental success story either – would we be creating similar problems by extensively farming the sea? Commercial fishing provides many benefits and it can be done sustainably if controls and market incentives are in place. One fisher has put it elegantly, in that “if farming is the backbone of this country the fishing industry is what it floats on”.²¹⁰

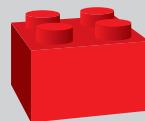
Yet the thought experiment serves to broaden the horizons of our thinking. It tests our worldviews. In particular, it requires us to think about how specific the system’s objectives should be. Is it the role of public authorities to use the system to plan industry transitions at all, or is this “economic” planning still as much an anathema as it was in the 1980s? Or does it depend on *how* public authorities do such things (either through regulation or softer incentives)? For example, a push to offshore energy could be pursued by providing additional financial incentives for projects, or alternatively by constraining the ability to get consent for land-based wind farms.

In the biosecurity context, regulation can already be very intrusive where there is an incursion triggering an emergency response (requiring, for example, the destruction of privately owned livestock

and crops, albeit with compensation). That can create immense hardship and apply to large areas, but it is an intervention that is seldom questioned. This is partly because it is for the overall *benefit* of the sector, not a way to transition *away* from the sector. It does beg the question, however: how deep does an *ecological* emergency need to become for similarly directive measures to be taken in the oceans?

Jared Diamond has pointed to an extreme example from the past, where there is evidence that tribal chiefs on the tiny Pacific island of Tikopia decided to slaughter every single pig on the island,²¹¹ because of the environmental impacts they were having and their inefficiency as a mode of food production. They did not bother assessing pig farm “consent applications”, or imposing conditions on them. Islanders simply shifted their source of protein elsewhere (fish and turtles); their objective morphed from environmental sustainability to a very specific course of action. While this relied on a system much more totalitarian than our own, and a population where each person likely knew each other individually, its small island context made it much more obvious to those living there that something needed to change. In our vast oceans, we cannot rely on the evidence of our own eyes and must instead use science.

Such questions about the proper role of the system are relevant to *any* objective that involves transitioning away from current industries, activities or practices, not just fishing. Deep seabed mining is one notable example where some are calling for an end to (or moratorium on) the activity, not just the management of its effects.²¹² That is a specific objective that goes beyond a general principle. Similarly, at least for now, we are well down the same path with respect to offshore petroleum extraction, where new permits will not be granted.²¹³ Climate change and Covid-19 are increasingly testing assumptions about the role of the system in setting quite specific objectives to be pursued through many means (including strict regulatory restrictions).²¹⁴ Is it appropriate for “planning”, rather than the market, to play a greater role in determining what the future uses of our marine space should be?



A future system could contain objectives relating to particular sectors or activities (eg whether to expand them or phase them out), reflecting a more interventionist approach to resource or economic planning in the marine environment.

Protecting the interests of mana whenua

Intimately linked to all of the above roles is a vitally important function: protecting the interests of mana whenua. This role is necessary to discharge te Tiriti obligations, but can also be seen as a broader role that is founded in the rights of indigenous peoples (eg under UNDRIP).²¹⁵ The role is about specifically recognising the Māori people as important actors in the management of marine resources, and a distinct community of interest within Aotearoa New Zealand.

An important objective of this role will be the defence of te Tiriti settlements. Notable in the marine space are settlements for fisheries and aquaculture, as well as the broader framework established under the MACA Act (although that is not a settlement, and not necessarily “full and final”). However, the objectives of the oceans management system here potentially extend well beyond redress for past grievances. The system must actively protect Māori, and (speaking generally) their taonga, from harm. That needs to encompass intangible impacts, such as effects on cultural wellbeing and ancestral connections. The system also needs to have effective mechanisms for applying traditional knowledge (mātauranga Māori).

At the same time, te Tiriti is as much about recognising Māori rights to manage and use resources as it is about protecting the environment from use (there is no binary distinction in te ao Māori). The system could be expected to enable Māori to undertake practices according to their own cultural and spiritual beliefs, and manage resources consistently with tikanga.

The system's role here colours the exercise of all its other roles, although there are also potential conflicts between them. For example, environmental limits that take spatial forms (eg permanent no-take protected areas) might run up against settlement rights and expectations (maintaining the value of fisheries quota) and the need in te ao Māori to retain ancestral connections to the moana through a degree of use. The pursuit of positive outcomes might be more targeted, such as in the support for a thriving *Māori* aquaculture industry rather than just an aquaculture industry per se. And – perhaps most significantly – the system's allocative role will be affected by te Tiriti obligations (see the discussion earlier).

Protecting the interests of mana whenua is not just about how the system's other roles are performed, however. It goes further, because it is not just about *what* the system must do (eg limit setting, allocation) but

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Ngāti Paoa waka, Karaka Bay, Auckland

also *how* it is done (eg *rāhui*) and, even more importantly, *who* should do it (eg *mana whenua* or co-governed entities). For instance, not only could the system be expected to promote *kaitiakitanga*, but also to respect Māori as *kaitiaki*. Such objectives are intimately linked to questions of institutional design, discussed in Chapter 12.

A particularly important question is how legislation articulates its objectives with respect to *te Tiriti o Waitangi*. As discussed in Chapter 3, current statutes refer to *te Tiriti* in many different ways. A future system could roll out more consistent *te Tiriti* clauses across all marine legislation, but exactly what they should say remains debatable. The Waitangi Tribunal, for instance, recommended that all persons acting under legislation “shall act in a manner that is consistent with the principles of the Treaty of Waitangi”.²¹⁶ The proposed NBA seems set to have an obligation to *give effect* to the principles of *te Tiriti*,²¹⁷ mirroring the existing provision in the Conservation Act. And it would be possible to refer to *te Tiriti* itself, rather than just principles that have been developed in the courts – although that may require the resolution of issues about which *version* or *interpretation* of *te Tiriti* is the right one, which has been neatly sidestepped by instead focusing on principles. All of these are potential options for the future.

Here, language matters. For instance, “giving effect” to the principles of *te Tiriti* has been held to require consideration to be given to priority access for *mana whenua* in the granting of concessions on conservation land.²¹⁸ This is because it is one way that *iwi* can strengthen ancestral connections with *te taiao*, and give practical effect to the principles of *te Tiriti*.²¹⁹

How a similarly strong direction might apply to the marine context in other legislation remains unclear but may be significant. It might, for example, have an impact on how coastal space is allocated (well beyond the context of aquaculture, where a settlement has been reached), and how the assimilative capacity of estuaries might be allocated (eg to allow development of Māori agricultural land in fully allocated catchments). It might influence the treatment of *mātauranga Maori* as evidence (eg in legislative requirements to use “best available information”), as well as how *tikanga* is used to interpret other legal provisions (as has been done under the MACA Act). If a broader range of MPAs were required to *give effect* to *te Tiriti* or its principles (as the Marine Reserves Act currently must),²²⁰ then that has significant implications for strategic decisions about where they go, what they can restrict, and whether they are temporary or permanent.²²¹ Stronger *te Tiriti* clauses might also have implications for how power sharing and co-governance tools are used. It is interesting to consider section 33 of the RMA here.

A spotlight on section 33 of the RMA

The power to transfer decision-making to *mana whenua* has existed since the inception of the RMA, but has been used only once.²²² The proposed NBA, and other marine legislation, could put more framing around when that type of mechanism *should* or *should not* be used in the marine context, rather than just leaving it in the toolbox to gather dust.

That is part of a bigger conversation about what the shift to “giving effect” to *te Tiriti* principles means under a new system. The Waitangi Tribunal has noted that control over *taonga* in the marine environment should shift from being a settlement-based grievance process to a proactive management process that occurs as of right.²²³ That does not mean that all powers should be transferred under something like section 33, but it does point to a need to clarify why the tool is there and how it will be used.

The Randerson Panel has envisaged that (in the context of the NBA) this would be addressed in the agreements negotiated between *iwi* and councils, and clear principles could be included in legislation to guide how that would work.²²⁴ There are a number of possibilities; for example, recognition of customary marine title under the MACA Act could bring with it some expectation of a transfer of powers under the NBA (eg to act as a consent authority, not just to interpose a veto power) or Fisheries Act (eg to impose binding *rāhui* to halt fishing), and ancestral connections with *taonga* species could see some powers transferred under conservation legislation.

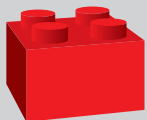


Umupuia marae

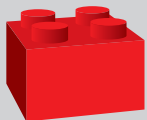
Raewyn Peart

An important lesson, perhaps, is that the system should tackle strategic issues about te Tiriti head-on and be more specific about what its objectives are (and how they will interact with other objectives). If it does not, it will likely be left to litigation in the courts to determine. It may not be immediately obvious what “giving effect to” or “complying with” te Tiriti means, but such general provisions could over time transform how a whole range of other parts of the system work.

An important cross-cutting role that a future system will need to perform is protecting the interests of mana whenua. This is not just about the outcomes that need to be achieved (eg protection of wāhi tapu sites) but also about *how* those outcomes are produced (eg processes that involve partnership or shared decision-making). The objectives the system has for te Tiriti o Waitangi, and how Treaty clauses are expressed, will be significant.



In performing all its other roles, the system could be expected to protect the interests of mana whenua.



Stronger and more consistent te Tiriti clauses could be deployed across marine legislation in the future. It could be made clearer what these clauses mean in practice and how te Tiriti objectives affect or interact with other objectives.

7.7 Concluding comments

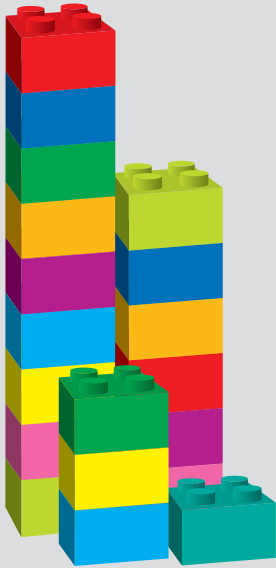
In this chapter we have considered what the normative foundations of a future system might be. The bedrock of a system will be the worldviews and ethics that underpin it. In the future, this is likely to be a mix of many different values, but there is potential for synergies between te ao Māori, ecocentrism and new approaches to green economics (eg the “doughnut” model) to steer us in a positive direction. That might see a softening of some of the neoliberal features that were established in the late 1980s and early 1990s.

Ethics need to be operationalised, and legal principles provide a way to do this. There are numerous choices on this front, not just in terms of the principles we adopt and how we express them in legislation, but also how we conceive of the relationships between them and how specific they are. At the more specific end of the scale, a future system could be more directive as to what it is seeking to achieve (and by when) for things like limit setting, making trade-offs, pursuing positive outcomes and allocating resources. Some objectives could, like in the context of climate change, be codified in legislation and an accountability framework established around them.

The recurrent theme in this chapter is that the current system is by no means clear about the different roles it is expected to perform and the objectives that should be driving them. In particular, it is not clear whether the current system adequately distinguishes limit setting from trade-offs, whether it has a legitimate role in determining how trade-offs are made above limits, and whether it is concerned with some forms of resource allocation.

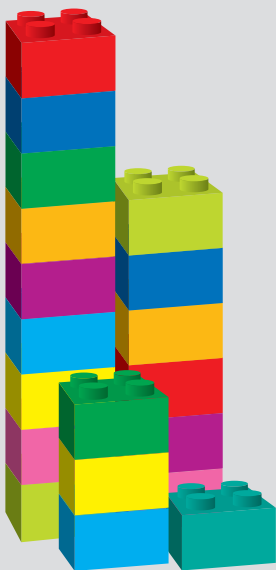
On the one hand, it is vital for accountability and action that reasonably specific objectives exist at the highest levels of legislation and are not treated just as politically driven policies. The biodiversity crisis, like the climate crisis, requires a predictable and planned pathway out of danger, not just management. And legislating for objectives gives them a stronger status and moral significance.²²⁵ That is equally the case when it comes to objectives relating to Māori, which in the past have tended to be relatively unclear and based on general clauses referencing the principles of te Tiriti. However, we also need to be wary of treating a particular solution as an objective in its own right, as it might create issues of path dependency and blind us to alternative options. MPAs are of particular interest here. Should we legislate a target for their deployment (eg for their coverage and location)? Or do we set general biodiversity objectives (eg maximum mortality of protected species) and allow all sorts of other tools (eg bycatch controls) to be deployed to achieve them?

Exactly what the system’s objectives might be is up for debate. So too are the tools we might use to achieve them, and that is what we now turn to in Chapter 8. As we do so, it is worth remembering the words of the late Bishop Manuhua Bennett, who described the Māori system of tikanga as “doing things right, doing things the right way, and doing things for the right reasons”.²²⁶ Our choice of tools – the right way of doing things – needs a strong ethical underpinning.



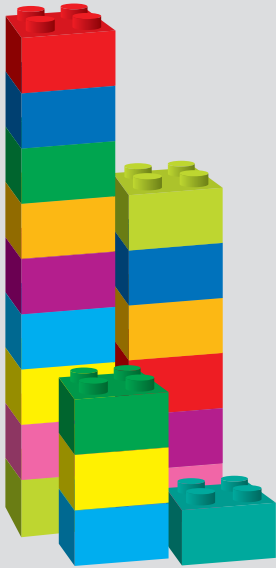
Summary of options for reform: Ethics, principles and objectives

- The normative foundation of a future system could be based on te ao Māori and its concepts and principles.
- The normative foundation of a future system could be based on a welfare economics view of the world, in which instrumental value is placed on the natural world as a collection of resources.
- A future system could be based on anthropocentrism, where the multifaceted interests and values of society are put at the forefront of decisions.
- A future system could be based on ecocentrism, where nature is recognised as having intrinsic value alongside humans, not just as a set of resources or serving human needs.
- The normative basis of a future system could be one in which synergies between te ao Māori and ecocentrism are placed at the heart of decision-making.
- Ecosystem-based management could form a core principle in a future system, expanding upon that of integrated management observable in frameworks like the RMA.
- Sustainable management could be recast as a broader concept of sustainability (eg te oranga o te taiao, or te mana o te moana), potentially embracing the social and economic dimensions of resource use and protection.
- The principle at the heart of fisheries management could be reframed from one of sustainable utilisation to one more like sustainable management or te oranga o te taiao at the core of frameworks like the RMA/NBA.
- A future system could seek to give effect to the principles of te Tiriti o Waitangi that have been developed in the courts, or recognise and adhere to te Tiriti itself.
- The normative core of a future system could be based on te ao Māori concepts such as kaitiakitanga, mana and mauri.
- Distributional equity or intra-generational equity could be expressly recognised as a principle in a future system, particularly to guide decisions about allocation.
- The principle of environmental justice could be strengthened in a future system, reflecting a broader understanding of the social elements of sustainability.
- There could be express recognition of ecological justice in a future system, embracing an ecocentric ethic and welcoming nature into human systems of justice.



Summary of options for reform: Ethics, principles and objectives *(continued)*

- Inter-generational equity could be strengthened in a future system by defining more specifically what the relative interests of current and future generations are, including with respect to restoring, enhancing and developing the marine space.
- A principle of procedural justice could be included or reflected more strongly in a future system, outlining common elements of all processes to ensure they are fair, including for mana whenua.
- A broader precautionary principle could be adopted at a more systemic and proactive level, including obligations to take positive action to enhance the resilience of the environment where future cumulative impacts are uncertain.
- A future system could provide more clarity as to what subsidiarity means in the marine environment, and when it is appropriate for decisions to be centralised or devolved to councils, mana whenua, or stakeholder groups.
- Principles in a future system could be made more specific and directive in legislation, giving greater clarity as to what outcomes are expected and less room for interpretation by policy makers and the courts.
- A future system could legislate for a much more specific set of objectives, including timeframes or milestones for achieving change.
- A future system could specifically define what an environmental limit is, and require such limits to be set for a defined list of things in the marine environment.
- A future system could be expected to guide more clearly how trade-offs are made between different forms of wellbeing above environmental limits. It could also reconceptualise the role from one of balancing things against each other to seeking win-win situations.
- The system could be expected to guide how rights to use or benefit from different resources are distributed.
- The system could be expected to guide how some existing rights might be reallocated to “better” uses or users over time.
- A future system could include an overarching set of allocative principles, which might look different for different resources. That could relate to the use to which resources are put, or which users can benefit from them. In particular, how the Tiriti provisions are worded will have implications for how resources and rights are allocated.



Summary of options for reform: Ethics, principles and objectives *(continued)*

- The system might take a more directive approach to allocation, where resources are reserved for uses or users that are seen as more deserving than others.
- The system could be reoriented to drive positive change more than it does at present. The concept of providing public goods and services could be broadened to include the active provision and protection of ecosystem services.
- A future system could legislate for measurable environmental enhancement objectives. These could reflect those contained in international fora (eg the Aichi biodiversity targets) and could relate to the deployment of particular tools, such as MPAs.
- A future system could provide formal mechanisms by which legally influential objectives could be set for achieving social and economic outcomes.
- A future system could contain objectives relating to particular sectors or activities (eg whether to expand them or phase them out), reflecting a more interventionist approach to resource or economic planning in the marine environment.
- In performing all its other roles, the system could be expected to protect the interests of mana whenua.
- Stronger and more consistent Te Tiriti clauses could be deployed across marine legislation in the future. It could be made clearer what these clauses mean in practice and how Te Tiriti objectives affect or interact with other objectives.

Endnotes

- 1 An aspiration contained in the government's aquaculture strategy.
- 2 For example, to protect specific places, safeguard particular species, enhance surrounding fisheries, or achieve overall biodiversity gains.
- 3 Dollar values for human life are possible, but they are generally descriptive (ie measuring value after the fact, eg by measuring traffic deaths against appetite for investment in safety measures) rather than normative (what a life ought to be worth).
- 4 Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation Synthesis Report* (Environmental Defence Society, Auckland, December 2018) at 54.
- 5 See generally Robert Joseph and others *Stemming the Colonial Tide: Shared Māori Governance Jurisdiction and Ecosystem-Based Management over the Marine and Coastal Seascape in Aotearoa New Zealand – Possible Ways Forward* (Ko Ngā Moana Whakauka and Te Mata Hautū Taketake – the Māori and Indigenous Governance Centre, Waikato, 2020).
- 6 Hirini Moko Mead *Tikanga Māori: Living by Māori Values* (revised edition, Huia Publishers, Wellington, 2016) at 14.
- 7 Ulrich Klein, "Belief-Views on Nature – Western Environmental Ethics and Māori World Views", (2002) 4 NZJEL L 81 at 104-106.
- 8 Robert Joseph and others *Stemming the Colonial Tide: Shared Māori Governance Jurisdiction and Ecosystem-Based Management over the Marine and Coastal Seascape in Aotearoa New Zealand – Possible Ways Forward* (Ko Ngā Moana Whakauka and Te Mata Hautū Taketake – the Māori and Indigenous Governance Centre, Waikato, 2020) at 49.
- 9 Benjamin Dimitrios Hanara and Anne-Marie Jackson *Tangaroa Ara Rau: Tangaroa the Atua of Human Movement* (Ngā Pae o te Māramatanga, ngā Ākonga Report 18INT01, 2019) at 3 (citations omitted).
- 10 Te Ahukaramū Charles Royal "Tangaroa – the sea - The importance of the sea" (12 June 2006) Te Ara - the Encyclopedia of New Zealand <www.TeAra.govt.nz/en/tangaroa-the-sea/page-1>.
- 11 Te Ahukaramū Charles Royal "Tangaroa – the sea - The importance of the sea" (12 June 2006) Te Ara - the Encyclopedia of New Zealand <www.TeAra.govt.nz/en/tangaroa-the-sea/page-1>.
- 12 Benjamin Dimitrios Hanara and Anne-Marie Jackson *Tangaroa Ara Rau: Tangaroa the Atua of Human Movement* (Ngā Pae o te Māramatanga, ngā Ākonga Report 18INT01, 2019) at 7.
- 13 Benjamin Dimitrios Hanara and Anne-Marie Jackson *Tangaroa Ara Rau: Tangaroa the Atua of Human Movement* (Ngā Pae o te Māramatanga, ngā Ākonga Report 18INT01, 2019) at 5.
- 14 See the story of Tinirau at Te Ahukaramū Charles Royal "Tangaroa – the sea - Tinirau and Kae" (12 June 2006) Te Ara - the Encyclopedia of New Zealand <www.TeAra.govt.nz/en/tangaroa-the-sea/page-3>.
- 15 Gerard Hutching and Carl Walrond "Marine conservation - Protected areas" (12 June 2006, updated 1 September 2015) Te Ara - the Encyclopedia of New Zealand <www.teara.govt.nz>.
- 16 Robert Joseph and others *Stemming the Colonial Tide: Shared Maori Governance Jurisdiction and Ecosystem-Based Management over the Marine and Coastal Seascape in Aotearoa New Zealand – Possible Ways Forward* (Ko Ngā Moana Whakauka and Te Mata Hautū Taketake – the Māori and Indigenous Governance Centre, Waikato, 2020) at 50.
- 17 Hirini Moko Mead *Tikanga Māori: Living by Māori Values* (revised edition, Huia Publishers, Wellington, 2016) at 16.
- 18 Richard L Revesz *Foundations of Environmental Law and Policy* (Oxford University Press, New York 1997) at 3.
- 19 See Tim Hazledine "Economics and the resource management system" in Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation – Working Paper 3* (Environmental Defence Society, Auckland, September 2018).
- 20 Enhancing some aspects of the environment (such as key fisheries habitat) might yield greater overall welfare for people than others (such as threatened species habitats).
- 21 RH Coase "The problem of social cost" (1960) 3 *Journal of Law and Economics* 1. The Coase theorem has since been developed mostly by other economists, based on a portion of Coase's article.
- 22 See Garrett Hardin "The Tragedy of the commons" (1968) 162 *Science* 1243.
- 23 See, for example, the description of property rights in Marilyn Bramley and Jeff McNeill "Up the creek and down the river: In-stream ecological values and property rights under the RMA" in Klaus Bosselmann and Vernon Tava (eds) *Water rights and sustainability* (New Zealand Centre for Environmental Law, Auckland, 2011) at 175.
- 24 See the economist's conception of wellbeing in Michael Pickford "Economic efficiency and the Resource Management Act" (2014) 18 NZJEL 149 at 153.
- 25 A limitation that Coase recognised explicitly.
- 26 On the myth of the rational actor, see David Orrell *Economyths: 11 Ways Economics Gets It Wrong* (Icon Books, London, 2010).
- 27 Lester B Lave "The Strategy of Social Regulation: Decision Frameworks for Policy" in Richard L Revesz *Foundations of Environmental Law and Policy* (Oxford University Press, New York 1997) at 85.
- 28 Kate Raworth *Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist* (Random House, London, 2017).
- 29 Mark Sagoff "The Economy of the Earth: Philosophy, Law and the Environment" in Richard L Revesz *Foundations of Environmental Law and Policy* (Oxford University Press, New York 1997).
- 30 See Tim Denne "Resource management law reform and economics" in Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation – Working Paper 3* (Environmental Defence Society, Auckland, September 2018). Mostly the developments are attributed to Jeremy Bentham and John Stuart Mill: see John Kenneth Galbraith *A History of Economics: The Past as the Present* (Penguin Books, London, 1987). Robert L Heilbroner *The Worldly Philosophers: The Lives, Times and Ideas of the Great Economic Thinkers* (7th ed, Simon & Schuster, New York 1953).
- 31 See the creative interpretations of the EEZ Act's te Tiriti clause in *Trans-Tasman Resources Ltd v Taranaki-Whanganui Conservation Board* [2020] NZCA 86.
- 32 See Klaus Bosselmann *The principle of sustainability: Transforming law and governance* (Ashgate Publishing, Surrey, 2008) at 49; Robyn Eckersley *The Green State: Rethinking Democracy and Sovereignty* (MIT Press, Cambridge, 2004), at 141.
- 33 See generally Christopher Stone "Should trees have standing? Towards legal rights for natural objects" (1972) 45 S Cal LR 450; and John Kleinig *Valuing Life* (Princeton University Press, Princeton, 1991); Robyn Eckersley *The Green State: Rethinking Democracy and Sovereignty* (MIT Press, Cambridge, 2004).
- 34 Tamar Stelling "Do lobsters and other invertebrates feel pain? New research has some answers" *The Washington Post* (online ed, Washington DC, March 10 2014).
- 35 Paul W Taylor "Respect for nature: A theory of environmental ethics" (Princeton University Press, Princeton, 1986) in Richard L Revesz *Foundations of Environmental Law and Policy* (Oxford University Press, New York 1997) at 32.
- 36 See Christopher Stone "Should trees have standing? Towards legal rights for natural objects" (1972) 45 S Cal LR 450.
- 37 Bob Jones "Anti-whaling outcry simply sizeism" *NZ Herald* (online ed, 7 August 2012).
- 38 Minister for Oceans and Fisheries "On-board cameras across the inshore fishing fleet" (2 July 2021).
- 39 See Ministry of Foreign Affairs and Trade "Joint statement against whaling" (media statement, 18 December 2017)..
- 40 Department of Conservation *The conservation of whales in the 21st century* (2004).
- 41 Raewyn Peart *Dolphins of Aotearoa: Living with New Zealand dolphins* (Craig Potton Publishing, Nelson, 2013).
- 42 Thomas White *In defense of dolphins: The new moral frontier* (Blackwell Publishing, Malden, 2007).
- 43 See Lori Cuthbert and Douglas Main "Orca Mother Drops Calf, After Unprecedented 17 Days of Mourning" *National Geographic* (online ed, Washington DC, 13 August 2018).
- 44 The latest estimate was 104 common dolphin captures in trawl fisheries for the 2014-15 fishing year. See ER Abraham and K Berkenbusch "Estimated captures of New Zealand fur seal, New Zealand sea lion, common dolphin, and turtles in New Zealand commercial fisheries, 1995-96 to 2014-15" (Ministry for Primary Industries, New Zealand Aquatic Environment and Biodiversity Report No 188, November 2017).
- 45 It is not a universal view; for example, some iwi have expressed an interest in harvesting marine mammals if and when the populations are at suitable levels.
- 46 See Klaus Bosselmann "The Concept of Sustainable Development" in Klaus Bosselmann, David Grinlinton and Prue Taylor (eds) *Environmental Law for a Sustainable Society* (2nd ed, New Zealand Centre for Environmental Law, Auckland 2013). at 101; Mark Christensen "Valuation of natural assets under the Resource Management Act" (2013) 17 NZJEL 291 at 298.
- 47 Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019) at 22.
- 48 David Young *Values as law: The history and efficacy of the Resource Management Act* (Victoria University of Wellington Institute of Policy Studies, Wellington, 2001) at 85.
- 49 SRobert Joseph and others *The Treaty, Tikanga Māori, Ecosystem-based Management, Mainstream Law and Power Sharing for Environmental Integrity in Aotearoa New Zealand – Possible Ways Forward* (Ko Ngā Moana Whakauka and Te Mata Hautū Taketake – the Māori and Indigenous Governance Centre, Waikato, 2019).

- 50 Robert Joseph and others *The Treaty, Tikanga Māori, Ecosystem-based Management, Mainstream Law and Power Sharing for Environmental Integrity in Aotearoa New Zealand – Possible Ways Forward* (Ko Ngā Moana Whakauka and Te Mata Hautū Taketake – the Māori and Indigenous Governance Centre, Waikato, 2019). Joseph points out that we need to take care here, given that Māori decision-makers are not only driven by traditional tikanga values; Māori corporations are increasingly powerful and have economic drivers.
- 51 Ulrich Klein, “Belief-Views on Nature – Western Environmental Ethics and Māori World Views”, (2002) 4 NZJEL L 81 at 104-106.
- 52 Christopher Stone “Should trees have standing? Towards legal rights for natural objects” (1972) 45 S Cal LR 450.
- 53 Te Ahukaramū Charles Royal (ed) *The Woven Universe: Selected writings of Rev Māori Marsden* (The estate of Rev Māori Marsden, Ōtaki, 2003) at 46 and 69.
- 54 Joseph Williams “Lex Aotearoa: An Heroic Attempt to Map the Maori Dimension in Modern New Zealand Law” (2013) 21 Wai L Rev 1.
- 55 See National Oceanic and Atmospheric Administration (NOAA) (6 December 2021) “Ecosystem-Based Management” National Marine Ecosystem Status <www.ecowatch.noaa.gov/about/>
- 56 See Sustainable Seas National Science Challenge “Why do we need EBM?” <www.sustainableseaschallenge.co.nz/>
- 57 Judi Hewitt and others “Proposed ecosystem-based management principles for New Zealand” (2018) November RM Journal 10.
- 58 Raewyn Peart, Alison Greenaway and Lara Taylor “Enabling Ecosystem-Based Management: Is Aotearoa New Zealand’s Legal Framework up to the Task?” (2019) 23 NZJEL 31 at 64.
- 59 Lara Taylor, Tania Te Whenua and Bonny Hatami *How current legislative frameworks enable customary management & ecosystem-based management in Aotearoa New Zealand – the contemporary practice of rāhui* (Sustainable Seas National Science Challenge, EBM Discussion Paper, April 2018).
- 60 Robert Joseph and others *Stemming the Colonial Tide: Shared Māori Governance Jurisdiction and Ecosystem-Based Management over the Marine and Coastal Seascape in Aotearoa New Zealand – Possible Ways Forward* (Ko Ngā Moana Whakauka and Te Mata Hautū Taketake – the Māori and Indigenous Governance Centre, Waikato, 2020) at 490-491. at 490-491.
- 61 Well-being of Future Generations (Wales) Act 2015 (UK).
- 62 See cl 8.
- 63 Nicholas Robinson “Re-conceptualising Sustainability: The Anthropocene Agenda” (2015) 11(7) RM Theory & Practice 99 at 108; Melinda Harm Benson and Robin Kundis Craig “The End of Sustainability” (2014) 27 Society & Natural Resources 777 at 778. at 778.
- 64 “The purpose of this Act is to provide for the utilisation of fisheries resources while ensuring sustainability”. See *Recreational Fishing Council Inc v Sanford Limited* [2009] NZSC 54 , [2009] 3 NZLR 438 at [30].
- 65 Fisheries Act 1996, s 13(2)(a).
- 66 UNCLOS, art 61(3). They must also consider cumulative effects on non-target species with a view to maintaining or restoring populations of such species to levels at which their reproduction is not seriously threatened.
- 67 UNCLOS, art 62(2).
- 68 Raewyn Peart *Voices from the Sea: Managing New Zealand’s Fisheries* (Environmental Defence Society, Auckland, 2018) at 33.
- 69 Raewyn Peart *Voices from the Sea: Managing New Zealand’s Fisheries* (Environmental Defence Society, Auckland, 2018).
- 70 *New Zealand Recreational Fishing Council & Ors v Sanford Limited* [2009] NZSC 45, [2009] 3 NZLR 438. at [21].
- 71 Raewyn Peart *Voices from the Sea: Managing New Zealand’s Fisheries* (Environmental Defence Society, Auckland, 2018) at 34.
- 72 Ministry of Fisheries *Operational Guidelines for New Zealand’s Harvest Strategy Standard* (2011) at 3.
- 73 Raewyn Peart *Voices from the Sea: Managing New Zealand’s Fisheries* (Environmental Defence Society, Auckland, 2018) at 37.
- 74 Fisheries New Zealand *The Status of New Zealand’s Fisheries 2020* (February 2021).
- 75 See *Royal Forest and Bird Protection Society v Minister of Fisheries* [2021] NZHC 1427.
- 76 *Legasea Rescue Fish Ika Rauora: A pathway to fish abundance and marine ecosystem recovery* (May 2020) at 18.
- 77 That might not be desirable if a single stock is the focus. For example, sometimes the abundance of some species might be too high for ecosystem stability (eg kina in the Hauraki Gulf) or for effective operation of the market (eg where snapper is abundant and the inability to obtain ACE cover for it prevents fishers from obtaining species that are often caught with it).
- 78 Philip Wheeler and others *Sustainable fisheries: Tiakina nga taonga Tangaroa, Report of the Fisheries Task Force to the Minister of Fisheries on the review of fisheries legislation* (Fisheries Task Force, Wellington, 1992).
- 79 Ministry for the Environment *Natural and Built Environments Bill* (Exposure Draft, 2021), cl 8; Ministry for the Environment *Natural and Built Environments Bill Parliamentary Paper on the Exposure Draft* (June, 2021).
- 80 Joseph Williams “He Aha te Tikanga Māori?” (paper presented to Mai I Te Ata Hāpara Hui, Te Wānanga o Raukawa, Ōtaki, August 2000) at 9. Law Commission *Māori Custom and Values in New Zealand Law* (NZLC SP9, 2001) at 28-40.
- 81 Carwyn Jones “A Māori Constitutional Tradition” (2014) 12 NZJPL 187 at 190; Joseph Williams, “Lex Aotearoa: An Heroic Attempt to map the Maori Dimension in Modern New Zealand Law” [2013] 21 Wai L Rev 1 at 2-5; Linda Te Aho “Tikanga Maori, historical context and the interface with Pakeha law in Aotearoa/New Zealand” [2007] NZ Ybk NZ Jur 4 at 11.
- 82 Robert Joseph and others *Stemming the Colonial Tide: Shared Māori Governance Jurisdiction and Ecosystem-Based Management over the Marine and Coastal Seascape in Aotearoa New Zealand – Possible Ways Forward* (Ko Ngā Moana Whakauka and Te Mata Hautū Taketake – the Māori and Indigenous Governance Centre, Waikato, 2020) at 55—56.
- 83 Toni Love “Incorporating Māori Approaches to Ecosystem Management in Marine Management” (2018) July Māori LR, as cited in Robert Joseph and others *Stemming the Colonial Tide: Shared Māori Governance Jurisdiction and Ecosystem-Based Management over the Marine and Coastal Seascape in Aotearoa New Zealand – Possible Ways Forward* (Ko Ngā Moana Whakauka and Te Mata Hautū Taketake – the Māori and Indigenous Governance Centre, Waikato, 2020) at 207.
- 84 Mason Durie *Te Mana, Te Kawanatanga – The Politics of Māori Self-Determination* (Oxford University Press, Melbourne, 1998), as cited in Robert Joseph and others *Stemming the Colonial Tide: Shared Māori Governance Jurisdiction and Ecosystem-Based Management over the Marine and Coastal Seascape in Aotearoa New Zealand – Possible Ways Forward* (Ko Ngā Moana Whakauka and Te Mata Hautū Taketake – the Māori and Indigenous Governance Centre, Waikato, 2020) at 208.
- 85 Aquaculture Steering Group *He Maara Mataitai – Ngangaru Ana* (date unknown).
- 86 Ministry for the Environment *Natural and Built Environments Bill*, cl 5.
- 87 Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation – Synthesis Report* (Environmental Defence Society, Auckland, December 2018) at 71.
- 88 *Huakina Development Trust v Waikato Valley Authority* [1987] 2 NZLR 188 (HC) at 210.
- 89 See, for example, Waitangi Tribunal *Ko Aotearoa Tenei: A Report into Claims Concerning New Zealand Law and Policy Affecting Māori Culture and Identity* (Wai 262, 2011).
- 90 *Trans-Tasman Resources Ltd v Taranaki-Whanganui Conservation Board* [2020] NZCA 86. See Matthew SR Palmer *The Treaty of Waitangi in New Zealand’s law and constitution* (Victoria University Press, Wellington, 2008). On the first detailed formulation of the principles, see *New Zealand Māori Council v Attorney General* [1987] 1 NZLR 641 (CA) [Lands Case].
- 91 Waitangi Tribunal *The Radio Spectrum Management and Development Final Report* (Wai 776, 1999) at 38-39.
- 92 Waitangi Tribunal *Te Maunga Railways Land Report* (Wai 315, 1994) at 67-68.
- 93 See Richard Boast “The Treaty of Waitangi and environmental law” in Rob Harris (ed) *Handbook of environmental law* (Royal Forest and Bird Protection Society of New Zealand, Wellington, 2004) at 517.
- 94 David R Keller (ed) *Environmental ethics: The big questions* (Wiley-Blackwell, Chichester (West Sussex), 2010) at 418.
- 95 Ezekiel Hudspith “Freshwater Management in New Zealand: a Challenge for Ecology, Equity and Economic Efficiency” (2013) 16 NZJEL 277 at 285.
- 96 Kenneth Palmer “The Resource Management Act 1991” in Derek Nolan (ed) *Environmental and Resource Management Law* (5th ed, LexisNexis, Wellington, 2015). at 111-112; World Commission on Environment and Development *Our common future* (Oxford University Press, Oxford, 1987) at 43.
- 97 Ministry for the Environment *Report of the review group on the Resource Management Bill* (1991) at [3.3]; *St Columba’s Environmental House Group v Hawkes Bay Regional Council* [1994] NZRMA 560 (PT) at 528.
- 98 See Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation – Synthesis Report* (Environmental Defence Society, Auckland, December 2018) at 114.
- 99 Fisheries New Zealand “Undue adverse effects test for marine farms” (5 July 2021) Ministry for Primary Industries <www.mpi.govt.nz/>
- 100 On indigenous environmental justice, see Meg Parsons, Karen Fisher and Roa Petra Crease

- De-colonising blue spaces in the Anthropocene: Freshwater management in Aotearoa New Zealand* (Palgrave Macmillan, Cham (Switzerland), 2021).
- 101 On infrastructure failures, underinvestment and its impacts, see New Zealand Productivity Commission *Local government funding and financing* (November 2019); Cabinet Minute of Decision "Strengthening the Regulation of Drinking Water, Wastewater and Stormwater" (1 July 2019) CAB-19-MIN-0332.
- 102 See generally Paul W Taylor *Respect for nature: A theory of environmental ethics* (Princeton University Press, Princeton, 1986) in Richard L. Revesz *Foundations of environmental law and policy* (Oxford University Press, New York, 1997); Christopher Stone "Should trees have standing? Towards legal rights for natural objects" (1972) 45 S Cal LR 450; Robyn Eckersley *Environmentalism and political theory: Toward an ecocentric approach* (State University of New York Press, New York, 1992).
- 103 See Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation – Synthesis Report* (Environmental Defence Society, Auckland, December 2018) at 58.
- 104 See Meg Parsons, Karen Fisher and Roa Petra Crease *De-colonising blue spaces in the Anthropocene: Freshwater management in Aotearoa New Zealand* (Palgrave Macmillan, Cham (Switzerland), 2021).
- 105 See generally Edith Brown Weiss *In Fairness to Future Generations* (United Nations University Press, Tokyo, 1989); Edith Brown Weiss "Intergenerational Justice and International Law" in Salvino Busuttil and others (eds) *Our Responsibilities to Future Generations* (Foundation for International Studies, Malta, 1990); Klaus Bosselmann *The principle of sustainability: Transforming law and governance* (Ashgate Publishing, Surrey, 2008).
- 106 Kenneth Palmer "Origins and Guiding Ideas of Environmental Law" in Klaus Bosselmann, David Grinlinton and Prue Taylor (eds) *Environmental Law for a Sustainable Society* (2nd ed, New Zealand Centre for Environmental Law, Auckland 2013); Resource Management Act 1991, s 5(2)(a); Conservation Act 1987, ss 2 and 6(c).
- 107 See Gerd Winter "A fundament and two pillars: The concept of sustainable development 20 years after the Brundtland Report" in Hans Christian Bugge and Christina Voigt (eds) *Sustainable development in international and national law* (Europe Law Publishing, Groningen (Neds), 2008) at 28.
- 108 Klaus Bosselmann *The principle of sustainability: Transforming law and governance* (Ashgate Publishing, Surrey, 2008) at 34.
- 109 Edith Brown Weiss "Intergenerational Justice and International Law" in Salvino Busuttil and others (eds) *Our Responsibilities to Future Generations* (Foundation for International Studies, Malta, 1990), from 98.
- 110 The gift can refer to any relevant oral tradition/customary practice.
- 111 See generally David Miller "Justice" (26 June 2017) Stanford Encyclopedia of Philosophy <<https://plato.stanford.edu/entries/justice/#ProcVersSubsJust>> at [2.3].
- 112 See, for example, Ben France-Hudson "The Kermadec/Rangitāhua Ocean Sanctuary: Expropriation-free but a breach of good faith" [2016] RM Theory & Practice 55.
- 113 Waitangi Tribunal *Ko Aotearoa Tenei: A Report into Claims Concerning New Zealand Law and Policy Affecting Māori Culture and Identity* (Wai 262, 2011).
- 114 *Murray v Whakatane District Council* [1999] 3 NZLR 276 (HC) at 46.
- 115 See D Sheppard "The Resource Management Act – from principles to practice" in Trevor Daya-Winterbottom (ed) *Frontiers of resource management law* (Thomson Reuters, Wellington, 2012) at 226.
- 116 For example, cross-boundary disputes that are non-notified.
- 117 Barry Barton, Kimberley Jane Jordan and Greg Severinsen *Carbon capture and storage: Designing the legal and regulatory framework for New Zealand* (Centre for Environmental, Energy and Resources Law, University of Waikato, 2013) at 78.
- 118 See Chapter 8 of the project's working paper on science and information in the fisheries system.
- 119 *Wellington International Airport v Air New Zealand* [1993] 1 NZLR 671 (CA) at 675.
- 120 See Meg Parsons and Lara Taylor "Why Indigenous knowledge should be an essential part of how we govern the world's oceans" *The Conversation* (online ed, 8 June 2021).
- 121 New Zealand Government "Kermadec Ocean Sanctuary Bill introduced" (press release, 9 March 2016)
- 122 PEW "Global Ocean Legacy" (6 July 2018) <<https://www.pewtrusts.org/en/projects/archived-projects/global-ocean-legacy>>
- 123 Ministry for the Environment *Departmental disclosure statement: Kermadec Oceans Sanctuary Bill* (26 February 2016).
- 124 Cabinet Paper "Establishment of a Kermadec Ocean Sanctuary" (1 September 2015, Cabinet Economic Growth and Infrastructure Committee).
- 125 Kermadec Ocean Sanctuary Bill 2016 (120-2), cl 3.
- 126 At the time of writing, we understand that an announcement on the future of the sanctuary is imminent.
- 127 Ben France-Hudson "The Kermadec/Rangitāhua Ocean Sanctuary: Expropriation-free but a breach of good faith" [2016] RM Theory & Practice 55 at 61.
- 128 The legal property right conferred by fisheries quota is a proportion of the TACC rather than a set amount of fish, so the quota right is not technically extinguished by this measure (it simply could not be utilised until the TACC was increased). But a proportion of zero remains zero, effectively rendering the quota of no value (and in perpetuity assuming the Ocean Sanctuary is a permanent feature). The practical effect is largely the same.
- 129 When the QMS was introduced, nominal quota was created for FMA10 in the event that a commercial fishery was established there. The reasons for the lack of development of a commercial fishery in FMA10 include the presence of the marine reserve in the territorial sea which prevents a coastal fishery, the benthic protection area which prevents bottom trawling within the EEZ and the distance of the islands from the mainland. A small part of the catch of high migratory species (4 percent) such as bigeye tuna, swordfish and moonfish was being taken from within FMA10, but as the QMA for these species includes the entire country's EEZ, they could also be caught outside the Sanctuary area by quota owners and would not be "extinguished" in the same way.
- 130 16 percent is held by Te Ohu Kaimoana, and has yet to be distributed to iwi: see Cabinet Paper "Establishment of a Kermadec Ocean Sanctuary" (1 September 2015, Cabinet Economic Growth and Infrastructure Committee); Kate Allan "A Kermadec/Rangitāhua Ocean Sanctuary: Issues and insights into marine protection processes" (LLB (Hons) Dissertation, Victoria University of Wellington, 2017).
- 131 Ben France-Hudson "The Kermadec/Rangitāhua Ocean Sanctuary: Expropriation-free but a breach of good faith" [2016] Resource Management Theory and Practice 55 at 78.
- 132 Ministry for the Environment *A new Marine Protected Areas Act: Consultation document* (ME 1224, 1 January 2015).
- 133 Toni Love "The Kermadecs conundrum: Marine protected areas and democratic process" (2017) 13(2) Policy Quarterly 17 at 20.
- 134 See United Nations Framework Convention on Climate Change 1771 UNTS 107 (signed 9 May 1992, entered into force 21 March 1994), art 3.3: "Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures."
- 135 Which in turn emerged from the less ambitious principle of "no harm" and the associated duty to avoid "transboundary harm", which developed as interstate obligations rather than environmental protections per se.
- 136 *Sustain Our Sounds Inc v New Zealand King Salmon Co* [2014] NZSC 40, [2014] 1 NZLR 673.
- 137 Fisheries Act 1996, s 10; EEZ Act, ss 34, 61.
- 138 See *Trans-Tasman Resources Ltd v Taranaki-Whanganui Conservation Board* [2020] NZCA 86; Environmental Protection Authority *Decision on Marine Consent Application: Chatham Rock Phosphate Limited: to mine phosphorite nodules on the Chatham Rise* (February 2015).
- 139 See cl 15.
- 140 See generally Greg Severinsen "Letting our standards slip? Precaution and the standard of proof under the Resource Management Act 1991" (2014) 18 NZJEL 173; Catherine Iorns Magallanes and Greg Severinsen "Diving in the deep end: Precaution and seabed mining in New Zealand's exclusive economic zone" (2015) 13 NZJPL 201.
- 141 Catherine Iorns Magallanes "The precautionary principle in the New Zealand Fisheries Act: Challenges in the New Zealand Court of Appeal" (Victoria University of Wellington Legal Research Paper 59, May 2014).
- 142 Compare Allison Arthur-Young "Climate Change" in Derek Nolan (ed) *Environmental and Resource Management Law* (5th ed, LexisNexis, Wellington, 2015). at 1150.
- 143 See generally Marilyn Bramley "Institutional and governance structures of environmental law" in Peter Salmon and David Grinlinton (eds) *Environmental law in New Zealand* (1st ed, Thomson Reuters, Wellington, 2015) at 398.
- 144 See Resource Management Act 1991, pt 6A, ss 25A, 43-58A, 62(3), 67(3), 75(3).
- 145 Resource Management Act 1991, sch 1, cl 27.
- 146 In that regional councils do not have powers under it.
- 147 Marine and Coastal Area (Takutai Moana) Act 2011, s 68.
- 148 Such as under section 33 of the RMA, or fisheries plan making under the Fisheries Act.
- 149 Resource Management Act 1991, s 7(b); Ezekiel Hudspith "Freshwater management in New Zealand" (2013) 16 NZJEL 277 at 284.
- 150 See Joseph Sax "The Public Trust Doctrine in Natural Resource Law: Effective Judicial

- Intervention" (1970) 68 Mich L Rev 471.
- 151 Some, such as a direction to "avoid" effects, have a more directive approach and can operate as "limits". See *Environmental Defence Society Inc v New Zealand King Salmon Co Ltd* [2014] NZSC 38, [2014] 1 NZLR 593.
- 152 Although litigation underway at the time of writing is testing whether the objectives in the Act are aspirations or duties.
- 153 Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation - Synthesis Report and Next Steps (Summary for Policy Makers)* (Environmental Defence Society, Auckland, February 2019).
- 154 See Inga Carlman "The Resource Management Act 1991 Through External Eyes" (2007) 11 NZJEL 181.
- 155 Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation Synthesis Report* (Environmental Defence Society, Auckland, December 2018) at 94.
- 156 See Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018).
- 157 The "floor" for a stock, reflected in the concept of soft and hard limits in the Harvest Strategy Standard, does not have a statutory basis and its legal influence could be clearer (see Chapter 8).
- 158 For example, the Auckland Council decided against taking measures to control cats in areas containing threatened species vulnerable to cats, which may be relevant in the future when it comes to measures to prevent toxoplasmosis in the Māui dolphin.
- 159 See Chapter 8 on the role of the Harvest Strategy Standard in determining rebuild times under the Fisheries Act.
- 160 See *Royal Forest and Bird Protection Society v Minister of Fisheries* [2021] NZHC 1427.
- 161 New Zealand Companion Animal Council *Companion Animals in New Zealand 2016* (June 2016).
- 162 See Submarine Cables and Pipelines Protection Act.
- 163 See cl 7.
- 164 Partly reflecting that the tools in the RMA to achieve that limit rely on preventing activities rather than requiring restoration. Other mechanisms, including government funding, are intended to restore and enhance degraded wetlands.
- 165 Unless overall pressure is reduced by amending the TAC.
- 166 The NZCPS essentially imposes "limits" on natural character through strong "avoidance" policies, which were recognised by the Supreme Court in *King Salmon*.
- 167 *Trans-Tasman Resources Ltd v Taranaki-Whanganui Conservation Board* [2020] NZCA 86 at [221].
- 168 See the spotlight on the case of Tarakihi and the Harvest Strategy Standard in Chapter 8.
- 169 Tim Denne "Resource management law reform and economics" in Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation - Working Paper 3* (Environmental Defence Society, Auckland, September 2018).
- 170 See New Zealand Productivity Commission *Better Urban Planning: Final Report* (February 2017) at 258, citing Caroline Miller *Culture and Capability within the New Zealand Planning System* (New Zealand Productivity Commission, December 2015); *Report of the Minister for the Environment's Resource Management Act 1991 Principles Technical Advisory Group* (CR 129, 1 July 2012) from 35.
- 171 Compare the oft cited words of Hon Simon Upton upon the second reading of the Bill that would become the RMA: (4 July 1991) 516 NZPD 3019–3020.
- 172 See New Zealand Productivity Commission *Better urban planning: Final Report* (February 2017) at 122, citing the submission of Caroline Miller *Culture and Capability within the New Zealand Planning System* (New Zealand Productivity Commission, December 2015).
- 173 How value-based trade-offs are to be made under the Fisheries Act has also been left unclear; the concept of utilisation in the purpose of the Act embraces social, economic and cultural wellbeing, but in practice controls on catch are driven by biological considerations rather than the broader values of communities.
- 174 Ministry for the Environment *Natural and Built Environments Bill* (Exposure Draft, 2021), cl 8; Ministry for the Environment *Natural and Built Environments Bill Parliamentary Paper on the Exposure Draft* (June, 2021).
- 175 Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation - Synthesis Report and Next Steps* (Summary for Policy Makers) (Environmental Defence Society, Auckland, February 2019) at 106. Compare Inga Carlman "The Resource Management Act through external eyes" (2007) 11 NZJEL 181.
- 176 Although the courts have hinted that the merits of applications close in time may sometimes be compared, on the understanding that one of them might better promote sustainable
- management; see *Central Plains Water Trust v Synlait Ltd* [2009] NZCA 609, [2010] 2 NZLR 363 (CA) at [89]; *Synlait Ltd v Central Plains Water Trust* [2010] NZSC 32, [2010] NZRMA 257; *Ngai Tahu Property Ltd v Central Plains Water Trust* [2009] NZSC 24.
- 177 Mining proposals on the Chatham Rise were not consented in the end, partly due to the presence of a benthic protection area, but there is no legislative requirement or even clear link for that to have to be considered under the EEZ Act.
- 178 This term is deliberate. It is not just the Crown that could do such things. Depending on institutional arrangements, this could involve partnership with mana whenua.
- 179 That is still true of aquaculture, despite a Treaty settlement guaranteeing Māori 20 percent of new aquaculture space (see spotlight below).
- 180 Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation - Synthesis Report and Next Steps (Summary for Policy Makers)* (Environmental Defence Society, Auckland, February 2019).
- 181 New Zealand Productivity Commission *Better urban planning: Final Report* (February 2017) at 107.
- 182 Resource Management Act 1991, pt 7A; *Central Plains Water Trust v Synlait Ltd* [2009] NZCA 609, [2010] 2 NZLR 363.
- 183 See Ministry for Primary Industries "Fisheries New Zealand Review of Sustainability Measures: Overview of legislative and other requirements" <www.mpi.govt.nz>; and *New Zealand Recreational Fishing Council Inc v Sanford Ltd* [2009] NZSC 54, [2009] 3 NZLR 438.
- 184 That might exclude many fishers who are unable to upgrade their gear, but support could be forthcoming.
- 185 See Greenhouse Gas Geological Sequestration Act 2008 (Vic), ss 42, 96(1)(b), 98(2)(b); Meredith Gibbs "The Regulation of Geological Storage of Greenhouse Gases in Australia" in Ian Havercroft, Richard Macrory and Richard Stewart *Carbon Capture and Storage: Emerging Legal and Regulatory Issues* (Hart Publishing, Oxford, 2011) at 173.
- 186 *Ngāi Tai ki Tāmaki v Minister of Conservation* [2018] NZSC 122.
- 187 *LegaSea Rescue Fish Ika Rauora: A pathway to fish abundance and marine ecosystem recovery* (May 2020) at 19.
- 188 In Canada, some have suggested that a key reason for the success of MPA network rollout has been the set of management measures established around them, including school groups engaging in citizen science projects to survey beach and intertidal habitats. This could form part of a broader environmental research strategy suggested by the Parliamentary Commissioner for the Environment (see Chapter 10).
- 189 Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation - Synthesis Report and Next Steps (Summary for Policy Makers)* (Environmental Defence Society, Auckland, February 2019) at 104.
- 190 New Zealand Productivity Commission *Better urban planning: Final Report* (February 2017) at 39.
- 191 New Zealand Productivity Commission *Better urban planning: Final Report* (February 2017) at 44.
- 192 Well-being of Future Generations (Wales) Act 2015, s 4.
- 193 Well-being of Future Generations (Wales) Act 2015, s 3(1).
- 194 For example, net gain offsetting, biobanking, development contributions, green taxes etc (see Chapter 8). Currently, the tools the RMA provides are overwhelmingly linked to preventing or mitigating adverse effects rather than making people provide benefits. See Resource Management Act 1991, s 108AA; Greg Severinsen "Glass half empty or glass half full? Adverse effects, positive effects and conditions under the Resource Management Act 1991 and Resource Legislation Amendment Bill 2015" (2016) 11(9) BRMB 110.
- 195 See the review by Bethan C O'Leary and others "Effective Coverage Targets for Ocean Protection" (2016) 9 Conservation Letters 398.
- 196 World Parks Congress "A strategy of innovative approaches and recommendations to enhance implementation of marine conservation in the next decade" (25 November 2014) IUCN <www.iucn.org>.
- 197 World Parks Congress "A strategy of innovative approaches and recommendations to enhance implementation of marine conservation in the next decade" (25 November 2014) IUCN <www.iucn.org>
- 198 *Increasing marine protected area coverage for effective marine biodiversity conservation* WCC-2016-Res-050-EN (2016).
- 199 The High Ambition Coalition for Nature and People (HAC) was launched by France and Costa Rica at the One Planet Summit on Biodiversity in 2021. One of the key aims of the HAC is to advocate for the adoption of a new target for the protection of 30 percent of terrestrial and marine spaces by 2030 at the Conference of the Parties to the CBD to be held in 2021. Refer High Ambition Coalition "Why 30x30?" (12 January 2021) <www.hacfornatureandpeople.org/>

- 200 Open-ended Working Group on the Post-2020 Global Biodiversity Framework *Zero Draft of the Post-2020 Global Biodiversity Framework* (IUCN, Kunming, China, CBD/WG2020/2/3 February 2020).
- 201 Office of the Prime Minister's Chief Science Advisor *The Future of Commercial Fishing in Aotearoa New Zealand* (February 2021) at 116.
- 202 Although some exceptions are still provided for.
- 203 Department of Conservation *Te Mana o Te Taiao – Aotearoa New Zealand biodiversity Strategy 2020* (Department of Conservation, Wellington, August 2020) at 53, see objectives 10.3.3-10.5.3; objectives 10.6.1-10.6.3; and objectives 12.1.1-12.7.3.
- 204 Department of Conservation *Te Mana o Te Taiao – Aotearoa New Zealand biodiversity Strategy 2020* (Department of Conservation, Wellington, August 2020)
- 205 Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018) at 101.
- 206 *Resolution on the Regulation of Ocean Fertilization* Res LC-LP.1 (2008) at [2].
- 207 *Resolution on the Regulation of Ocean Fertilization* Res LC-LP.1 (2008) at [8].
- 208 For an interesting account of the rise of agriculture, see Jared Diamond *Guns, Germs and Steel: The Fates of Human Societies* (WW Norton, New York, 1997).
- 209 See Raewyn Peart *Farming the sea* (Environmental Defence Society, Auckland, 2019), ch 7. For example, an industry itself (or parts of it) could collapse due to biosecurity incursions.
- 210 Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018).
- 211 Jared Diamond *Collapse: How Societies Choose to Fail or Survive* (2nd Edition, Penguin Books, London, 2011).
- 212 See Ellie Hooper "What is seabed mining and why does it threaten the oceans?" (6 August 2020) Greenpeace NZ <www.greenpeace.org/aotearoa>; and Kiwis Against Seabed Mining "Protect Our Seabed" (19 January 2022) <www.kasm.org.nz>
- 213 Although the difference, of course, is that the Crown *owns* the petroleum resource so it is not a revolutionary idea to say that it can determine whether or not it is extracted.
- 214 For example, the objectives of the Climate Change Response Act are very specific (beyond just a general reduction of greenhouse gas emissions), and restrictions imposed to prevent the transmission of Covid-19 have been swift and severe (eg national lockdowns).
- 215 See Chapter 3.
- 216 See Robert Joseph and others *The Treaty, Tikanga Māori, Ecosystem-based Management, Mainstream Law and Power Sharing for Environmental Integrity in Aotearoa New Zealand – Possible Ways Forward* (Ko Ngā Moana Whakauka and Te Mata Hautū Taketake – the Māori and Indigenous Governance Centre, Waikato, 2019).
- 217 See Ministry for the Environment *Natural and Built Environments Bill* (Exposure Draft, 2021), cl 6; compare *Ngāi Tai Ki Tāmaki Tribal Trust v Minister of Conservation* [2018] NZSC 122.
- 218 *Ngāi Tai ki Tāmaki Tribal Trust v Minister of Conservation* [2018] NZSC 122.
- 219 *Ngāi Tai ki Tāmaki Tribal Trust v Minister of Conservation* [2018] NZSC 122.
- 220 By virtue of the direction in the Conservation Act applying to all legislation administered by the Department of Conservation.
- 221 Developments in this area remain to be fully tested in the courts. For example, an obligation to give effect to the principles of te Tiriti applies across all legislation administered by the Department of Conservation, including the Marine Reserves Act. To what extent that would prevent marine reserves from being deployed on a large scale is an interesting one.
- 222 Resource Management Act 1991, s 33; and Tūwharetoa Māori Trust Board "Section 33 Transfer with Waikato Regional Council" (media statement, 31 July 2020). The Council transferred water monitoring functions around Lake Taupō to Ngāti Tūwharetoa.
- 223 Waitangi Tribunal *Ko Aotearoa Tenei: A Report into Claims Concerning New Zealand Law and Policy Affecting Māori Culture and Identity* (Wai 262, 2011) at 286.
- 224 Resource Management Review Panel *New Directions for Resource Management in New Zealand* (June 2020), ch 3.
- 225 See New Zealand Productivity Commission *Low-emissions economy: Final Report* (August 2018) at 221, citing Richard Macrory *Regulation, Enforcement and Governance in Environmental Law* (2nd Edition, Bloomsbury Publishing, London 2014) at 264.
- 226 Robert Joseph and others *The Treaty, Tikanga Māori, Ecosystem-based Management, Mainstream Law and Power Sharing for Environmental Integrity in Aotearoa New Zealand – Possible Ways Forward* (Ko Ngā Moana Whakauka and Te Mata Hautū Taketake – the Māori and Indigenous Governance Centre, Waikato, 2019).

8 Reconsidering the toolkit



Mussel harvesting, Coromandel

8.1 Introduction

A “tool” is not a term that has a firm definition when it comes to the oceans management system. We are using it very broadly to mean any form of public intervention that influences people’s behaviour when interacting with the oceans. Tools can be as diverse as a biodiversity strategy, a regional coastal plan, a mining permit, a resource rental, a primary school syllabus, a fisheries sustainability measure, a rāhui, a green tax, a marine reserve or a disclosure requirement for companies. Even something like a property right can be considered to be a tool.

Sometimes tools exist in close-knit ecosystems that rely on connections between each other to function well (eg a regional coastal plan contains policies under which a resource consent application is considered). Other tools only stray loosely and occasionally into each other’s orbits (especially when they are housed within different statutes, such as fisheries plans and regional coastal plans). They can be deployed by different institutions including government ministries, councils, semi-autonomous agencies such as the EPA or Maritime New Zealand, or iwi/hapū.

Tools in the current system are too diverse to be able to provide a comprehensive list, but the table below provides some sense of what they include.¹ Many are provided for within statutory frameworks, although some (eg various strategies, subsidies or advertising campaigns) are non-statutory.

The existing system contains many things that can be regarded as “tools”. They can have quite different purposes, operate in fundamentally different ways, and be looked at in different degrees of granularity. All of them are ways in which the system intervenes to shape people’s behaviour.

Because we are concerned with the system as a whole, rather than the siloed reform of particular statutory frameworks,² we do not intend to provide an exhaustive account of every possible tool that could be reformed. We are primarily interested in the *types* of tools that could be used, and the *ways* in which they could be designed. Some specific options for reform emerge during discussion, but it is important not to lose the

RMA	EEZ Act	Conservation legislation	Maritime Transport Act	Biosecurity Act
NPS and the NZCPS	Regulations	Conservation management strategies	Marine protection rules	National and regional pest management plans
NESs	EEZ policy statements	Management plans	Maritime rules	National and regional pathway management plans
Regulations	Marine permits	Regulations	Navigation bylaws	Craft risk management standards and plans
Regional policy statements	Decommissioning plans	Wildlife sanctuaries	Maritime registry	Quarantine areas
Regional coastal plans	Enforcement orders and abatement notices	Concessions	Maritime levies	Agreements for readiness and response
Coastal permits and other resource consents		Marine reserves	Emergency dumping permits	Levy orders
Abatement notices and enforcement orders		Marine mammal sanctuaries	Marine oil spill response strategy and contingency plans	Restricted place and controlled area declarations
			NZ oil pollution fund	Biosecurity database

Figure 8.1: A selection of statutory tools provided for in the current system (this is a small snapshot of tools available)

forest for the trees. With this in mind, over the course of the next three chapters, we explore the toolkit through a series of categories (regulatory, non-regulatory, spatial and strategic/integrative tools) rather than traversing specific statutory frameworks (eg tools under the Fisheries Act, RMA or Marine Reserves Act).

That said, it is also useful to get a sense of what it would be possible to achieve without fundamental overhaul. If adding a new tool here or there – such as a resource rental, a new tax or an integrated oceans policy statement – might fix some problems, it might be preferable to do that rather than immediately jumping to more dramatic and expensive measures that may take many years to implement. Indeed, some have observed with regret that Aotearoa New Zealand tends to jump to complex legislative reform agendas when simpler solutions might suffice.³ We may not need to overhaul the entire toolkit.

This project is concerned with the toolkit at a systemic level, rather than exploring every single potential tool. We look at different categories, including regulatory, non-regulatory, spatial and strategic/integrative tools.

8.2 The relationship between tools and other themes

Before exploring different categories of tools, it is worth thinking about their relationship with other themes. First, tools can be designed to perform specific *roles* (see Chapter 7). Sometimes multiple tools can be used to perform a single kind of role. For example, environmental limits can be set via prohibited activity standards under the RMA, catch limits under the Fisheries Act, or the establishment of a marine reserve under the Marine Reserves Act. But a single tool can also multitask. This is particularly noticeable under the RMA where a regional coastal plan and associated consents can be concerned with limit setting, dispute resolution, making value-based trade-offs, protecting Māori interests and allocating some marine resources.

Secondly, every tool will be designed to achieve one or more *objectives* (see Chapter 7). This means that it is difficult to evaluate which tools would be “best” without first determining exactly what we are wanting them to achieve. For example, whether a market-based or permitting system for allocating fishing rights would be preferable might depend on whether efficiency and certainty, or equity and flexibility, were seen as more important.

Thirdly, principles can themselves be a kind of tool when they are “operational” in nature (see Chapter 7). For example, the purpose and principles of the RMA and Fisheries Act, including the Tiriti provisions, are themselves tools that influence the behaviour of decision-makers, and they need to be carefully defined.

Fourthly, different tools can reflect different worldviews (see Chapter 7). For example, some might consider it wrong to use tools that put a price on nature, even if charging people would be effective in reducing overall damage. Māori might consider that no-take MPAs are inappropriate if they sever ancestral connections, even if they are one way to improve biodiversity and fish stocks.

Finally, tools are intimately linked to legislative arrangements (see Chapter 11), because many require statutory backing. The statutory framework within which they are located, including the purpose for which they are deployed, is therefore significant for how they operate.

The toolkit of a future system is closely related to other themes, including the roles the system is expected to perform, the worldviews, principles and objectives that underpin it, and legislative design choices.



Oyster farm, Coromandel harbour

Raewyn Peart

8.3 Regulatory tools

Tools are about influencing people's behaviour, but they can do so in quite different ways. The defining feature of regulatory tools is that they have teeth – they can result in sanctions on people who do not comply with them. Usually, they tell people what they cannot do. Sometimes they tell people what they *must* do, although positive duties in the environmental context are usually triggered by people choosing to do something else first, which invokes a quid pro quo for doing so (eg an application for a coastal permit triggering a requirement to provide environmental enhancement).

Many might associate regulatory tools with command and control regulation such as that found in the provisions of the RMA (eg you cannot discharge a contaminant without consent) or Fisheries Act sustainability measures (eg you cannot use a particular method of fishing). Planning and consenting frameworks under the RMA and EEZ Act are, at root, comprised of regulatory tools and we look at those further below.⁴ However, regulatory tools in the oceans management system include a much wider diversity of interventions. For example, product stewardship schemes can be used to manage the lifecycle of plastic products that may end up in the marine environment. Some regulatory tools may not actually prevent or even control people's behaviour, but instead require reporting. For example, some have suggested that recreational fishers be licensed (a regulatory intervention), not to prevent their access to fish, but rather to (among other things) ensure that accurate information about their catch (and thus overall impacts on fish stocks) is obtained.

Regulatory tools will be vital in a future system. In particular, they are necessary to perform the role of setting environmental limits, although they can also be used to discharge other roles. We can use regulation to make trade-offs above limits (eg considering through consent processes whether the harm of a proposal is worth the benefit), fulfil te Tiriti obligations (eg including mana whenua in regulatory decision-making processes, protecting places of significance to Māori or imposing measures like rāhui), and make allocative choices (eg through a first in time consenting process or tendering process).

Below, we consider types of regulatory tool that could be used, or changed, in a future system. The term “regulation” covers many things, and there are myriad options for reform on this front. A lot of them involve targeted change to specific regulatory tools,⁵ and while we touch on some options below, this project is about higher-level questions and cannot cover all possibilities of detailed design. We begin by looking at how “framework” type regulatory tools – loosely described as planning

and consenting – could be deployed differently. We then consider the more specific tool of “environmental limits” and what that could look like in different legislative contexts, before considering how the concept of “rights” (including property rights, other rights to use resources, and human/environmental rights) could be rethought. Finally, we look at emergency orders, rāhui and some tools under “non-marine” legislation that warrant attention.

Regulatory tools tell people what they must do, must not do, or what they can do subject to conditions. They can be enforced. But regulatory tools are much more diverse than just command and control regulation. There are many options for reforming the regulatory toolkit on a whole range of fronts.

8.4 Planning and consenting

It is worth considering the place of wider planning frameworks in a future system. Overall, they are regulatory in nature, but they provide more flexibility for decision-making than just a list of prohibited activities and standards.⁶ A good place to start is with the RMA, which is generally regarded as the home of “planning”. Under the framework of the Act, a complex array of instruments has developed comprised of national direction, regional policy statements, various plans and resource consents. The RMA is set to be replaced by a new statute, the NBA. We explored some of its key proposed features in Chapter 4.

National direction

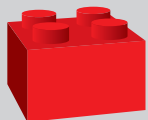
The NBA's intent to provide a more comprehensive package of national direction (a National Planning Framework) could be used as an opportunity to promulgate both national policy and regulations to fill notable gaps in marine management. Some are underway or have been previously suggested, such as an NES outlining common minimum standards for wastewater (and possibly stormwater) discharges, national direction on offshore aquaculture, and an NPS outlining how the te Tiriti relationship is intended to work under the NBA (including in the marine space). Other NPSs could be developed for marine biosecurity more generally, and/or for plastics (including risks to the marine environment).

A package of national direction could also be structured differently so that it gave proper attention to the interconnectedness of marine issues. The marine environment could be given greater focus by ensuring that, for example, an integrated set of domain-based policies formed a first layer of

provisions of the National Planning Framework (including the NZCPS and NPS for Freshwater Management). Other elements (eg sectoral policies and rules for forestry, urban development and wastewater disposal) would then be required to be consistent with or implement that first layer. That would help prevent potential misalignments arising between narrower sectoral regulations (eg NES for Plantation Forestry) and the policy intent of broader tools like the NZCPS, and ensure that the former were designed in a way that actively *gave effect* to the latter.

Existing national direction could be strengthened using a marine lens, for example to prohibit or phase out clear-felling of plantation forestry (or at least to require integrated catchment approaches to stagger planting and harvesting),⁷ to extend the NPS for Freshwater Management to include estuaries as management units (and strengthen provisions for sedimentation),⁸ and to link the concept of good urban design under a revised NPS on Urban Development to the benefits that such design can have for marine outcomes.⁹

While new national direction relevant to the marine environment could lead an independent existence (eg a new NES for wastewater), the NZCPS itself could also get a makeover. Provisions on sediment could be strengthened to complement the NPS for Freshwater Management.¹⁰ It could be made clear that all policies requiring the “avoidance” of adverse effects are deemed to be “limits” under the NBA, and it could deal more explicitly with the adverse effects of fishing activity on marine biodiversity, thereby signalling to councils the range of things that regional plans must deal with (see *Motiti* discussed in Chapter 6).¹¹



A National Planning Framework envisaged under the NBA provides an opportunity for marine matters to be more thoroughly integrated into other parts of national direction. New marine-related national direction could be created and existing documents reviewed through a marine lens. The NZCPS itself could be strengthened.

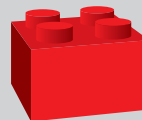
To improve implementation, the NZCPS could be linked with new national level regulations (equivalent to NESs) that are explicitly designed to give effect to its objectives and policies. We have had an NZCPS since 1994, but that has never been translated into complementary national regulations, instead being left to regional councils to implement.¹² This has led to uneven outcomes, with some councils yet to give effect to the 2010 NZCPS more than a decade after its promulgation.¹³

Individual pieces of national direction have also become adept at providing their own framing for the development of other implementation instruments (eg future development strategies under the NPS on Urban Development), and similar instruments could be created under the auspices of a revised NZCPS. This could, for example, see the development of a statutory “marine restoration strategy” to complement the conceptually similar “future development strategies”.

A spotlight on the proposed NPS for Indigenous Biodiversity

The NPS for Indigenous Biodiversity (under the RMA) is currently at draft stage. It does not directly apply to the coastal marine area, but regional biodiversity strategies made under it would include indigenous biodiversity in the coastal marine area, presumably as a way to link it to the policies in the NZCPS.¹⁴ Additionally, it would require councils to take an integrated approach, recognising the impact that terrestrial activities can have on the indigenous biodiversity of the coastal marine area.¹⁵

This high-level policy document sets standards and goals but does not describe the discrete mechanisms by which they will be achieved. One option would be to require the NPS for Indigenous Biodiversity or the NZCPS to include timebound implementation directions – specific actions that have to be done by a certain date – as has been done through the NPS on Freshwater Management.

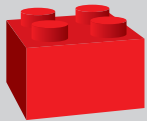


The NZCPS could be paired with new national level regulations (an NES) to give effect to its objectives and policies, and/or it could be strengthened to provide for more extensive “implementation” provisions.

National direction is not only important under the RMA/NBA. Since 2017, there has been the ability to promulgate an EEZ policy statement under the EEZ Act. Yet no such instrument has been made, despite broad criteria being included as to what the Minister must consider when deciding whether to do so. This means that consenting is largely undertaken in a policy vacuum other than the Act’s general purpose and principles. Ongoing difficulties and uncertainty about deep sea mining can be seen equally as the product of a lack of policy and strategy (whether, where and why we want mining to occur or not) as they are about scientific

uncertainty about what the impacts of mining operations would be.¹⁶ One wonders if applicants like Chatham Rock Phosphate and Trans-Tasman Resources would have gone to so much trouble and expense pursuing consent for mining in the places they did if there had been clearer policies outlining the places or contexts in which the impacts of mining are deemed unacceptable (eg on the Chatham Rise or in benthic protection areas) and where they are to be entertained or even encouraged.

An EEZ policy statement is clearly a tool that could be made much better use of. It could build on the relevant general provisions of the NZCPS, or target policy towards the activities likely to occur in the EEZ (eg mining, offshore aquaculture). It could also – even at a broad level – engage in a spatial sense by identifying valuable features of different areas (eg the Chatham Rise or around Rangitāhua/the Kermadec Islands).¹⁷



An EEZ policy statement could provide a much stronger framework for consenting in the EEZ, increasing certainty for applicants and the environment.

Planning

Proposed changes to plan-making under the NBA means that the resultant plans should become more effective tools for marine management. Notably, the production of an integrated combined plan for each region enables a more holistic approach for the coastal marine environment (including where particular land uses like plantation forestry are enabled and where urban growth is directed), and empowers iwi/hapū to have a stronger voice through partnership alongside councils in plan-making.

Planning also underpins the conservation system, through the development of conservation management strategies and plans, which in turn guide the Department of Conservation's operational work and the grant of concessions (including for tourism operations within marine reserves or interacting with protected marine species). Many of these documents are out of date. They lack clarity and there is a history of poor implementation.¹⁸ We are exploring reform of this system in our separate conservation law reform project. Of particular relevance here, though, is how such plans could potentially be reconfigured to strengthen marine management.

One approach could be to develop broader bio-regional marine conservation plans, that provide a strategic lens to the management of stresses on marine protected species and biodiversity more generally, and indicate spatially where protection is needed. Such plans would need to have a stronger implementation mechanism, such as clear milestones and timeframes, and strong links with funding and the grant of concessions. They would also need to interface with RMA plans, and this could be through the Minister of Conservation's role of signing off regional coastal plans. Part of such sign-off could be ensuring they comply with the relevant marine conservation plan.

There would likely be duplication between the two planning systems (due to the overlapping biodiversity functions of councils and the Department of Conservation), and this indicates that a better way forward might be to focus on a single higher-level marine spatial planning process, which we discuss in Chapter 10.

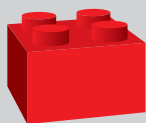
It is interesting to contrast the planning approach under the RMA/NBA and Conservation Act with that for fisheries. Fisheries plans can be created under section 11A of the Fisheries Act, and while the Minister must take them into account in making decisions, they are not mandatory and their purpose remains murky. They are nothing like the structured, focused and legally influential plans that are made under the RMA.¹⁹ As we have said previously:²⁰



Stand up paddle boarding, Wellington harbour

There is currently a very weak policy and planning framework to guide fisheries decision-making ... The legislative framework only provides for fisheries plans (not policy or standards), and the provisions are sketchy as to the purpose, content and preparation process for the plans. [However,] the development of such documents helps to engage a broader constituency in fisheries management, and to provide greater certainty as to how fisheries management will be effected in the public interest. Once the policy or plans are settled, it helps to reduce the politicisation of decision-making and the frequent u-turns which have characterised fisheries decision-making to date. A key matter to resolve is what the role of fisheries planning should be, the scope and content of such plans, and how they should be developed.

Fisheries plans could conceivably be made mandatory, their place/hierarchy in the system made clearer, and their content or at least their purpose prescribed. They could also be regional or local in their application (bioregional fisheries plans) as opposed to the general ones that have been prepared in the past,²¹ involve greater public input,²² and reflect the full range of values reflected in the purpose of the Fisheries Act.



Combined plans under the NBA should provide more effective tools for marine management. Conservation planning could be strengthened to have a focus on marine bio-regional areas. A future system could also see the creation of a more developed planning framework for fishing.

Consenting

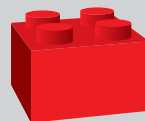
Consenting or permitting frameworks can be better at linking rights to obligations than property rights. Attempts to add responsibilities to property rights later on can be resisted because the market has evolved (prices have been set) in their absence. This raises the question of whether a more RMA-style consenting framework should be applied to fisheries alongside the QMS. The Fisheries Act already requires permits to fish commercially.²³ However, such permits are not like resource consents, and although they can be subject to wide ranging conditions, these are simply what are considered “appropriate” and are not linked to policies or objectives in a fishing plan or any other instrument.

Permits could, however, operate more in line with the RMA, where fishing could, depending on location and method (and therefore environmental impact), be a permitted, controlled or discretionary activity (and where consents would be assessed in light of objectives and policies of a place-

based fisheries plan). This would take a more structured, policy-driven approach to sustainability measures to deal with the impacts of fishing, such as more nuanced control over methods like bottom trawling (tailored conditions to determine when and where a particular operation could do so) and the use of mitigation devices (eg conditions for the design requirements of nets and longlines to reduce seabird and marine mammal bycatch). It could also allow a more sensitive approach to interactions between fishing and existing activities like aquaculture, where conditions could manage what acceptable impacts might look like on both, rather than just having an adverse effects test for new aquaculture operations.

However, if imitation is the sincerest form of flattery, this begs the question as to why an RMA-like planning and consenting framework would be developed in parallel under the Fisheries Act when the RMA itself might be more suited to the task, or (if there is an irreconcilably difficult legislative boundary between them) whether the two might not be combined in a single Oceans Act (see Chapter 11). There may be valid reasons (eg the spatial scale of QMAs differ greatly from regional boundaries, and a proactive tool like a TAC may not be a comfortable fit within a largely reactive planning framework). But if regional coastal plans *were* to encompass fisheries management tools, it then begs the question as to why we would not simply have a single, overarching plan for the whole marine area. Indeed, that would be possible, and we look at marine spatial planning in Chapter 10.

It might also be worth considering what other things could benefit from a consenting framework. What about waste, where the Waste Minimisation Act could require consent to produce particular types of product rather than just prohibit them or provide product stewardship schemes? This tool could even be incorporated into the RMA, linking to objectives relating to marine pollution such as minimising plastics, and reaching into the Fisheries Act by controlling the use of gear like nets (which make up a large proportion of marine plastic pollution).



Fishing permits could be brought under a more environmentally policy-driven framework, which could operate alongside the QMS.



Consenting could be applied more broadly to waste minimisation frameworks.

8.5 Environmental limits

Environmental limits are one kind of regulatory tool that warrants particular attention. In Chapter 3 we pointed out that the current system does not really set limits in a systemic way, including under the RMA, Fisheries Act, or conservation legislation. In Chapter 7 we identified limit setting as a distinct role a future system could play and explored what its objectives might be.

But an environmental limit can be regarded not just as a general name for a role the system could play (that the system must clearly articulate lines in the sand beyond which harm is not allowed), but also as a specific label for a kind of regulatory tool that could be embedded in a new system.²⁴ This would be a form of regulation with a special legal status. Any provision having this label could not be eroded or balanced against other considerations and would have its own dedicated and uncompromising purpose.

The concept of an environmental limit could be deployed across a wide range of statutes. There could, for example, be an umbrella statute (eg an Oceans Act) that defines what the consequences of designation as a “limit” means,²⁵ with various regulations under other statutes then being deemed to *be* limits. Mandatory limits could relate to many different things, including mortality to threatened species specified in conservation legislation, bycatch of marine mammals and seabirds, and proxy measures of ecological integrity.

Environmental limits and the NBA

A spotlight on limits under the proposed NBA

The concept of an “environmental limit” under the NBA is a new tool that could be used to achieve better marine outcomes. It has arisen in response to criticisms that the RMA – even after the *King Salmon* clarification – may not be fit for purpose in setting a comprehensive range of strict limits.²⁶ Despite its rhetoric in section 5, the RMA remains riddled with trade-offs. Some have pointed to the absence of national bottom lines for estuaries in the NZCPS.²⁷ True national level limits in the marine space are largely limited to prohibitions on dumping, driven by international obligations under the London Dumping Protocol (see Chapter 3).

Limits under the exposure draft of the proposed NBA are, in contrast, envisaged to be mandatory and must be set for a wide range of things. Three of those are “coastal waters”, “estuaries” and the overlapping concepts of “biodiversity, habitats and ecosystems”.²⁸ However, that arguably lacks the specificity to require the things that really matter to be addressed, and could be strengthened by providing a schedule outlining the elements of the marine environment that require biophysically-focused limits (eg sediment, nutrients, wastewater, chemicals, habitat protection etc) and the limits on human activities required to defend them (eg forestry, agriculture, urban development). The risk of leaving this tool vague is that it gets narrowed down to only some indicators and pressures (eg coastal water quality) and not others that may be harder to measure and achieve (eg the decline of biodiversity in a particular ecosystem).

It is not clear what a “limit” for marine biodiversity or ecosystems would look like. But it may require spatial expression – specific areas being mapped and protected, not just general prohibited activity status for an activity. This might create a duty to ensure that the NBA is used as a mechanism to create a network of MPAs, rather than relying on things like marine reserves or bespoke marine protection legislation. Indeed, while it is not in the exposure draft of the Bill, the Randerson Panel recommended that an active duty be placed on the Minister to identify and prescribe significant habitats, which might translate to an obligation to *map* them and include them in the more integrated setting of a regional plan. This has, to some extent, been achieved already in bespoke legislation created for Fiordland which draws on the RMA zoning tools.²⁹ We discuss MPAs, and the potential role of the NBA in achieving them, further in Chapter 9.

Raewyn Peart



Salmon farm, Marlborough Sounds

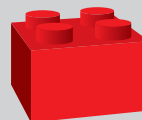
As indicated in the spotlight, environmental limits are a core tool under the proposed NBA, and this could be mirrored in the EEZ Act. A number of questions arise when thinking about how regulatory limits might be designed under the NBA. For instance:

1. Should hard limits be set for specific sectors and activities, or should limits focus only on describing unacceptable effects? For example, a limit could prohibit oil and gas exploration, carbon geo-sequestration, ocean fertilisation or bottom trawling. This may depend on how specific the system's objectives should be (see Chapter 7), and whether we depart from an effects-based system to a prescriptive, activity-based one.
2. At what spatial scale should limits be set? Would it, for example, be appropriate to enhance shellfish beds or create a marine reserve in one estuary in exchange for allowing greater sedimentation and fishing in another? That may influence how (or whether) a marine biobanking system and offsetting framework is designed.³⁰
3. What should the purpose of regulatory limits be? As described in Chapter 7, this could range from low ambition (eg preventing extinction, ecosystem collapse and hospitalisations) to the more ambitious (eg a higher conservation status in the threat classification system and "swimmable" and "edible" estuaries) or linked to te ao Māori (eg safeguarding the mauri of the moana).
4. Should limits be imposed only through actual regulation (eg prohibited activity rules, catch limits, marine reserve regulations) or should they also be contained in policies (eg "rule like" policies in the NZCPS)? The latter might provide some flexibility, but would not be a replacement for actual regulatory controls.
5. What should be the legal consequences of something being a limit? For example, they could include:
 - An inability to progress a private plan change to alter prohibited activity standards.
 - An additional level of scrutiny by an independent regulator when limits are being created and amended.
 - Reversing the burden of proof, or requiring a higher standard of proof, to weaken a limit (reflecting the principle of non-regression).

- More robust monitoring requirements.
- Mandatory public notification of any relevant consent applications.

As mentioned in Chapter 7, there are some challenges in operationalising the concept of a "limit" in the marine environment. For one, it is difficult to measure and observe environmental change or understand interconnected and unpredictable ecological processes and responses. It is hard to know what a minimum state or tipping point actually is.³¹ However, a precautionary approach to limit setting under the NBA – choosing to establish a point beyond which there is an unacceptable risk of significant or irreversible harm³² – does not require full or perfect information. We frequently set limits based on imperfect information for human health, biosecurity and in the context of fisheries stock management. And as the Cawthron Institute has pointed out, "where an environmental limit [in the sense of a biophysical indicator] cannot be clearly specified and directly managed, complementary measures will be needed to protect environmental integrity".³³ This does not make a limit based on environmental integrity less valuable; it may simply mean that instead of numerical standards specifying the minimum state of every aspect of an environment (eg degree of sedimentation), limits are expressed as strongly worded policies or precautionary prohibitions, moratoria, or standardised conditions on activities known to pose an unacceptable risk (eg clearfell harvesting of an entire catchment). In some cases, there are existing tools that might be able to assist in translating minimum outcomes to measurable limits at place (such as the New Zealand Estuary Trophic Index).³⁴

The concept of an "environmental limit" might be treated as a specific tool, not just a role the system needs to play. This is contemplated in the proposed NBA.



Environmental limits contemplated by the NBA could be more targeted to the marine context, including by being more specific about what things limits must be created for. To be useful, a provision classed as a limit would need to have clear consequences different to other provisions.



Trawler, Hauraki Gulf

Environmental limits and fisheries

A range of regulatory tools under the Fisheries Act could be re-characterised as environmental limits. These would be mandatory – a legal obligation rather than a political choice – and could have their own separate, more protective purpose. Legislative provisions would make it clear they could not be eroded or undermined by shorter-term considerations around economic or social benefits.³⁵ In particular, it is worth thinking about whether some existing sustainability measures might be rethought as “limits”.

A spotlight on sustainability measures

Sustainability measures enabled under the Fisheries Act can encompass a wide range of things, including:

- Setting the TAC and TACC;
- Restricting the size, sex or biological state of the species harvested;
- Restricting the areas from which any species may be harvested;
- Restricting the fishing methods that can be used to harvest any stock or which are deployed in any area;

- Restricting the fishing seasons that apply to any stock, any area, any fishing method or any fishing vessel;
- Other methods not specifically described which are aimed at managing the effects of fishing on any stock or on the marine environment.

Despite this very broad range of management tools, relatively few have been deployed since the QMS was introduced. In many places, management of commercial fishing has largely focused on the setting and (in some cases) adjusting of TACCs. Management of recreational fishing has largely focused on imposing bag limits and minimum harvest sizes, followed by closures when stocks collapse.³⁶ Measures such as closing areas for habitat protection, and requiring the adoption of less damaging fishing gear, have been much less noticeable.

The tools to address a wide range of environmental impacts caused by fishing are clearly there. For example, additional benthic and other protected areas could be created, and minimum requirements mandated for fishing gear (coupled with incentives for innovation and uptake).³⁷ It would also be possible for regulations to simply prohibit or phase out bottom trawling and dredging in coastal waters and on seamounts, although for some fishers that may cause hardship and may need to be accompanied by supporting measures. Some have also suggested banning other methods like purse seining (on the grounds that this would enable fish closer to the surface to flourish too, providing more food for seabirds)³⁸ and set netting (to protect dolphins and vulnerable reef fish). And in addition to setting a TAC for a stock, one option would be to impose controls on fishing effort in certain areas, as well as a potential shift to more selective fishing methods more broadly (eg cages and long lining).

A less ambitious option would be to freeze the current dredge and trawl footprint, at least until additional protective measures for benthic habitats could be designed.³⁹ Impacts on seabirds could be reduced by requiring the adoption of innovative mitigation technologies (such as underwater line setting devices) as well as further mandating other devices that scare or deter birds from risk areas.⁴⁰ All such things can be done under current tools. One paper has identified four key types of action that could be focused on: technical measures, spatial controls, impact quotas, and effort control (see Figure 8.2).

Class	Option	Objective
Technical measures	Modify or adapt existing bottom trawl gear	Reduce seabed impacts and maintain or increase catchability of target species
Spatial controls	Prohibition by gear type	Eliminate high impact gears in a defined region
	Freeze trawl footprint	Confine impacts to previously impacted areas
	Nearshore restrictions and zoning	Reduce bottom trawling in shallow, sensitive habitats and minimise gear conflicts
	Prohibition by habitat type	Protect sensitive areas
Impact quotas	Multipurpose habitat management	Protect essential, representative and vulnerable habitats
	Invertebrate bycatch quotas	Reduce bycatch of benthic invertebrates
Effort control	Habitat impact quotas	Habitat conservation to protect benthic organisms
	Removal of fishing effort	Reduce impact by reducing fishing activity

Figure 8.2: Options to reduce habitat impacts of fishing⁴¹

When it comes to mechanisms for reducing the impacts of fishing on the broader marine environment, the problem is not so much that the tools are lacking, but that there is a lack of will to use them.⁴² That is compounded by a (at least perceived) lack of certainty around the nature of property rights in fish (see Chapter 6). There are constant debates about whether a particular sustainability measure taken to protect the environment is “taking” or “eroding” a property right or not, whether some form of compensation should be payable, and whether Te Tiriti rights are being undermined by stealth. The Act is torn between using a reasonably robust toolbox to achieve one part of its purpose, and the defence of property rights underpinning the other. While the

sustainability principles of the Act sound firm on paper, they fall short of the directive approach to protection increasingly being taken under the RMA (eg for fresh water) and proposed under the NBA. This is somewhat curious, as the property rights on land which are affected by RMA provisions are legally much stronger than those attached to fisheries quota.

It is therefore worth considering whether a similar approach to that proposed in the NBA should also inform the reform of the Fisheries Act – the idea of having a mandatory, comprehensive set of national-level regulatory limits rather than just a toolbox of sustainability measures to be deployed in a selective or discretionary manner. This could provide clarity as to what kinds of measures *are* legitimate and necessary to achieve the purpose of the Act, even if they reduce the value of property rights, and when they trigger compensation or support. It could involve a simple direction that the responsible Minister *must* deploy sustainability measures and standards necessary to achieve the purpose of the Act.

The idea of regulatory “limits” in the Fisheries Act is not a radical prospect. The Fisheries Task Force established to inform the 1996 Act promoted the establishment of environmental bottom lines which would set out “the limits beyond which the activity of fishing should not push the environment” to achieve the public good.⁴³ That would include strategies for maintaining stocks at permissible levels as well as controlling the methods and location of fishing to avoid adverse effects. The ability



Snapper in Danish seine net, Hauraki Gulf

Reewyn Peart

for the Minister to promulgate binding environmental standards was even included in the initial Bill, but this was removed before it passed into law, and replaced with general principles and mostly discretionary sustainability measures. The reason given was that the TAC was “the main environmental standard for most wild fisheries”, and the QMS was “the principal fisheries management mechanism”.⁴⁴ This goes back to the question of whether property rights or other regulatory mechanisms are more appropriate for setting environmental limits. However, our experience in fisheries has demonstrated the problems that can occur with strongly relying on property rights to address environmental impacts.⁴⁵

A spotlight on environmental limits for fisheries in the United States

United States federal fisheries legislation has,⁴⁶ since 1996, required the identification and, since 2002, the mapping of essential fish habitat and the minimisation, to the extent practical, of the adverse effects on such habitat caused by fishing. Other actions to encourage the conservation and enhancement of these areas must also be identified. Essential fish habitat is defined as “those waters and substrate necessary to fish [which includes all marine life other than marine mammals and seabirds] for spawning, breeding, feeding or growth to maturity”.

The mapped areas are included in regional fisheries management plans and have resulted in extensive bans on trawling and other bottom-disturbing fishing methods in some places. For example, in 2005, bottom trawling was prohibited from 95 per cent of the fisheries management area around the Aleutian Islands in Alaska, with six Habitat Conservation Zones being closed to all bottom contact fishing gear due to the high density of coral and sponge habitat. Bottom trawling for all groundfish species was also prohibited in 10 designated areas along the continental shelf of the Gulf of Alaska, among a raft of other protections.⁴⁷



There are many regulatory tools available under the Fisheries Act that have been underutilised. A future system could provide more structure and direction around how (and why) they are to be deployed, and could characterise some of them as environmental limits.

Limits with respect to fish stocks

It is also worth considering the toolkit for setting catch limits for fish stocks themselves. This is arguably already a form of limit managed squarely under the Fisheries Act through the setting of a TAC and TACC.⁴⁸ However, various changes could be made in a future system.

One option would be for the Harvest Strategy Standard, which is currently used as a non-statutory guide when setting catch limits, to be formalised in legislation as a core part of the system. A recent High Court decision has confirmed that this instrument cannot be ignored (see the spotlight below). However, the Standard does not have legislative status; in future it could be recognised under the Fisheries Act to ensure there is rigour around setting commercial catch limits. This might go some way to remedying the lack of formal policy instruments under the Act (as discussed above), and could even evolve to add more value-based principles for setting catch limits (ie when to aim for something other than MSY).

A spotlight on the Tarakihi decision: The place of the Harvest Strategy Standard

In June 2021, the High Court issued its judgement on a challenge by the Royal Forest and Bird Society of decisions made by the Minister of Fisheries which set the TAC and TACC for East Coast tarakihi fish stocks.⁴⁹ For the 2015-6 fishing year, the size of the stock was estimated to be just 17 per cent of virgin biomass, further reducing to 15.9 per cent by the time of an April 2019 stock assessment. In response, the Minister made decisions to reduce the TAC and TACC for the stock for the 2018 and 2019 fishing years resulting in a combined reduction of 22.3 per cent for the East Coast tarakihi stock.⁵⁰

The Court found that the Minister had made an error of law (in setting the rebuild period for the stock), failed to take into account a mandatory consideration (the Harvest Strategy Standard), and had regard to an irrelevant consideration (an Industry Rebuild Plan) when making the decisions. Although the decisions were not set aside, the findings of the Court will guide the Minister’s future decisions for the stock, and will no doubt have flow on effects for decisions on other stocks which require a rebuild.

The decision provides useful clarity on the application of several provisions of the Fisheries Act to stock management, and the way in which environmental limits are to be applied in that context.

The Court made it clear that stocks are not to be managed below MSY, thereby confirming it as a firm limit. It dismissed the argument that social, cultural or economic considerations could be taken into account when determining the period of rebuild, on the basis that this was “not a tenable interpretation” of the relevant section (s13(2)(b)(ii)) because it would enable stocks to be “perpetually” maintained below MSY.⁵¹ This was in the context of the Minister being influenced by an Industry Rebuild Plan when setting a longer period for stock rebuild.⁵²

The Court also made it clear that the Act required more than the Minister simply “moving in the right direction” when stocks were below MSY.⁵³ The Minister is required to identify the rebuild target (ie target stock size), the period of rebuild (which must be appropriate for the particular stock), and the probability of achieving the target which are all “essential elements of the rebuild plan”.⁵⁴

One of the matters successfully argued by Forest and Bird was that the Harvest Strategy Standard and accompanying Operational Guidelines were a mandatory consideration for the Minister when making decisions on setting the TAC/TACC. This was despite there being no mention of the Standard (or the setting of any policy or standards) in the Act itself.

The Harvest Strategy Standard was developed by the Ministry for Primary Industries in 2008. It establishes default limits and standards for fish stocks including management targets, soft limits (which when breached generate a rebuild plan) and hard limits (which when breached may generate closure of the fishery). When applied to the tarakihi stock, it indicates a management target of 40 per cent of virgin biomass (with a 70 per cent probability), a soft limit of 20 per cent and a hard limit of 10 per cent. It also indicates a rebuild time of 10 years. Any departures from these default settings “must be justified in terms of the particular circumstances that warrant such departure”.⁵⁵

The Court found that although the Standard did not have legislative force, it constituted “best practice”, was an “established and recognised body of opinion” and therefore was the “best

available information” under section 10 of the Fisheries Act. This section sets out a number of information principles that “must be taken into account” by decision-makers, with subsection (a) stating that “decisions should be based on the best available information”. This meant that the Minister must take the Standard into account, although he is not required to comply with its provisions.

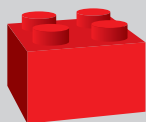
However, the Court did highlight that, in this case, the weight to be given to the Standard “is not solely at the Minister’s discretion” as “while the HSS [Harvest Strategy Standard] does not have legislative force, there is no counter argument from the respondents to the HSS statement that one cannot be satisfied that rebuild is complete until there is at least a 70 per cent probability that the target has been achieved”.⁵⁶ This indicates that the Minister cannot decide to depart from the Standard unless there is a solid scientific basis for doing so.

An indication that the Harvest Strategy Standard has not been factored into fisheries decisions to date is indicated by the advice given to the Minister by Fisheries New Zealand on the tarakihi stock. In 2018, it provided the Minister with three options to rebuild the stock. Only one (Option 1) was estimated to rebuild the stock within the 10 year target indicated by the Harvest Strategy Standard (requiring a 55 percent reduction in TAC). Option 2 was projected to require a 20 year rebuild (through a 35 percent reduction in TAC), and Option 3 which included a lower TAC reduction (20 percent) had no estimate of rebuild time. The Minister adopted Option 3.

The 2019 advice paper contained four options provided by Fisheries New Zealand, none which met the requirements in the Standard. Option 1 (31 percent reduction in TACC unevenly spread) had a rebuild period of 12 years and Option 2 (35 percent reduction evenly spread) 11 years, both with only with a 50 (rather than 70) percent probability; Option 3 (no TACC reduction but voluntary industry measures) had a reduced rebuild target (of 35 rather than 40 percent of virgin biomass), a rebuild target of 20 years and no associated probability; Option 4 (10 percent reduction and voluntary industry measures) had a rebuild period of 25 years (with 50 percent probability) and of more than 30 years with a 70 percent probability. The Minister adopted Option 4.

At the time of writing, the High Court decision was under appeal. But if the decision stands, the Harvest Strategy Standard may need to be considered as a policy document that establishes

default limits for the setting of the TAC and TACC for stocks, and these can only be departed from on the basis of sound scientific grounds. However, that begs the question whether the legislation itself should have such a document at its heart. Something like the RMA has a mandatory core document – the NZCPS – to assist in decision-making about limits. Fisheries is not conceptually that different. There is also a deeper normative question here (see Chapter 7): should the limits at the heart of the TAC be aiming to achieve MSY or something different?



The Harvest Strategy Standard, which provides a more nuanced approach to setting TACs, could be formally incorporated into legislation.

The scale or granularity with which limits are set also needs attention. That applies to all frameworks (eg zones under the RMA and the coverage of MPAs) but is particularly relevant to limits on taking fish. This is both spatial (where the boundaries of QMAs should be) and species-related (whether limits apply to individual or connected stocks).



Commercial crayfishing, Mercury Bay

A spotlight on an ecosystem-based approach to stock assessment

Some commentators have argued that fisheries management tends to focus on single species rather than taking account of interactions between species or with the ecosystems within which fish species live.⁵⁷ Within the food web, fish function both as predator and prey, and in those roles, they affect the structure and function of their habitats. When fish are removed by harvest, this reduces the size of their own population, but also in turn affects the populations of other biota and the relationships amongst them within complex food webs. Focusing management primarily on the size of the harvested stock (and “counting fish”) has the potential to lead to the wider effects of fishing being ignored, including changes in ecosystem components that may affect the managed stock itself in the longer run.

The Fisheries Act does not limit management to a single species approach. In fact, section 9 requires that decisions take account of the need to sustain associated or dependent species, the maintenance of biological diversity of the aquatic environment and protection of habitat of particular significance for fisheries management. This is evident in the plenary assessments of fisheries stocks⁵⁸ including its use of the Aquatic Environment and Biodiversity Annual Reviews,⁵⁹ which provide summaries of scientific data and analysis of wider ecosystem effects and relationships including bycatch, benthic effects of fishing and ecosystem status.

However, in practice and despite the Annual Reviews, the wider effects are less well understood because the research focus and investment has largely been on valuable commercial species rather than non-commercial species or the quality of the marine environment in a wider sense. The Ministry for the Environment with Statistics New Zealand note that about half of Aotearoa New Zealand’s fish stocks (mainly minor fished species) have too little information to reliably assess their stock status.⁶⁰ Yet these are often vital components of the broader marine food web.

One commentator suggests some of the problem is attributable to the “user-pays” funding model for research because it relies on a levy on quota owners who can influence what the research is focused on.⁶¹ In addition, the costs are levied back to quota in individual stocks, and some of the smaller less valuable stocks

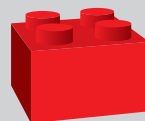
do not produce enough revenue to make investment in their research financially viable (which raises the interesting question of whether we should be fishing stocks if we cannot afford the research to understand the effects of doing so). Quota owners are understandably more focussed on the stock they own quota in, and on those that are of the most commercial value.

Alternative funding models are likely to provide a better basis for science aimed at achieving sustainability in its widest sense. For example, funding might still come partially from a levy on quota owners but with research guided by an independent panel with a wider societal remit, and more thoroughly integrated into a coherent strategy and plan for environmental research.⁶² And other sources of funding might be looked at, too, recognising that there are considerable recreational fishing and broader public interest in having a strong information base. For example, one option could be to provide a licensing regime for recreational fishers and ringfence revenue for ecological rather than stock-based research. Our system for environmental research, information and science has been looked at recently by the Parliamentary Commissioner for the Environment,⁶³ and oceans are an important part of that given how little we know and how difficult things can be to observe. Arguably there needs to be a more fundamental rethink of our funding model.

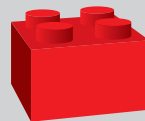
Other limits might be considered with respect to fisheries management as well. For instance, while the TAC is intended to be a hard limit, it does not currently really operate as one. This is because controls on recreational catch (eg through bag limits per person) are set based on an estimate of how many fish are likely to be caught. Unlike commercial fishing, there is no hard cap at which point fishing must stop, although as the fish become harder to catch the amount of recreational fishing tends to decline.

One option would be to create such a cap, although that would require a more intrusive system by which recreational fishers must be licensed and report their catch. It would also require a more complex allocative mechanism (if there is a hard limit, who gets to fish? Is it first in, first served? A system of tradeable rights? Some preference for iwi?). This may risk fraught conversations about fairness, freedom, te Tiriti obligations, and cultural values.

An alternative could be a spatial distinction between commercial and recreational catch limits. This could see the establishment of dedicated recreational fishing areas close to the shore that would have their own catch limits (which could be set at a more ecologically sensitive and “experience” focused objective⁶⁴ than MSY), with separate areas open to commercial fishing.⁶⁵ Such “recreational fishing parks” were proposed for the Hauraki Gulf and Marlborough Sounds in the government’s 2015 discussion document on new MPA legislation but have not been proceeded with.



A hard “cap” could be placed on recreational take (a “total allowable recreational take”) as well as a commercial TACC. However, that could have challenges.



Greater spatial separation could be created between recreational and commercial fishing activities by creating dedicated recreational fishing areas.

The scale at which catch limits are set is also important. At present, QMAs are very large and contain a wide variety of ecosystems within them. Local depletion can not only cause difficulties for recreational and customary harvest, but also impacts on localised ecosystems that rely on a delicate balance within a food chain. For example, efforts to control fishing under the RMA around Motiti Island have been focused on a much more granular marine environment, not the QMA of which it is a part.



Commercial longlining, Hauraki Gulf

A spotlight on QMAs

The Fisheries Act spatially divides the sea up into differently configured administrative units (called “fisheries management” areas). Most of these extend from the shore out to the edge of the EEZ. Seven areas are adjacent to the mainland coast and another four cover offshore areas surrounding island groups. QMAs for fish stocks have largely been defined on the basis of these fisheries management areas. These areas were largely developed for administrative efficiency (albeit based on broad understandings of the differing characteristics of the marine environment) and do not coincide with many biological fish stocks, even though such stocks are the main focus of fisheries management effort.⁶⁶

It is not clear the extent to which local units *within* a QMA can be managed separately through apportioning part of the TAC and TACC to them, or whether this needs to be achieved by establishing no take protected areas or tools like taiāpure or mātaītai. More spatially granular catch limits might help reduce pressure in sensitive places, reducing the need for a domino effect of rāhui and closures where localised depletion is deemed too much by mana whenua and local communities. The recent introduction of real-time electronic catch reporting would make more spatially granular management much more feasible than in the past.

While some stocks may require more *localised* management, others may require broader spatial management than under individual QMAs. In addition, the space in which related species live and move is constantly changing. This calls for a more agile *process* to be embedded in legislation by which QMAs, and more nuanced spatial areas within them, could (and must) be changed over time. That may be valuable, not just to transition to a more ecosystem-based system but also to reflect new information and ongoing changes in habitats and population dynamics driven by climate change and other stressors (eg pollution from land).⁶⁷ However, the impacts on individual transferable quota (ITQ) would need to be carefully managed, as these are currently spatially linked to a specific QMA. While there is power in the Fisheries Act to change QMA boundaries, it has hardly ever been used.⁶⁸

Instead of just changing management boundaries, another option might be to create layers of management in which existing units of space can be managed together in a more coordinated and adaptive way to recognise interdependencies between them (see rock lobster spotlight).

A spotlight on interdependent stocks: the case of the rock lobster

Rock lobsters are widely distributed in coastal waters around Aotearoa New Zealand. The red or spiny rock lobster (*Jasus edwardsii*) supports important coastal fisheries, which have been managed within the QMS since 1990.⁶⁹ The national fishery is currently divided into nine management areas labelled “CRA”. Rock lobsters within each CRA are assumed to constitute separate stocks for assessment and management purposes.⁷⁰

This oversimplifies the biological reality. Rock lobsters have one of the longest larval stages of any marine species.⁷¹ After hatching in shallow coastal waters, larvae drift offshore, where they spend 12 to 24 months transitioning through different development stages.⁷² During the extended offshore phase, larvae can be transported considerable distances by ocean currents and subsequently settle and recruit to other geographic areas.⁷³ Consequently, stocks that are linked by prevailing ocean currents are interdependent and the depletion of one geographically defined stock can lead to reduced recruitment in other stocks.⁷⁴ Put simply, they move around QMAs.

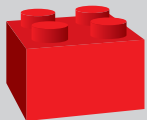
One study identified important relationships between rock lobster stocks on the east coast of the North Island where recruitment is generally lower than in other parts of the country.⁷⁵ For example, CRAs 2 to 4 receive nearly all of their settlement from ‘up-current stocks’ including CRA 1 (Northland), while CRA 1 is thought to receive the majority of its own settlement from CRA 9 (Westland/Taranaki).⁷⁶

The findings of recent stock assessments suggest the failure to recognise the interdependence of stocks has contributed to poor outcomes in north-eastern rock lobster fisheries. Significant declines in stock levels have been observed in CRA 1 (Northland) and CRA 2 (Hauraki Gulf / Bay of Plenty) since the 1940s.⁷⁷ In 2017 it was found that the spawning biomass in CRA 2 was critically low, at only 18 percent of the unfished reference level, and a formal rebuilding plan was implemented for the stock.⁷⁸ The latest stock assessment for CRA 1 shows the stock is in a state of persistent depletion, at a level that is only marginally higher than the historic low point.⁷⁹ An increase in the overall biomass of CRA 1 is necessary to support the rebuild of CRA 2 and other down-

current stocks. In short, they are all connected. However the recent sustainability proposal for the stock fails to recognise this.

A more suitable management approach would recognise the relative importance of relationships between stocks and implement stronger measures to protect stocks that are important sources of larvae for other geographic areas. Such an approach is already available under the Fisheries Act. Indeed, the Minister is required to take into account the interdependence of stocks when setting a TAC for a fishery. To date, a narrow interpretation of s 13(2) has been adopted by considering relationships between different species (ie trophic webs). However, a more scientific approach would include consideration of different stocks of a single species (ie across QMAs).

Management boundaries for fishing in the current system do not necessarily reflect the biological reality of fish stocks or their ecosystems.



A future system could provide more framing around how to set localised catch limits within QMAs, requiring boundaries to be redrawn based on ecological factors, or providing a more agile process (and trigger points) by which QMAs are (or must be) revised.

Environmental limits and conservation

Because their purposes are already more uncompromisingly protective, regulatory tools under marine conservation legislation could also be regarded as “limits”. However, statutes like the Marine Reserves Act, Marine Mammals Protection Act and Wildlife Act have a number of problems, and would benefit from redesign from the ground up.⁸⁰ A particularly egregious aspect is that, although they sound highly protective, they often lack the “bite” to impose true environmental limits. That could change in a future system so that the species and area-based protections imposed under such frameworks are both mandatory and powerful.

For example, population management planning is a tool that is currently available to address the bycatch of protected species in fisheries but it has never been successfully used and is arguably not fit for purpose. Since 1996, the Marine Mammals Protection Act and Wildlife Act have both provided for the creation of these plans. They are designed to ensure the recovery of *threatened* species to non-threatened status, or to prevent populations declining, but they can be created for non-threatened species as well. Plans can specify a maximum amount of fishing-related mortality for a species. When a population management plan is approved, the Minister of Fisheries is required to take all reasonable steps to ensure that the maximum allowable fishing-related mortality set is not exceeded.⁸¹

The plans require the joint sign-off of the Ministers of Conservation and Fisheries, and the Minister of Fisheries is required to consider the impact of the plan on commercial fishing.⁸² Thus, while such plans can impose limits once created, they are not really systemic limits because they can involve trading off the economic benefits of fishing with the desire to protect marine mammals.

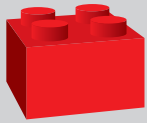
There have been several attempts to create population management plans for the New Zealand sea lion and Hector’s dolphins, but none have been completed. The reasons for this include an overly complex statutory process for their development, the need for cross-agency support which was difficult to obtain at the time, and the targets set in the legislation being unworkable.⁸³ Instead, agencies have focused on developing non-statutory plans such as national plans of action for seabirds and sharks and threat management plans for Hector’s and Māui dolphins. These often leave the implementation of fishing bycatch controls to the provisions of the Fisheries Act, which is potentially problematic, given that the purpose of that Act is the sustainable *utilisation* of fisheries, and it is not focused on the absolute protection of marine mammals or other marine wildlife.



Tools under conservation legislation could be strengthened so that they provide for more powerful species-based environmental limits. In particular, the process for creating population management plans could be made simpler and/or focused only on the biological needs of protected species (rather than the impact on other users of the sea).

Enforcement of limits

It is one thing to set limits. But consideration also needs to be given to what happens if a limit *is* infringed. This partly relates to the need for better compliance, monitoring and enforcement, and the ability to revoke or extinguish rights for repeated or reckless non-compliance with regulatory requirements (notably under the RMA). But where breaches of minimum standards of environmental health cannot be directly attributed to one or more particular people (ie it is not a compliance or enforcement issue), legislation could still provide for other forms of action to be taken. Breaching a sedimentation limit in estuaries might, for example, result in a moratorium on clearfell harvesting in a catchment (or the use of a staggered catchment-wide harvest management plan).



The system could provide that a breach of environmental limits has clear and immediate consequences as a matter of law, including (to the extent necessary) overriding existing land use rights.

8.6 Legal rights

“Rights” are ultimately a regulatory tool, even though they are not usually called by this name. If a person is granted a legal right, then any infringement of it by another person can lead to compulsion and coercion (eg through court action). But rather than public authorities forcing or preventing people from doing things, rights are about allowing (and, indeed, relying on) the holders of rights to defend them.

Rights come in many shapes and forms, and are not just lofty and inalienable things to be found in something like the Bill of Rights Act. The system can also consciously create rights, including *property* rights, as a means to achieve broader public policy objectives.⁸⁴ As tools that can be used to change behaviour, they become of particular interest for reform.

As described in previous chapters, there are many rights in the current system. In Chapter 6 we looked at whether these – or at least some of them, such as private marine title or fishing quota – should be treated as sacrosanct and “off limits” for reform from the outset. Assuming that a conversation about them is at least on the table, our concern in this chapter is now quite different: *how* rights (including but not limited to existing ones) might be used or changed as part of the toolkit to better achieve our objectives.

Property rights

One reason the system might create property rights in marine resources (by privatising them and allowing them to be traded) is:⁸⁵

to incentivise people to protect and use resources wisely or sustainably. This assumes that if people have a property or other stake in a resource (or aspect of the environment), they will manage it in a way that reflects both their own interests and that of society as a whole. It is a way to avoid a “tragedy of the commons”.

This “enclosure” approach to the commons was arguably a strong theoretical foundation for establishing quota in fisheries, and reflects an anthropocentric and instrumentalist view of the moana.⁸⁶ As we have said elsewhere, relying on property rights and markets as a tool to achieve broad and environmental goals:

relies on people’s rational self-interest to manage resources sustainably... [and] using them as an allocative mechanism assumes that markets will distribute the value of resources efficiently and equitably (or that equity doesn’t really matter). Both of these are highly questionable propositions and we must be wary of going down the route of further privatisation... The neoclassical ideal of the rational economic actor is often not the reality. If people cannot always be relied on to look after their own property, then they cannot be relied on to secure the interests of the broader public, future generations or nature itself.

So while tradeable property rights can be a tool to achieve efficiency in allocation (it ends up at its highest value use, at least in monetary terms),⁸⁷ it may be naïve to expect them (on their own) to achieve public interest outcomes in a future system. This can be seen in the case of commercial fishing quota.



Commercial fishing vessels, Whitianga

Raewyn Peart

A spotlight on fishing quota

There was some expectation that privatising fishing rights through the QMS would lead to better sustainability of commercial stocks. Owners would have an incentive to better manage them, and new entrants could buy others' rights rather than putting pressure on regulators to simply allow more fishing. But its core function was arguably an allocative one. In creating a market, quota enabled fishers to exit the industry (with capital) and promoted a rationalisation of the fishing fleet. It also provided the currency to settle the Tiriti claims.

In theory, the QMS resulted in quota being owned by those who valued the right to fish most highly, thereby promoting economic efficiency. The system also had an element of equity, in that new entrants could buy their way into the market (although this assumed a well-functioning market which has not necessarily been the case). The market determines, quite simply, who gets what. Once quota have been issued, other than some limits on aggregation, the only real ongoing allocative decision left to public intervention is the relative rights of the commercial, customary and recreational sectors when the Minister sets a TACC.

Although allocation is largely left to the market, setting the overall harvest limit (TAC) and other public interest sustainability measures remain with the Minister. At times, the country flirted with idea of devolving fisheries management to quota owners, on the basis that they were best placed to ensure the sustainability of stocks. But this has generally not happened. The market has not been left to determine what is sustainable, only what is efficient and fair. The QMS is therefore a long way off the Coase Theorem described in Chapter 7 (where *environmental* wellbeing is assumed to flow from clear and unambiguous ownership).⁸⁸

However, the tension between the different potential functions of the QMS has remained to some extent, creating uncertainty as to when property rights should be used as a tool, not only to allocate rights, but also to set environmental limits and manage stocks. This can be seen in the lack of clarity around when fisheries planning (and other management tools like setting the TACC) should be devolved to industry groups to self-regulate and when it should be wielded by central government.

This is not to suggest that devolution is always a bad thing. Indeed, while there have been notable failures, industry self-management in some fisheries has had benefits.⁸⁹ It is simply to say that a future system could be clearer about the role that different tools – including private property rights like quota – are intended to play in a future system. Are they purely allocative, or do we rely on them as incentives to protect the environment?

That is particularly relevant when it comes to sustainability measures necessary to prevent harm to the broader marine environment from fishing activities (ie not just stock management), and to protect habitats of importance to fisheries. Both of these things are core to the purpose and principles of the Act. There are already ministerial powers to impose far reaching controls, but they have for the most part not been used.⁹⁰ For some, this can partly be put down to a lack of political will and lobbying pressure (due to complex incentives in the market for quota),⁹¹ but it speaks also to persisting differences in philosophy. Interviewees who were deeply embedded in the fisheries management system at the time environmental regulatory standards were being considered reported that action on environmental matters was stymied by an unresolved debate about whether such impacts needed to be regulated under a QMS system at all.

There are risks in relying on property rights to achieve public interest environmental outcomes, especially when it comes to setting environmental limits. There is still an underlying philosophical debate about the extent to which private property rights under the QMS should be relied on to protect the marine environment, and to what extent that should be the role of clear and proactive regulation like sustainability measures. This will need to be resolved within a future toolkit.

Tradeable rights exist beyond just fisheries quota. For example, cap and trade systems for diffuse pollution (eg nutrients in catchments) that can impact the marine environment (particularly estuaries) have been set up in some places, and such things are supported by some economists.⁹² Tradeable property rights have also been the main tool of choice for restricting the emission of greenhouse gases under the emissions trading

scheme.⁹³ Other property rights in the marine environment have not been created to achieve broader policy goals, but are either historical artifacts or due to (arguably outdated) assumptions that resources must be owned by “someone”. For example, private title over marine space still exists in some places, including for properties subject to coastal erosion. And while subsurface minerals (including oil and gas) have not been privatised, they *have* been nationalised. Extraction is still (in theory)⁹⁴ managed for the public interest, but this relies on the transfer of property rights in minerals from the Crown to private entities. In other words, the Crown’s custodial role is linked to its ownership of the resource, not as an environmental steward, and management under the Crown Minerals Act largely reflects that.

This is not necessarily the way of the future. If the public trust doctrine were to apply in Aotearoa New Zealand, there would be an ethical obligation to manage all forms of property, including minerals, in ways that serve environmental and social outcomes (especially when it comes to climate change). Crown property rights in particular could come with broader obligations as to their management, not just efficiency and financial return.

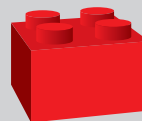
Some other private property rights exist in the marine environment due to historical reasons, such as private title over the seabed and Crown ownership of some minerals like oil and gas. Especially where Crown owned, property rights could be more firmly linked to broader environmental and social outcomes.

In many other cases, however, enclosure and property rights in the moana have been strongly resisted. The MACA Act is very clear that the common marine and coastal area (the majority of the foreshore and seabed itself) cannot be owned at all,⁹⁵ even though customary marine title (where recognised) confers some rights similar to property interests.⁹⁶ Even fisheries themselves have not been “privatised” as such. Most fish remain a shared resource. Property rights only exist for commercial fishing and are not relied upon at all to manage the sustainability of recreational and customary take. And commercial fishing quota only provide a right to *take a proportion* of a maximum allowable catch set by the Minister, not a property interest in the fish themselves.

Under the RMA, the law also takes pains to emphasise that rights to do things, like occupy the seabed or discharge contaminants, are not *property* rights to be owned or traded.⁹⁷ They cannot be frustrated or derogated from by granting competing rights to others, but they are time limited, rights of transfer are controlled, and conditions can be reviewed and changed. Regulatory obligations (conditions) are firmly linked to these rights in a way that does not occur with property rights in fisheries quota and minerals. More broadly, the law tends to presume no ownership of wildlife unless within the control of a person (eg domesticated).

The grant of private property rights in the marine environment has not been as widespread as on land. Rights under the RMA and EEZ Act are deemed not to be property, there are no property rights in wild fish themselves (only in commercial rights to take a proportion of a TACC) and wild species are not “owned”. The marine space is a mix of private and public interests.

When it comes to the use of property rights in a future system, we have many options. While there is unlikely to be appetite for a conversation about reinstating or extending Crown or private ownership of the foreshore and seabed itself (although the nature of mana whenua interests is by no means resolved legally or politically),⁹⁸ property rights could be created or expanded in other ways. For example:



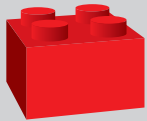
The QMS could be expanded to include commercial operators of recreational fishing activities (eg charter boats), by requiring such operators to cover their catch by purchasing ACE.

Raewyn Peart

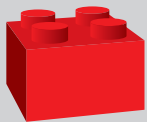


Seawall, Milford, Auckland

That might address allegations of unfairness that some operators are indirectly earning money from “free” fish (and where large scale and concentrated recreational fishing can have impacts akin to small-scale commercial harvest) while others (especially struggling commercial fishers reliant on ACE) have to pay for them. Going further:

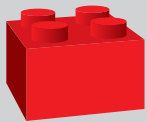


A parallel system of quota could be established for all recreational fishers (replacing tools like bag limits).⁹⁹

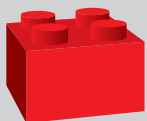


Recreational fishing could be included in the same market as commercial quota, so (at least in theory) fisheries would go to their highest value use.

However, these measures would run up against a strongly held belief by some that the freedom to access fish for non-commercial purposes (including by many Māori to feed the marae or whānau) should be available to all, not just those who can afford to pay for quota. In this sense, fishing may be seen as not too different from access to the transport network or drinking water infrastructure, and as much about the social and spiritual value as the instrumental value of fish. On another front:



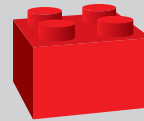
Coastal permits under the RMA and EEZ Act could be made more akin to property rights by allowing greater tradability and longer duration, especially when it comes to aquaculture and other activities requiring a long-term presence (eg wind turbines affixed to the seabed or desalination facilities).



Property rights in aquaculture could be established that are not linked to particular places or the need for coastal occupation (eg for mobile aquaculture operations based on a particular biomass rather than the area of operation).¹⁰⁰

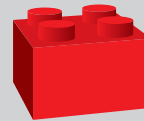
At present, aquaculture proponents are facing challenges where spatially fixed consents are not able to move easily when conditions change (eg such as seawater warming in the Marlborough Sounds). Tradeable

property rights in aquaculture could provide a means to implement the aquaculture Treaty settlement, which, unlike fishing quota, remains fraught due to the need for regionally specific agreements based on projections of likely future aquaculture development in the area.



Aquaculture rights could be made more fungible with quota rights, meaning that trading of rights could occur across sectors.

A quota holder might choose to trade perpetual quota for long-term aquaculture rights, while large scale aquaculture operations could have a mechanism to “buy out” ITQ rather than be refused consent on the basis they will have adverse impacts on fishing. This would involve immensely challenging design questions¹⁰¹ and potentially unpredictable consequences, and would ultimately depend on what we were trying to achieve. But it may be worth exploring. Finally:



Cap and trade markets for some forms of diffuse pollution (eg nutrients) could be rolled out more proactively across relevant catchments, and include estuaries.¹⁰² Depending on the ability to measure or estimate runoff from individual properties, that could include sediment.



Recreational fishing, Firth of Thames

Raewyn Peart

The use of property rights and markets could be expanded in a future system. That might direct resources to their highest value use. However, it might run up against issues of equity of access (particularly to fish) and some public expectation about the nature of the marine environment as a “commons” or shared space.

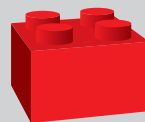
A future system could, alternatively, head in the opposite direction by questioning whether property rights in the marine space are a useful tool at all, or rather a relic of a past neoliberal age which should be undone across the board. For example, there could be a mechanism to remove privately held title in the coastal marine area (eg through gradual buyback and extinguishment of such titles), reflecting the idea that the ocean should be space owned by no one.

Seabed minerals could, like most resources in the ocean, also be owned by no one. They could be managed (and not owned) by the Crown, potentially in partnership with mana whenua, and according to more robust environmental (and climate) principles.¹⁰³ That could be achieved via amendment to the Crown Minerals Act.

The limitations of a market-based system under the emissions trading scheme are also more obvious at sea than on land. It can be harder to calculate or estimate emissions from activities like bottom trawling and sinks from planting and restoration (eg kelp and seaweed) in an environment that is extremely difficult to observe.¹⁰⁴ It is likely that a future system will need to use other regulatory and non-regulatory tools

to prevent climate change impacts (eg narrowing trawl corridors) and to incentivise mitigation measures (eg subsidies for seaweed farming).

Moreover, “property” rights need not be created in aquaculture at all, especially if coastal permits were to become more flexible (eg by being able to move them to “backup” sites in the event of environmental change, with such sites already identified in the context of a broader marine spatial plan).¹⁰⁵ In short, property rights may be useful if carefully linked to regulatory obligations, but they are not the only options in a future toolkit.



Property rights could be eschewed in a future system by removing “ownership” over some things (eg buyback of private title and a different status for Crown owned minerals), and by declining to use market based tools for others (eg greenhouse gas emissions and occupation rights for aquaculture).

While there may be ethical hurdles to *increasing* the use of property rights (we may not want to further privatise the ocean), there are arguably more formidable practical hurdles in unravelling existing rights. This is because many property rights have significant value and eroding them would understandably meet resistance. It is also because some of them have been used as a tool to implement Te Tiriti settlements. And there are questions as to whether doing so would be just or equitable. Changing the status of Crown property rights, like in some minerals, might not prove too challenging. But private property rights, including for fishing quota, are quite different.



Seafood processing plant, Motueka

A spotlight on the Legasea fisheries proposal

Some have suggested that a property rights (market) approach to the allocation of fishing rights should be undone, not just because of the practical expectations it can create (resistance to environmental regulations that can reduce property value) but also because of alleged injustices in allocative decisions themselves (ie that rights and the value share that flow from them are distributed in an unfair way). Here, we need to keep in mind that if or how commercial fishing rights are reformed depends on what the objectives of the system are. After all, markets are not necessarily expected to create what some may see as perfectly equitable results, and it is not clear whether a complete alternative to the QMS would create better environmental outcomes.

On the one hand, the QMS has proved successful in reducing fishing effort and in enabling the rebuilding of some fish stocks. It has underpinned the settlement of Māori fishing claims and associated economic revival of iwi. It has also supported the development of considerable financial capital in the fishing industry. To dismantle it would be extremely difficult, due not just to the extensive property rights involved, but also the fact quota has been used as currency for full and final Treaty settlement purposes. Furthermore, arguably it is not the QMS itself that has caused environmental impacts; it is the absence of supporting sustainability measures under the Fisheries Act and the RMA which could still be strengthened while maintaining a system based on quota.

That said, the social outcomes of the QMS have been far from uniformly positive.¹⁰⁶ Four main corporate entities control large holdings, and those wishing to harvest the fish have to pay to lease the right to fish from them on an annual basis. The operation of the market, including the relationship between the TACC, deemed values, ACE and port prices as well as the vertical integration of the industry (large corporate quota owners generally lease ACE out on the basis that landed fish will be processed at their own plant) is extremely complex and can produce both hardship and efficiencies. The overall result has been a divergence over time between the share of value going to corporate quota holders/retail stores and fishers relying on ACE.¹⁰⁷ That is on top of the exclusion of a number of fishers (eg deckhands and part timers) from quota holdings when the QMS was first established.

It is also arguable that the existence of strong and perpetual property rights without closely associated responsibilities¹⁰⁸ is a factor in *why* some sustainability measures have not been taken under the Act. The separation of quota ownership from those doing the fishing (through the creation of ACE) has arguably diluted some of the stewardship benefits of creating property rights in a resource, due to many fishers no longer having a long-term stake in the industry.¹⁰⁹ The quite different management mechanisms for commercial, recreational and customary fishing have also arguably exacerbated tensions between them, which remain unresolved.¹¹⁰ And market dynamics have in part contributed to a reduced ability for ACE reliant fishers to reinvest in more environmentally sustainable boats, gear and technology.

This is a field for rich debate, and many different perspectives are possible. We do not resolve that here. Yet it is worth noting that some, such as Legasea, have proposed unravelling the QMS through the mass buyback of quota and instead authorising commercial fishing through a permitting process, including associated environmental conditions and a financial return to the public and Māori.¹¹¹ This “Rescue Fish” policy is described as requiring:¹¹²

the Government to buy back existing quota rights in the inshore fisheries at fair value. The estimated buyback cost is between \$0.76 and and \$3.1 billion... Commercial fishing will be subsequently managed by a permitting regime. Permits will be leased, time limited and have a resource rental attached. Rental income will be collected by the Crown and shared with Māori. A new Fisheries Act will both prioritise the maintenance of healthy fish stocks and exclude bottom trawling and dredging from inshore waters. Priority will be given to Māori customary and public fishing.

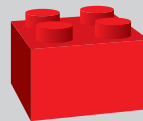
This measure would go well beyond using the “existing” toolkit better; it would be about fundamentally changing or replacing one of the tools in the toolbox. To some, it might be beyond the proper rationale for intervention, and more akin to extinguishing the Torrens system for real estate on land (see Chapter 6). Achieving such a thing may also prove very challenging, not least because of the implications for te Tiriti obligations. Has the QMS become so embedded in the te Tiriti settlement framework that it is practically impossible to unwind? Would changing the terms of the Māori Fisheries Settlement open the floodgates to relitigating a whole raft of broader te Tiriti settlements? Some have called for that to happen, but it has significant risks and would be fraught.¹¹³

It is not necessarily the case that an alternative permit-based system for commercial fishing would be without its own issues, or preferable to more targeted changes to Fisheries Act tools. A more modest option might be the buyback and retirement¹¹⁴ or redistribution (eg by tender) of a smaller portion of quota by the Crown on a willing seller basis, to address issues of equity. The Crown (or an arm's length agency) could become a significant perpetual quota holder, itself leasing out quota or ACE in order to achieve positive social, environmental or other public outcomes. It could be leased out at less than market value for fishers using environmentally friendly techniques or gathering scientific information; to small scale or artisanal fishers to support local fishing communities and reduce localised impacts of large vessels; and at reasonable prices for choke species that might otherwise prevent independent fishers landing their target catch.

ACE could even be leased for longer, more secure periods of time, giving more certainty of tenure for smaller fishers to invest in boats/gear and provide fishing families with more economic security. Rights could be leased at below market prices to soften the impact of any reductions in TACC on those most vulnerable. Although the Crown already holds quota, it does so for only a limited number of reasons and is not an active market participant to shape or "distort" outcomes.¹¹⁵ If there were to be public quota holder, property rights in the QMS would remain as a tool, but a public interest intervenor would operate *within* that market to soften its impacts.

Alternatively, stronger aggregation limits could be imposed in some fisheries, reducing maximum holdings (for example) to 10 or 20 percent across inshore stocks.¹¹⁶ The power for the Minister to allow holdings theoretically up to 100 percent of a fishery could be removed, taking away the potential to authorise uncompetitive markets and exacerbate access issues.¹¹⁷ Some aggregation controls might even be accompanied by regulations that reserve a portion of quota for less efficient but (arguably) more sustainable or socially equitable forms of fishing (eg artisanal fishers). Greater market intervention to protect smaller operators and sustain fishing communities can be seen in Iceland, where a portion of ITQ has been earmarked for small boats and those using hook and line systems.¹¹⁸ In Aotearoa New Zealand, does efficiency of harvest and faith in the market outweigh broader social and environmental outcomes that might be achieved by regulatory intervention? That depends on one's values.

Economic regulation might even break up the industry, as has been done in the electricity sector, by controlling the extent to which large quota owners can engage in downstream retail activities or by limiting contractual clauses requiring the use of particular processing facilities by ACE holders. That could be a complex thing to do, and whether it would be a good idea may, again, depend on whether social objectives are legitimate ones for the system to pursue (see Chapters 6 and 7).



Some have suggested altering or even replacing the property rights based QMS system. It could be undone through buyback of quota and implementing a permitting system. Alternatively, more targeted changes (eg more aggregation controls, creation of a public quota holder, and earmarking some quota for particular types of commercial fishers) could be made to soften the social impacts of market forces and incentivise environmental improvements.

Ultimately, whether property rights should be used more or less in a future system is an ethical matter as much as it is a discussion about what would be most effective in achieving social, economic and environmental outcomes. Property rights in the marine space are by no means inconsistent with improving outcomes (including environmental ones), and one way forward would be to more closely link existing (and new) property rights with other regulatory tools designed to safeguard the public interest. Care will need to be taken, however, as once established such rights can be hard to undo or alter later on.

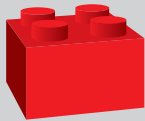
Non-property rights

While not all private rights are "property", some form of rights are necessary in a future system. This is because people require a degree of certainty that they may use resources – whether catching fish, occupying space, or something else – for a viable period of time. Secure rights may, indeed, be important to ensure the delivery of positive outcomes both by the public and private sector (eg food security from aquaculture, energy security from offshore renewables development, economic value through minerals development, and infrastructure like ports). In particular, the private sector will not invest in large scale activities without adequate security of tenure.

This does not mean that such rights need to be absolute. They can be specifically constrained (eg time limited), and associated with obligations (eg offsetting requirements).¹¹⁹ If a future system has a role in setting environmental limits, it will be important that such rights are not permitted to threaten them, especially where activities are ongoing and cumulative effects only become apparent over time. As such, it may be prudent (in some contexts) to shift from the language of "rights" to those of "privileges", to highlight that rights conferred are only vis a vis other people and not the environment.

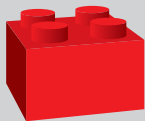
In particular, it should not be assumed that an existing right causing harm will continue simply because it has existed in the past. The Randerson Panel has pointed out that defending such rights could imperil the ability to prevent environmental degradation over long periods of time.¹²⁰ It suggested that existing use rights might be overridden where they threaten environmental limits, so it will be important for those limits to include specific elements relating to the marine environment.¹²¹

Rights to use resources will be necessary in a future system, to provide the level of certainty needed for the private and public sector to invest, and to enable important social, cultural and economic outcomes. However, they cannot be absolute if environmental limits are to be defended.



Existing use rights for land could be overridden where environmental limits were threatened (eg to avoid significant impacts on protected areas in or near estuaries).

There is also the issue of the duration of rights. Many permits granted under the RMA and EEZ Act have limited duration. Some activities require a longer (or potentially indefinite) period of time to provide adequate commercial certainty and viability, and arguably should not face the risk of full reconsement when consent expires. One example is offshore wind energy, where operations may last many decades. Another might be the potential use of the marine space for carbon farming in the future, where that “use” may need to endure in perpetuity or the very long term. On land, such security can be provided by ownership or long-term lease of land, but at sea such rights are currently limited to a maximum of 35 years.¹²² As uses of the marine space diversify, more nuance may be needed when it comes to how long rights endure for different activities, especially where they provide significant public benefit and do not prevent compatible uses (such as recreation, fishing and tourism).



National guidance could state what durations for resource rights are appropriate for different activities, in order to provide adequate commercial certainty, while also avoiding locking in sub-optimal uses.

Allocation of resource rights

While the features of resource rights are important (eg their flexibility and duration), so too is the mechanism by which they are allocated (or reallocated) between people or uses. Many options would be possible on this front, and different resources could be treated differently. The “best” mechanisms for doing so will depend on what the system is trying to achieve when performing its allocative role (see Chapter 7), such as equity, efficiency and the Tiriti obligations.

Some rights can be conferred to all. Here, rights become “freedoms” (eg rights of access to the sea and rights to go fishing recreationally). However, where activities require exclusive use, or where rights are scarce, the system needs a mechanism by which one use is shared with another (eg commercial and recreational fishing) or where one person is preferred for the same use (eg multiple aquaculture proponents seeking limited space). The history of allocating a scarce resource in the context of aquaculture is particularly interesting.



Jetty, Pakatoa Island

Raewyn Peart

A spotlight on aquaculture

Historically, regional councils had little ability to control allocation for aquaculture activities under the dual system of the Fisheries Act and the RMA's first in, first served model.¹²³ Alternative methods were considered, but largely rejected by councils, as it was concluded that the RMA's allocation model did not sufficiently enable councils to devise alternatives (such as balloting).¹²⁴

During the 1990s, there was a sharp acceleration in the growth of the aquaculture industry. With a first in, first served allocation system, and no coastal occupation charges, there was a strong incentive to apply for "free" valuable space ahead of others. This led to a "gold rush" of applications, which gave rise to the Tiriti claims about rights to aquaculture space,¹²⁵ and prompted the government to place a moratorium on processing applications in 2002.¹²⁶

In January 2005, a new regime came into force which required all new farms to be located within AMAs.¹²⁷ It was envisaged that councils would spatially define such areas in their regional coastal plans as a single sector form of marine spatial planning. Space within AMAs could then be tendered. Under the aquaculture Treaty settlement (see Chapter 3), 20 per cent of space was to be provided to iwi, and the AMA approach provided a clear way of achieving that.¹²⁸ There was also provision for private plan changes enabling aspiring marine farmers to propose AMAs, but none came forward. Several councils attempted to create AMAs, but the processes became bogged down, and none were ultimately created. The process proved to be costly, uncertain and politically controversial. Some councils, such as Northland Regional Council, identified areas off-limits to aquaculture in the event a private plan change application was to be made.

The lack of new space under these provisions prompted further law reform, and in 2011, the requirement for locating a marine farm within an AMA was removed.¹²⁹ Aquaculture reverted to being treated in a similar way to other activities in the coastal marine area (dealt with on a reactive basis by assessing proposals as they are received), albeit with a requirement to undergo an undue adverse effects test in regards to wild fisheries. The aquaculture to Tiriti settlement is now to be achieved through the use of regional agreements, which estimate prospective future space and

provide the option for a monetary settlement in lieu of (uncertain) future space. Despite some progress, this has proved a fraught process and conceptually more challenging than the proactive establishment of defined aquaculture space through AMAs.¹³⁰

Councils have, however, been equipped with a broader range of tools (tendering and other competitive processes) to allocate space, in an attempt to prevent a recurrence of the gold-rush scenario.¹³¹ This provides a lot of flexibility for councils *if they choose to use it*, and can be regarded as a positive thing. It is a relatively low-cost way to find out the value potential users attach to resources and where it can be used most efficiently. It can also provide a financial return for the use of public space.¹³² However, while there has been some use of such methods (eg for fish farms off Coromandel harbour),¹³³ overall uptake has been patchy, with industry choosing to focus its efforts on national action (eg an NES dealing with consenting of existing marine farms) and specific regulations for relocation.¹³⁴

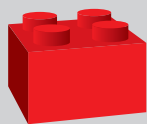
Similarly, tendering for rights to take, remove, reclaim and drain in the coastal marine area has existed since the inception of the RMA, and the Act provides a process whereby the Crown can sell exclusive rights to apply for coastal permits where there is likely to be competition. However, this has also seldom been used.

The debate about allocating rights to the fixed use of space has in the past largely centred on aquaculture, but has implications for many other activities as uses of the marine environment diversify (eg offshore energy generation or an expansion of MPAs).



Oyster farm, Mahurangi harbour

One option for the future would be to continue to grant rights on a first in time basis. Here, a permitting process designed to assess impacts on the environment effectively doubles as an allocative process; the first person to make a complete application has priority rights to the resource. That has been described as a somewhat unintentional, suboptimal, and “bureaucratic” mechanism for allocation.¹³⁵ It might be adequate where there is little competition for resources, but not when there are competing users.



One option for allocating marine resources would be to use a first in time permitting system, whereby the first user to apply receives rights as long as the environmental impacts of an activity are acceptable. However, that can have a number of issues.

More direct tools for allocation could be provided. Legislation could set out a competitive process by which two or more real-world applications could be compared on a structured basis. This is what already happens under the Crown Minerals Act for minerals like petroleum (through block offers), when more than one firm is interested in obtaining rights.¹³⁶ One benefit of a competitive approach is that there would be a degree of certainty that an activity would actually go ahead. A downside is that the most financially viable activities in the present day (and those for which applications would be received) may not be the ones most in the long-term public interest (eg if suitable space is required for offshore wind farms a decade later).

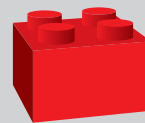
As described in the spotlight above, tools like tendering are already *available* to allocate coastal space and other resources under the RMA,¹³⁷ but the dominant mechanism is still the consenting process (first in, first served). Tendering or an invitation for multiple applications could be made mandatory, or national policy could be created for when that approach was required or encouraged.¹³⁸ That would necessitate clearer principles about the outcomes sought and the weight to be given to different attributes of an activity (eg the relative importance of financial return, employment, environmental enhancement, social expectations and equity).

As mentioned in Chapter 7, the RMA has very little normative guidance as to *why* one tender should be accepted over another. Nor does the Fisheries Act provide guidance when the Minister is setting the TACC for a stock to determine the relative rights of commercial and recreational fishing. Conservation legislation also lacks allocative principles when it

comes to deciding who should be conferred rights to undertake activities in protected areas or interact with protected species.

If more structured mechanisms for allocation were to be used in a systemic way, the impact of te Tiriti would need to be made clearer. Although there is a settlement granting 20 percent of new aquaculture space to mana whenua, it remains unclear the extent to which broader Treaty principles would give priority to Māori for *other* uses of the marine space, including tourism operations and offshore energy generation. As described in Chapter 7, the courts have said that a direction to *give effect* to the principles of te Tiriti has strong allocative implications even where no settlement exists (with consideration given to whether mana whenua should be given preferential rights to concessions).¹³⁹ Yet uncertainty remains as to how that might apply in practice in different places (including a marine setting),¹⁴⁰ or in contexts beyond the Conservation Act. The Department of Conservation is continuing to grapple with what it means and legislative guidance may be helpful.

Mandatory attribute weighted tendering could be applied beyond the context of occupation rights. For example, it could be a tool to allocate commercial fishing rights if the QMS were to be replaced (or if a portion of quota or ACE owned by a public quota holder were to be tendered). Alternatively, rights (or a portion of them) could be auctioned. Purely financial approaches like this – basing allocation on who can pay the most for a right – do not consider equity of access or wider values, such as cultural considerations. There is also the risk of corporatising rights in a few large users, forcing out others, constraining new entrants, and undermining overall community wellbeing.¹⁴¹

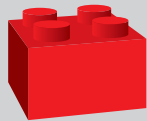


More proactive, structured and competitive allocative mechanisms could be used (or made mandatory) in a future system, such as auctioning or attribute weighted tendering.

Another option could be to use activity-based zoning to allocate spatial rights to different sectors or uses in advance.¹⁴² As we explained in *Farming the Sea*, for example, it is by no means clear that the concept of AMAs (see the spotlight above) was a bad one, and many other reasons can explain its lack of uptake.¹⁴³ The idea of proactively identifying suitable areas for particular activities has been notable in the Sea Change Tai Timu Tai Pari initiative in the Hauraki Gulf.¹⁴⁴ Such an approach may allow easier fulfilment of the aquaculture settlement (and resolve other potential te

Tiriti claims), because a percentage of actual space could be identified, mapped and valued in advance.

Spatial allocations (to identify which *uses* are appropriate, rather than who gets to undertake that use) over larger areas could be progressed through a prior process of marine spatial planning rolled out across the country (see Chapter 10). That would provide an opportunity, not just for sharp spatial boundaries between incompatible uses to be established (eg shipping avoiding future aquaculture areas for biosecurity reasons, or excluding fishing or some fishing methods from protected areas), but also for compatible activities to occur in spatially overlapping ways (eg tourism and recreational fishing; or offshore wind farms and aquaculture). It could also allow for areas to be reserved for foreseeable uses that are deemed to be in the public interest but have not yet become viable, such as desalination or offshore wind energy.¹⁴⁵ However, care would need to be taken to ensure that any collaborative spatial planning process designed to allocate marine space did not become just a negotiation between sectors; *mana whenua* and the public also have strong interest in how resources are used and would need to have a strong voice.¹⁴⁶



A more proactive allocation of rights in particular spaces or zones could be achieved through marine spatial planning. This could distribute rights between different *uses* based on public interest principles, and potentially stakeholder consensus, although not necessarily different *users*.

Reallocation of rights

While an initial allocation of rights is important, equally so is how the system allows rights to be reallocated over time. This is reasonably straightforward where there are perpetual property rights capable of being traded on an open market (eg fishing quota or cap and trade systems for nutrient pollution in catchments).¹⁴⁷ As long as the market is operating well, rights can be purchased and sold freely.¹⁴⁸ As mentioned earlier, public authorities could even operate in such markets by purchasing quota or pollution rights and retiring them or leasing them to others.

The system also needs to contemplate reallocation when such markets don't operate. The current position is that a later consent cannot interfere with the conditions of an earlier one,¹⁴⁹ and that consented rights form part of the "existing environment" against which new proposals must be assessed.¹⁵⁰ In other words, there is a robust principle of non-derogation within the RMA (and, by implication, the EEZ Act).¹⁵¹

The concept of non-derogation also spans statutory boundaries. It can be seen, for example, in the provision that aquaculture operations must not have significant adverse impacts on fishing. Here, such impacts are essentially treated as a derogation of the property right in fishing quota, and the law contemplates agreements being reached and compensation being payable by aquaculture proponents.¹⁵² Notably, there are no provisions for impacts going the other way (ie fishing activities impacting on aquaculture).

It is fairly unusual to have a statutory mechanism for private agreements to be reached between two different uses in a "public" or "shared" space, but it is an approach which could be considered for wider use. However, such a loose "dispute resolution" process may become unwieldy if there were multiple parties involved in an increasingly congested space. It may also become inappropriate without a broader exercise guided by the *public* interest in how the marine space should be used.

Similar limitations can be seen in tools for allocating the use of subsurface space and minerals, which is premised on the assumption that mining is the only potential commercial use. Carbon capture and storage might be an alternative in the future, necessitating some form of agreement or compromise – a mechanism for reallocating subsurface space.¹⁵³

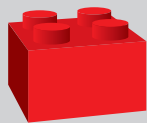
At the more directive end of the spectrum, thought could be given to the role of something like the Public Works Act, or access arrangements familiar to the mining context, to facilitate the deployment of publicly important activities even if they have some impacts on, or overlap



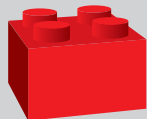
Dolphin watching vessel, Kaikōura

with, existing uses or rights.¹⁵⁴ For example, in the case of sustainable aquaculture for ecosystem enhancement, tidal energy generation, or the deployment of ecological infrastructure, rights could be compulsorily acquired and compensated for. Furthermore, the law could provide that rights could be extinguished – and reallocated – for repeated breaches of regulatory conditions, which is not currently possible under the RMA.¹⁵⁵

A future system will need mechanisms by which rights can be reallocated over time. Market mechanisms make this reasonably straightforward, but regulatory tools pose challenges. Some activities may require more security of tenure (eg wind farms may require a longer duration of rights), while others may need a more agile mechanism for reallocation to alternatives.



A formal forum could be established whereby new entrants or sectors wishing to use the marine space in a way that conflicts with existing uses could have some legal pathway to negotiate access rather than being excluded.



The Public Works Act or minerals-type access arrangements could be used to accommodate publicly important uses of the marine environment.

Reforms might contemplate more novel tools for reallocating rights, not just between different uses, but also between different locations. In particular, we may need to rethink what “occupation” rights mean in an age of climate and other environmental change. Some of the sites consented in the early days of marine farming have, for example, already proved unsuitable for the activity, particularly for the cold-water salmon species farmed in the Marlborough Sounds. The seawater in shallow and enclosed sites has been warming, fish have been dying and eutrophication of the seabed has been occurring. It has become clear that both environmental quality and farm productivity might be improved if they were relocated. However, the RMA does not envisage farms moving, with any relocation being treated as a new application and with no certainty of success. In such a context, marine farmers are understandably reluctant to give up existing rights to space.

One solution might be for existing aquaculture space to be tradeable for new areas, or for “backup” sites to be planned for and consented in advance. Another option would be to support a transition (where possible) towards aquaculture operations that are mobile (eg nets that could be towed rather than permanently fixed to the seabed),¹⁵⁶ and to provide for tools that allow those operations to shift between approved areas (a permit based on biomass rather than location). For example, in Norway licenses are attached to biomass which can be moved between different aquaculture areas depending on environmental conditions and market requirements, helping to avoid the risk that operators become trapped in marginal or unsuitable sites, as well as maximising productivity.¹⁵⁷

A mechanism could even be developed to shift permits granted under the RMA/NBA to ones granted in the EEZ, if open ocean aquaculture was to be encouraged. (This might be one benefit of merging these statutes together – see Chapter 11). As mentioned earlier in the context of property rights, one option would be for such “mobile” occupation rights to be perpetual and tradeable (since concerns about the environmental impacts of the right on a particular location would be less important).¹⁵⁸



Rights in a future system could be made more spatially agile, especially when it comes to fixed occupation rights. That is particularly relevant to aquaculture operations, which may need to shift or become more operationally mobile, but it could also apply in the future to other activities as environmental conditions change (eg floating wind farms¹⁵⁹ or tidal energy facilities).

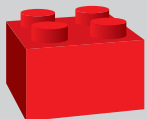
Environmental human rights

While rights to use resources, as discussed above, are commonly used to allocate scarce resources and to provide commercial certainty for investment, they can also be used in other, more novel, ways. For example, all New Zealanders could be given rights to the protection (rather than use) of the moana. There has been some experimentation with this idea, internationally, through the grant of environmental human rights (the right to a healthy environment, a right to clean water and so forth). It has even been enshrined in some countries’ constitutions, and in the Stockholm Declaration (1972).¹⁶⁰ In October 2021, the United Nations Human Rights Council went so far as to recognise that a clean, healthy and sustainable environment is a human right, with the High Commissioner describing the triple planetary threats of climate change, pollution and nature loss as the single greatest human rights challenge of our era.¹⁶¹

The grant of environmental human rights, of course, reflects an anthropocentric perspective; if using a resource would harm people's rights, and people choose to exercise those rights, then the system would gladly defend them against incursion. Some have warned that this has risks. It can lead to a dilution of sustainability, a justification for development, and an individual and property-focused "anthropocentric reductionism".¹⁶² In other words, it can be dangerous and unrealistic – even wishful thinking – to provide even a general right to a healthy environment if this is not accompanied by related environmental obligations and duties.¹⁶³ For one, people may simply choose not to exercise a right if it doesn't affect them personally or if they are "bought out" (ie externalities are internalised).

Environmental rights might potentially also clash with other rights, such as property rights in ITQ or Te Tiriti rights, requiring legal resolution. A high-level right would probably require extensive litigation to interpret in context (what degree of harm *would* be acceptable?). And it might even be used in improper ways to mask anti-competitive behaviour, as protections under the RMA have done in the past (eg the "supermarket wars").

But a general human right to a healthy marine environment (in the Bill of Rights Act or a new Oceans Act) could at least be helpful in highlighting when high-level government policy was in breach of such rights. This could be framed at a relatively general level, such as a right for environmental degradation not to create a substantial risk of illness, localised food depletion or ecosystem collapse, reflecting the principle of environmental justice and intergenerational equity. In other words, it would provide a legal mechanism to prompt government action and improve overall transparency, even if the only source of relief was a declaration in the courts. Indeed, that is the main point of the Bill of Rights Act. At a more granular level, environmental human rights could clarify things like the extent to which management of fish stocks and other marine activities is a matter in which the broader public has an interest (and a right to participate).



A future system could enshrine human rights to a healthy marine environment (eg in the Bill of Rights Act). However, that would have challenges in practice, and may not be a silver bullet solution to addressing environmental issues.

Rights for nature and legal personhood

There is a more unconventional way in which we could use the concept of "rights" in a future system. This is to give rights not to people, but rather to nature itself. Here, nature (or an aspect of it) is treated as an entity capable of having rights. This could be achieved through creating legal personhood. Such an approach would reflect the principle of ecological justice and an ecocentric ethic (see Chapter 7).

A rights for nature approach is "fundamentally subversive of economic orthodoxy".¹⁶⁴ In fact, it is much more than just a "tool" like a regulation, plan or property right. It is a fundamental reimagining of the system that cuts across multiple themes, including institutional design. It turns many things on its head. For that reason, we consider it in Chapter 13 as one starting point for a future system and it reappears across other chapters.

A spotlight on rights for nature

Legal personhood is a status that is granted to non-human entities to confer on them certain rights and obligations. It is most commonly used in the case of corporations (we are comfortable saying that "Google" has done something, even though it doesn't really exist). However, legal personhood can be applied to a wide range of things.

When applied to nature, legal personhood gives an entity standing in its own right, to go to court to defend its rights. It also allows the entity to advocate for its rights or interests. Of course, non-speaking entities require humans to act on their behalf in order to do these things. Various different statutory and institutional setups can be used to effect legal personhood (see Chapters 11 and 12). But the purpose of legal personhood is to recognise the intrinsic rights of nature and reformulate the way we think about the relationship between humans and the environment. Rather than a resource to be exploited, nature is a living system with needs and interests – an equal of humanity.

If we were to confer rights on nature in the marine environment, what would that mean? First and foremost, a decision would need to be made about what worldview(s) should underpin it. In much of the literature, the basic ethic driving personhood is an ecocentric one, but implementation of legal personhood for nature in Aotearoa New Zealand (so far, only on land

in the context of Te Urewera and the Whanganui River) has been heavily based on te Ao Māori conceptions of the world.¹⁶⁵

If we were to extend a rights for nature approach to the moana, there is a rich body of knowledge and understanding that comes from te ao Māori that we could draw on. For example, conferring rights on Tangaroa could bring with it a body of history, knowledge and practices that may help us determine his rights and interests. In a general sense, his mana and mauri could mean we need to cease degrading activities, including on land.

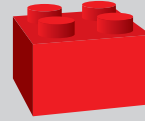
The ocean might even be regarded as a legal *community* rather than a legal *person*. There is not just one ancestor in the marine space. Hinemoana, the physical embodiment of the Pacific Ocean, Kiwa (an ocean guardian), Parawhenuamea (ancestor of freshwater), Rakahore (solid rock), and countless others representing sea creatures are present. While some may say it would be unwieldy and impractical to establish rights for all of these ancestors' interests, is this not the role already played by kaitiaki? And don't we already have complex structures that represent communities (councils) and shareholders (parent companies and subsidiaries)?

However, basing a marine legal personhood system exclusively on te ao Māori imports all of the implications of that normative system too. They cannot easily be separated. For example, in te ao Māori there is no recognition or explanation of Pākehā and tauwi New Zealanders' obligations and responsibilities towards the ocean. It would arguably be inappropriate to apply te ao Māori obligations and responsibilities, because Pākehā and tauwi do not have whakapapa to ocean ancestors, and thus have a very different relationship with the sea.

There are also other challenges with defining tikanga Māori through a Western judicial system, such as how to deal with metaphysical concepts alongside physical facts, and how to explain terms in English without isolating them from the cloak of their worldview.¹⁶⁶ This is not to say we shouldn't look to te ao Māori to inform a system of legal personhood; rather, we should ensure we think critically about its implications and identify nodes of agreement with other perspectives.

A system based on ecocentrism would have the benefit of applying to all New Zealanders, while sharing sentiments with a te ao Māori approach, such as around the inherent value of nature and the reliance of humans on it. However, a purely ecocentric approach may not be appropriate either. It does not recognise the special relationship Māori have with the environment and the ocean, and our Treaty obligations in this regard. Ultimately it will depend on whether we see the tool of legal personhood

as a mechanism purely for environmental protection, with Māori interests facilitated in some other manner; or whether it is a tool to empower Māori, with environmental protection only achieved as a secondary purpose through the exercise of tikanga in their relationship with the environment.



A future system could recognise that the moana itself has legally enforceable rights. The normative basis of recognising personhood for nature will be important, but potentially difficult to establish given the different worldviews of te ao Māori and te ao Pākehā.

Irrespective of its normative underpinnings, several design features of a rights for nature model would need to be considered. One would be the scale at which rights would be conferred. At one end of the scale, personhood could be conferred on the Ocean as a whole, potentially in the person of Tangaroa or Hinemoana. This would be akin to the constitutional-level protections for elements of nature seen in countries like Ecuador and Bolivia.



Inner Hauraki Gulf

Raewyn Peart

A spotlight on rights for nature in Ecuador and Bolivia

In 2008, Ecuador enshrined the rights of nature into its constitution, giving its mountains, rivers, forests, air and islands legally enforceable rights to exist, flourish and evolve. It is influenced by the indigenous concepts of *sumac kawsay* (good living) and Pachamama (Mother Earth). Article 71 reads:¹⁶⁷

Nature, or Pacha Mama, where life is reproduced and occurs, has the right to integral respect for its existence and for the maintenance and regeneration of its life cycles, structure, functions and evolutionary processes. All persons, communities, peoples and nations can call upon public authorities to enforce the rights of nature. To enforce and interpret these rights, the principles set forth in the Constitution shall be observed, as appropriate. The State shall give incentives to natural persons and legal entities and to communities to protect nature and to promote respect for all the elements comprising an ecosystem.

Bolivia has two pieces national legislation known as the Mother Earth Laws. The 2010 law sets out ten articles which form a principled framework. Article 7 sets out the rights of Mother Earth:¹⁶⁸

1. To life: The right to maintain the integrity of living systems and natural processes that sustain them, and capacities and conditions for regeneration.
2. To the diversity of life: It is the right to preservation of differentiation and variety of beings that make up Mother Earth, without being genetically altered or structurally modified in an artificial way, so that their existence, functioning or future potential would be threatened.
3. To water: The right to preserve the functionality of the water cycle, its existence in the quantity and quality needed to sustain living systems, and its protection from pollution for the reproduction of the life of Mother Earth and all its components.
4. To clean air: The right to preserve the quality and composition of air for sustaining living systems and its protection from pollution, for the reproduction of the life of Mother Earth and all its components.

5. To equilibrium: The right to maintenance or restoration of the interrelationship, interdependence, complementarity and functionality of the components of Mother Earth in a balanced way for the continuation of their cycles and reproduction of their vital processes.
6. To restoration: The right to timely and effective restoration of living systems affected by human activities directly or indirectly.
7. To pollution-free living: The right to the preservation of any of Mother Earth's components from contamination, as well as toxic and radioactive waste generated by human activities.

Other statements of principle are made, such as:¹⁶⁹

- Human activities, within the framework of plurality and diversity, should achieve a dynamic balance with the cycles and processes inherent in Mother Earth.
- Mother Earth is a dynamic living system comprising an indivisible community of all living systems and living organisms, interrelated, interdependent and complementary, which share a common destiny.
- The exercise of individual rights is limited by the exercise of collective rights in the living systems of Mother Earth. Any conflict of rights must be resolved in ways that do not irreversibly affect the functionality of living systems.

These approaches are quite different to the Aotearoa New Zealand application of legal personhood to date, in that they operate at a constitutional level, and place an onus on all citizens to uphold and enforce Mother Earth's rights. This is an approach that we could consider – for example, a “Tangaroa’s Law” which does not alter the nitty gritty of the existing ocean management system but allows citizens to hold the government to account (eg through recourse to declaration proceedings) when that system breaches the fundamental rights of the ocean.¹⁷⁰ This would have the advantage of creating a common set of ethics and principles across all the moana, recognising the interconnectedness and primacy of ecosystem health rather than just being focused sectoral objectives. However, its generality may make it only of symbolic value if it had to be interpreted in light of more specific and measurable objectives (eg MSY for fisheries management).

At the other end of the scale, rights and personhood could be conferred on more granular features of the marine environment. This could be particular populations or species (eg recognising the sentience and human-like characteristics of whales and dolphins, or the need to give agency to particularly vulnerable or threatened species that need it most). For example, a right to survive may be a more effective basis for setting limits for the mortality of threatened species than controls under a statute like the Fisheries Act (based on sustainable utilisation).

Some advocates propose that dolphins should be granted a non-human legal personhood status due to their high intelligence.¹⁷¹ Research on dolphins has shown that dolphins have distinct personalities from one another and can recognise themselves in the mirror. They have complex social structures and can work together to solve problems or teach each other tricks for fun. We already have legislation to specially protect marine mammals¹⁷² and our animal welfare legislation recognises that animals are sentient.¹⁷³ Whales and dolphins are often particularly significant to certain iwi and hapū. They are recognised as taonga (treasured) species in pūrākau (legends) such as that of Paikea, or Tinirau and Kae,¹⁷⁴ the popular consciousness (think of *Whale Rider*) and in settlement legislation.¹⁷⁵

However, there is a danger that prioritising whales and dolphins over all other marine life is inappropriate. Some warn that this encourages us to value species to the extent they are similar to humans.¹⁷⁶ We risk drawing wobbly moral lines between different species, especially when those lines are based on human's propensity to eat or make money from the death of certain species. Nonetheless, legal personhood could be an innovative way to ensure that important or taonga species are protected and able to thrive.

Alternatively, particular areas could become a legal “person”. That could include individual biogeographic regions or rohe moana, providing an opportunity to strengthen Māori connections with the moana. It would also recognise that te ao Māori places importance on metaphysical and non-living components of the marine environment, not just particular species or even ecosystems.¹⁷⁷ An area-based approach to personhood could also provide an opportunity to rethink MPAs and to tailor rights to the values and characteristics of a particular place. In short, each MPA could be a legal person which is an approach proposed by The Earth Law movement.¹⁷⁸ This approach has the advantage of drawing on the model already in existence for Te Urewera, which used to be a protected area (a national park). However, it could risk MPAs being treated in a more fragmented way rather than as a single network (if the rights of one could trump the overall impact of the whole).¹⁷⁹

A spotlight on the Wadden Sea

Tineke Lambooy, Jan van de Venis and Christiaan Stokkermans have proposed that a legal personhood model be applied to the Dutch part of the Wadden Sea.¹⁸⁰ The Wadden sea is a large tidal wetland which is highly valued by the people of the Netherlands and has significant environmental values. However, it is suffering from economic use, splintered governance and poor policy decisions. The proposal is to establish a “natureship”. This would grant the Wadden sea the rights and ability to act as a legal person.



Dusky dolphin, Kaikōura

A spotlight on legal personhood in Aotearoa New Zealand

Aotearoa New Zealand currently has three natural area/features that have been granted legal personhood: the Whanganui River, Te Urewera, and Taranaki Maunga (under finalisation).

Legislation for the Whanganui River recognises that:¹⁸¹

- Te Awa Tupua is a legal person and has all the rights, powers, duties, and liabilities of a legal person.
- Te Awa Tupua is an indivisible and living whole, comprising the Whanganui River from the mountains to the sea, incorporating all its physical and metaphysical elements.

Section 13 lays out Tupua te Kawa, which “comprises the intrinsic values that represent the essence of Te Awa Tupua”. These are expressed in both te reo Māori and English with an accompanying English explanation. The four values are:¹⁸²

- *Ko te Awa te mātāpuna o te ora*: the River is the source of spiritual and physical sustenance
- *E rere kau mai i te Awa nui mai i te Kahui Maunga ki Tangaroa*: the great River flows from the mountains to the sea
- *Ko au te Awa, ko te Awa ko au*: I am the River and the River is me
- *Ngā manga iti, ngā manga nui e honohono kau ana, ka tupu hei Awa Tupua*: the small and large streams that flow into one another form one River

The Te Urewera Act also confers personhood on Te Urewera, but is designed to:¹⁸³

establish and preserve in perpetuity a legal identity and protected status for Te Urewera for its intrinsic worth, its distinctive natural and cultural values, the integrity of those values, and for its national importance, and in particular to—

- (a) strengthen and maintain the connection between Tūhoe and Te Urewera; and
- (b) preserve as far as possible the natural features and beauty of Te Urewera, the integrity of its indigenous ecological systems and biodiversity, and its historical and cultural heritage; and

- (c) provide for Te Urewera as a place for public use and enjoyment, for recreation, learning, and spiritual reflection, and as an inspiration for all.

This purpose reflects the special significance of the iwi relationship to the area, but also draws on ecocentric principles and to an extent, other public interest factors.

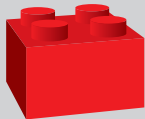
The principles for implementing the Act are that:¹⁸⁴

- (a) Te Urewera is preserved in its natural state:
- (b) the indigenous ecological systems and biodiversity of Te Urewera are preserved, and introduced plants and animals are exterminated:
- (c) Tūhoetanga, which gives expression to Te Urewera, is valued and respected:
- (d) the relationship of other iwi and hapū with parts of Te Urewera is recognised, valued, and respected:
- (e) the historical and cultural heritage of Te Urewera is preserved:
- (f) the value of Te Urewera for soil, water, and forest conservation is maintained:
- (g) the contribution that Te Urewera can make to conservation nationally is recognised.

Additionally, public access to Te Urewera must be maintained. The Board must act in a manner that achieves these principles as far as possible. The Act also sets out a framework for granting activity permits and concessions. Decision-making on activities therefore happens under the provisions of this Act, rather than piggybacking on other legislation such as the Conservation Act

This model provides an intriguing possibility when it comes to giving personhood and rights to individual MPAs (eg marine reserves, recreational fishing areas, ahu moana areas, seabed reserves etc). These could usefully contain their own regulatory frameworks rather than just piggybacking on tools in other frameworks (eg the Fisheries Act, RMA or EEZ Act), while recognising that there might be some shared jurisdiction or role (eg Fisheries New Zealand advising on recreational fishing limits). We discuss MPAs in Chapter 9.

Personhood could even be conferred at multiple scales – threatened species, protected areas, sentient creatures, mixed fish stocks, and the moana as a whole. After all, overlapping personhood is familiar in other areas of the law (eg parent companies and subsidiaries, trusts and charities, natural persons and partnerships).



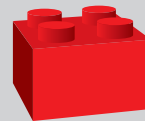
The scale at which the moana is granted rights is important. At one end of the scale, the ocean as a whole could be recognised as a person with rights. At the other end, particular places, species or features could be given personhood. Layers of personhood could even be established, just as we have layers of personhood for companies.

The exact nature of the legal rights conferred on aspects of the moana would also need to be determined. Any legal right requires specificity. This is where the novelty of a rights for nature approach could be most apparent, because it goes well beyond the familiar regulatory tools contained in frameworks like the RMA, Fisheries Act or conservation laws. By treating nature as a person, it opens up horizons for rights as broad as those enjoyed by human persons. For example, the ocean (or aspects of it) could have the right (or even the duty) to:

- make submissions on RMA-style processes when notified (eg plan changes, resource consent applications, NPSs, NESs) and other tools like taiāpure, catch limits, and MPAs.
- propose marine reserves and other MPAs.
- make submissions on conservation processes including development of general policies, conservation management strategies and plans, and concession applications.
- engage in government policy decisions and legislative reform proposals (eg submit on discussion documents and bills).
- lodge appeals with the Environment Court where its rights were infringed and take declaration proceedings to determine the exact nature of its rights in particular situations.
- Undertake novel forms of enforcement action more akin to common law action (eg trespass, nuisance, negligence) rather than relying only on traditional mechanisms under the RMA.

- Make claims for personal injury.
- Own and defend property from others.

Under the status quo, individuals can submit and advocate for positive environmental outcomes. However, there are two distinct benefits of granting the moana the ability to do so. First, its advocacy will likely have more weight or mana, because it comes directly from the entity (albeit through human representatives) and therefore more accurately express its interests. Secondly, the entity may have far more resources and capability to advocate than individuals or volunteer organisations, meaning that advocacy is more consistently present and can be pursued to a larger degree. For example, its guardian body would likely contain or have access to experts such as scientists, lawyers, etc, and in some cases it could have its own budget – such as the Whanganui River Te Korotere.



If the moana was granted legal rights, the system would need to be clear as to what those rights involve. They could be much wider than current environmental protections in the RMA or Fisheries Act. They could be as broad as the rights enjoyed by humans.



Pakiri Beach

Craig Potton

8.7 Other regulatory tools

New forms of regulatory tools could also be developed in a strengthened oceans management system. Some might be created within the framing of the NBA. For example, an intriguing model to build on is provided by water conservation orders (see the spotlight below). Although water conservation orders themselves are not applicable to the marine area (and require significant improvements),¹⁸⁵ they could provide a template for other “order-based” tools that could be deployed in our seas. We could, for example, see oceans conservation orders included in the NBA as a mechanism to respond quickly to adverse environmental changes.

Raewyn Peart



Ponui Island

A spotlight on water conservation orders

Water conservation orders are a hangover from pre-RMA legislation,¹⁸⁶ and seek to provide targeted protection to water bodies having high intrinsic value (eg wild rivers).

Once an order is in place, councils must ensure that their policies and plans are not inconsistent with it, and resource consents must not be granted if they are contrary to it. Any party can apply for an order.¹⁸⁷ The bulk of applications have been by the New Zealand Fish and Game Council (with the Department of Conservation only having made one application). Uniquely, they are not subject to Part 2 of the RMA, and have their own highly protective purpose nested within the Act,¹⁸⁸ in a way not dissimilar to separate conservation legislation (eg national parks or reserves). They could, in theory, be equally at home in other, more protective, conservation legislation.

These orders are a direct mechanism by which the “normal” RMA planning process can be bypassed, where there are outstanding values to be protected. But why should that mechanism be limited to freshwater, and only then where outstanding values remain? For example, rather than just protecting examples of relatively pristine elements of the environment (wild and scenic rivers), could a similar process be used to impose directive environmental “emergency” orders at the other end of the spectrum – where bottom lines have been infringed and a part of the ocean is unacceptably degraded (eg in a polluted estuary)?

Could they be used as a mechanism by which untouched but vulnerable elements of the marine environment could be protected in a faster way, to recognise their intrinsic value (eg biogenic reefs, hydrothermal vents, or critical habitat for threatened species)? And could they be used to prevent or revoke land use or discharge rights where these are impacting the equivalent of “wild and scenic rivers” in the oceans, such as marine reserves at the mouths of sediment polluted rivers? We are becoming more used to emergency responses to threats like Covid-19, but slower burn environmental degradation of the oceans is of a similar magnitude and urgency.

The concept of an emergency order is not dissimilar to the Randerson Panel's suggestion that a general regulation-making power should remain outside of national direction (NPSs and NESs) where there is an immediate risk of environmental damage.¹⁸⁹ It could be a temporary measure to allow breathing room in order to learn more about the pressures facing an area, and could even be accompanied by support and compensation for lost rights (eg a temporary restriction on harvesting plantation forests in a catchment, reducing stocking rates, or closing a fishery).¹⁹⁰ We see a similar thing in the context of biosecurity incursions, where emergency restrictions can be draconian (eg the removal of shellfish and disestablishment of marine farms, or closure of harbours to anchoring) where the economy is imperilled.¹⁹¹ Yet environmental issues can be similarly urgent, and warrant a similarly firm response where limits are at risk.

This “order” style tool could potentially also form the framing for rāhui as a formal tool under the NBA (or other legislation like the Fisheries Act or even MPA legislation). However, there would be questions to address as to who was able to apply for such an order, what could trigger it (eg environmental harm or broader cultural factors) and who would be responsible for granting it. Further questions would arise about the relationship between these orders and the tikanga practice of rāhui: would such orders supersede customary cultural practices, or would they offer an opportunity to enhance and deploy them?



Rāhui sign, Umupuia

A spotlight on rāhui

It has been noted that Māori had long-established protected areas within their marine environments, either for conservation or other reasons. One such practice used to prevent degradation is rāhui. Rāhui were the first form of MPAs to exist in this country, and continue to be set today under tikanga.¹⁹²

Rāhui is a tikanga practice which restricts and sets aside an area in order to give time for it to physically and spiritually rebalance.¹⁹³ It can be used for several purposes. A permanent rāhui may be imposed on food gathering at a battle site or place specifically associated with death, such as a drowning. It pays respect to the area and to the people who may have been affected by the event.

Another purpose of a rāhui is to replenish depleted resources and restore their mauri.¹⁹⁴ Rāhui are usually conceived of as temporary,¹⁹⁵ but they may persist over a long period of time if a problem is not resolved.¹⁹⁶ They can also differ in application: they may be a complete prohibition on entry and taking resources; be a ban on taking only one resource;¹⁹⁷ be a ban on a specific human activity;¹⁹⁸ be seasonal only;¹⁹⁹ or allow for the taking of resources but only with permission and in a specified way.²⁰⁰ Other various practices have been noted by the Waitangi Tribunal and have been summarised in *Hui-te-ana-nui: Understanding kaitiakitanga in our marine environment*.²⁰¹

Rāhui has no direct recognition in statute, although mechanisms such as temporary fisheries closures can be used as a means of enforcing aspects of a rāhui concerned with the harvest of kai moana (and they are often referred to in this way). Other mechanisms, like marine reserves, are less consistent with rāhui in that they have indefinite duration. This reflects a Western tradition of spatial separation of wilderness and human activity. Rāhui is also a tool to secure cultural practices, not just “environmental” ones as understood in the Western sense.²⁰² As such, the concept and practice of rāhui could in some cases present some tensions between Western and Māori ways of thinking.



Emergency orders could be utilised in a future system where environmental limits were imperilled. That could be one basis on which legally binding rāhui could be deployed.

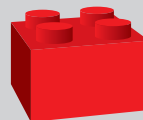
Regulatory tools under “non-marine” frameworks also warrant consideration. For example, how we address plastic waste is of enormous importance to our oceans, but (although much more could be done through the Fisheries Act, RMA and EEZ Act)²⁰³ a lot of this must be achieved largely outside “marine” statutes through product stewardship schemes, prohibitions on manufacture under the Waste Minimisation Act and measures under the Litter Act.²⁰⁴ The former could be amended so there is a *duty*, not just a *power*, for ministers to progress waste minimisation measures in order to meet targets (eg the volume of plastic entering the marine environment or being consumed by marine organisms). A similar accountability framework to that for climate change, could be established around this duty, whereby an independent agency measures progress and makes independent recommendations that must be considered (and reasons given for departure from them).

Similarly, the performance of our wastewater and stormwater infrastructure and urban centres can impact on the moana, meaning that a broad range of tools for funding and maintaining infrastructure, bylaws under the Local Government Act, and regulatory mechanisms like the Building Code have potential to make a difference.²⁰⁵ So too do vehicle emission standards and design requirements, given the cocktail of chemicals that runs into our stormwater drains from conventional vehicles.

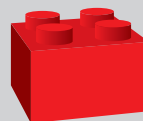
For example, the Building Code could have a refresh to focus on the marine impacts (and benefits) of construction materials and building design. Local Government Act infrastructure strategies could be strengthened to require impacts on the sea to be factored in. We have looked at such tools in our previous work on resource management

reform in the urban context, and the options presented there could contribute to better marine outcomes too (eg new build requirements for onsite stormwater management and pollution filtering mechanisms like rain gardens; connecting downpipes from older industrial roofs to wastewater systems to divert heavy metal runoff to treatment facilities; and avoiding investment in hard coastal protection structures where managed retreat is possible).

Some regulatory tools can also be found in unexpected places, such as the curiously broad regulation-making powers under the Territorial Sea, Contiguous Zone and Continental Shelf Act.²⁰⁶ That is hardly a fit for purpose tool for marine management, but if we are trying to squeeze possibilities out of the current system then things like this are worth a second thought.



The Waste Minimisation Act could contain a duty for ministers to progress regulatory tools like prohibitions and product stewardship schemes to meet mandatory targets for the reduction or elimination of plastic dangerous to marine life.



The Building Code, wastewater and stormwater infrastructure standards, and vehicle emissions standards could be strengthened to reduce the impacts of buildings and runoff on the marine environment.



Mangere wastewater treatment works

8.8 From regulatory to non-regulatory tools

Regulatory tools are essential for defending environmental limits, and can be used to make trade-offs (eg through planning and consenting frameworks). They can be used to frame the allocation of resources, by creating property rights or conferring regulatory permits. They are vital for recognising and protecting the interests of mana whenua (eg by safeguarding wāhi tapu and allowing for the exercise of customary rights). However, they have limitations when it comes to another key role the oceans management system might be expected to perform – pursuing positive outcomes.

That is not to suggest regulatory interventions are irrelevant when it comes to improving outcomes. They can be used in a number of innovative ways to drive positive change.

First, public authorities can have legal *duties* to take action. While that often relates to the delivery of goods and services (eg navigation infrastructure)²⁰⁷ it can also extend to specific obligations to enhance the natural environment. Such duties could be expanded in a future system. For instance, councils (or others) could be legally required to undertake wastewater and stormwater repairs and upgrades to ensure minimum standards are met for discharges to the marine environment by a certain date.²⁰⁸ Specific duties to restore particularly degraded marine ecosystems (as contemplated in the Seachange Tai Timu Tai Pari initiative) could be enshrined in statute, rather than just falling within an agency's general mandate to enhance biodiversity.

There could also be an active duty imposed upon authorities to conduct a large-scale joint operation to map marine habitats in all inshore areas. Indeed, it is incongruous that such effort has gone into meticulously tracking development capacity around high growth cities,²⁰⁹ when so little is known about the state of the marine environment which provides essential services to communities. As described earlier, habitat mapping has occurred in the United States, and has enabled the imposition of clear environmental limits.

A mapping and research effort could be accompanied by duties to actively monitor, not just agreed biophysical indicators (eg extent of kelp cover and expansion of activities like aquaculture), but also to evaluate and report on the effect that public interventions are having on those indicators (from practical things like kina removal to regulatory interventions like fisheries restrictions). Duties could be cross-agency ones, to ensure that indicators were measured and reported on in an integrated fashion.

A spotlight on environmental monitoring

Dr Marie Doole is of the view that “due to patchiness and poor utility” monitoring “is likely to underestimate the gravity of environmental problems”.²¹⁰ That may be the case in general terms, but the deficiency is exacerbated in the marine space, where monitoring is conducted for different purposes (eg fishing and conservation), and where what is happening in a highly fluid and connected environment is hard to see, measure and understand. Regional councils can struggle in the coastal marine area due to their size and capacity constraints.²¹¹ There are variations in collection techniques, the scale at which monitoring occurs, and data quality.²¹²

The introduction in 2015 of a national reporting framework with six-monthly domain-based reporting cycles was a major step forward.²¹³ The marine environment was specifically identified as a domain to be reported on. However, as the Parliamentary Commissioner for the Environment has pointed out, reporting on the data we happen to have does not remedy the problem of deficiencies and gaps in the data itself. Consistent time-series data is missing, habitats remain unmapped and poorly understood even when of vital importance to resources like fish stocks, and there is no real sense of what marine indicators should be chosen. Fisheries data is not integrated well, in terms of impacts on broader marine environments, or vice versa. And reporting does not take the next step of evaluating the effectiveness (or otherwise) of public interventions intended to influence indicators.

Nor is reporting a substitute for substantive duties to take corrective action in response.²¹⁴ No such duties are linked to environmental reporting at the moment. One option for a future system would be to locate environmental monitoring and reporting responsibilities within a centralised body that casts its eye over the whole marine space (eg an Oceans Agency or an Oceans Ministry), which is common overseas. Indicators – at least those relating to threatened marine species – could trigger least an obligation to commence a policy process if a certain status was breached..

To be meaningful, duties for public action need to be accompanied by funding (it costs a lot of money to *do* things), which can be hard to legislate for. However, a baseline level of funding could be provided by ringfenced

and independently managed funds (eg by directing it to specific purposes rather than general pots of money). We explore some options for doing so when we discuss funding tools further below.

Another way in which regulation could be used to create positive outcomes is through the use of accords, or negotiated regulation. These represent rules that are negotiated between a regulator and a regulated community, that are then made binding. That can encourage buy-in (or even championing) by sectors, and provide stepping-stones towards a new and improved status quo. For example, an accord might be reached on bottom trawling and other methods in exchange for assistance to transition to other methods and gear, or to manage forestry harvests in ways that do not involve clear-felling. However, it is crucial that environmental limits are not weakened in practice through negotiation. The public interest, and the objectives of the system, are more than just a bargain struck between sectoral or stakeholder interests.²¹⁵

Regulatory *restrictions* can also be used as an opportunity to enhance the natural environment, not just to mitigate adverse effects. This can be seen in the concept of a biobank, where harm to the environment can be used as a trigger to provide a net benefit.

A spotlight on offsetting

Environmental offsetting, generally speaking, allows a person to cause harm in one area or context in exchange for improvements in another. The original harm remains, so it is not the same thing as mitigation. In Aotearoa New Zealand, biodiversity offsets have been those discussed most.

Offsetting can be a disastrous road to environmental degradation if offsets are not proportionate to the harm caused. It is not an excuse to “purchase” rights to cause environmental harm, and offsets must be subservient to regulatory limits. Case law has provided useful constraints on the use of offsets under the RMA (eg the extent to which we compensate like for like),²¹⁶ and valuable work has been done on the topic as part of the collaborative development of an NPS for Indigenous Biodiversity.²¹⁷ Yet some have seen offsets as potentially inconsistent with strong ecocentrism, as trading off the wellbeing of one ecological system for that of another has ethical implications.²¹⁸ It can commodify biodiversity, which has intrinsic value as well as value through provision of ecosystem services.

However, using the principle of net gain when offsetting would mean that, in theory, harm in one place can be more than compensated for in another. Subject to careful constraints, this could be an extremely useful tool, as potential harm can be used as a trigger for overall enhancement. A positive example on this front can be seen in the United Kingdom’s Environment Act 2021, where some planning permissions are conditional on a net gain in biodiversity.²¹⁹

There remain issues with offsetting in the current system, not least the inconsistent approach across regions and lack of national direction. But one way forward could be the creation of a biobank. This is a scheme that, effectively, allows the measurement and trading of biodiversity values. Enhancement projects are purchased from a biobank by those who are required to provide compensation for biodiversity loss elsewhere. Under a biobank, offsetting requirements could be deployed in a more coordinated way to create, for example, functional ecological corridors rather than random islands of improvement. These could be used to supplement, or support, corresponding public funding for ecological enhancement – combining public and private resources to common aims in a coordinated way that maximises their overall positive impact.

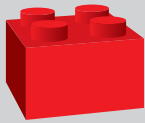
A marine biobank is a potentially interesting tool when it comes to the deployment of MPAs (see Chapter 9). The externalities caused by activities like fishing, mining, tourism or coastal development (or even forestry and agriculture) could potentially be calculated, and used as a metric to enhance “like for like” in other marine areas (eg to pay for active restoration of kelp forests, the eradication of pests, or “buying out” other interests like ITQ or occupation rights in an area). That could see an MPA network grow and be actively enhanced over time in a way that is spatially planned.

However, careful safeguards would be needed. Offsets would not be acceptable where impacts are on threatened species and ecosystems, and would be used only to address residual adverse effects on common and widespread species. Thorny ethical questions would also arise. Is it acceptable to exacerbate the decline of biodiversity in some places – eg beneath finfish farming operations close to shore – by providing offsets in MPAs elsewhere? Or to erode the protection of an MPA (eg by

continuing to allow sedimentation from catchments) if net benefits could be gained on the other side of the country or way out in the EEZ? It is difficult to know how much value we should assign to site or location-specific indicators versus regional or national level indicators (“overall” biodiversity gains). Moreover, why would policy makers not simply restrict damaging activities *as well as* creating MPAs? It is by no means obvious that one should be treated as a trade-off or “payment” for the other.

Marine biobanking would also face challenges not seen on land. It may be extremely difficult to estimate the impacts of some activities on biodiversity beyond the footprint of a fixed activity. We often simply don’t know what harm is being done. It would be even harder to *value* such things and provide “like for like”. And it may be more difficult to ensure that gains (eg through the removal of kina and planting of kelp) are maintained over long periods of time and in the face of systemic pressures like climate change. Maintaining kelp or coral gardens in the face of continued fishing and land-based pressures might prove much harder than purchasing and planting land with indigenous trees.

A future system could also provide a regulatory environment that is friendly to the deployment of desirable activities relative to undesirable ones (eg by cutting red tape). The Minister for the Environment has recently expressed an interest in embedding the Covid-19 fast-track consent process in a future resource management system, and that could be used to make activities like seaweed farming, sustainable shellfish farming or green infrastructure easier to progress than others. Some could even be given formal controlled activity status for which consent must be granted (relative to non-complying status for others) or given express weight in tendering processes for the allocation of marine space). However, all of this can be seen as the system picking winners, the legitimacy of which may depend on what the proper roles of the system are (see Chapter 6). Moreover, which activities are seen as “desirable” depends on one’s objectives, which are not necessarily clear. For example, should a future system be aiming for a large expansion of offshore aquaculture to create jobs, generate export earnings and potentially reduce pressure on wild fisheries and land-based protein sources? Should it make it easier for such things to occur?



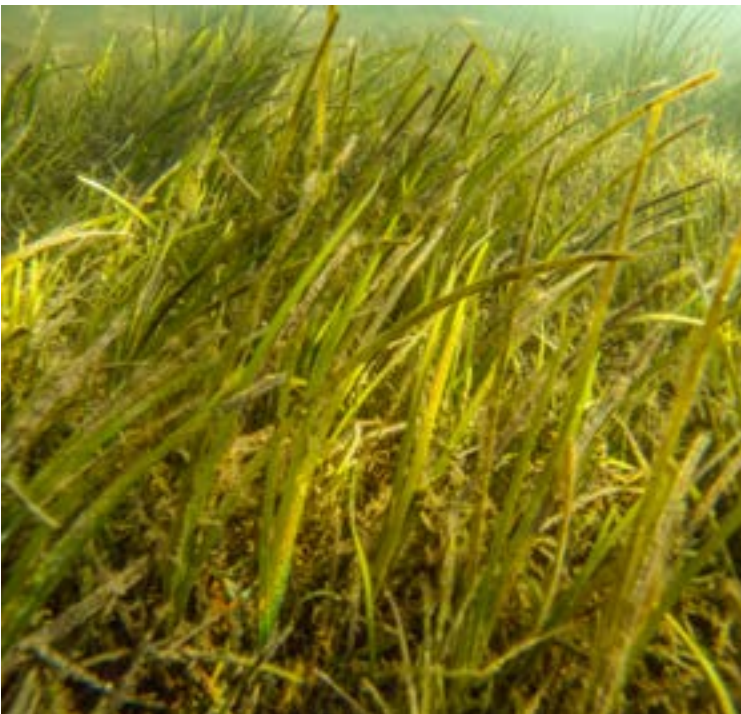
Regulatory tools could be used to drive positive outcomes in the marine environment. Duties on public authorities to pursue restoration and enhancement could be strengthened; sectoral accords could be reached which industries to provide improvements; a marine biobanking framework could be deployed; and fast track processes (or less stringent activity status) could provide an incentive for projects having public interest/environmental benefits.

There are limits to how much regulation can drive positive change in the marine environment. Arguably more is required than just stopping people doing things, letting nature regenerate itself, making public authorities do the heavy lifting, or providing offsets for harm. To improve outcomes, the system may need to start speaking the language of incentives, not coercion.

Funding tools

Non-regulatory tools are also essential to allow (and incentivise) public authorities to perform their roles. Earlier, we highlighted that a regulatory duty on public authorities to pursue positive outcomes requires consistent and meaningful funding. It can be extremely expensive to do anything in the marine environment.

Raewyn Peart



Seagrass, Whangaparapara harbour

But funding is required for almost anything to happen in a system reliant on the intervention of public institutions. Money is, alongside information, like the circulatory system of the oceans management system. Without it, institutions cannot make policies and regulations, undertake enforcement action, or provide advocacy. Money breathes life into all these things.

Some policy and regulatory roles are necessary because of the actions of specific people, such as consent holders, who should therefore bear the burden of associated processing, monitoring and enforcement costs.²²⁰ This is consistent with the polluter-pays, user-pays, and beneficiary-pays principles.²²¹ It also costs a great deal of money to develop policy and regulation, such as strategies, policy statements, and plans. Associated state of the environment monitoring is expensive too, as is the research needed to underpin regulatory tools in the marine environment (notably habitat protection).

Much of this work has application throughout the country or a region, and is in the public interest. As such, it is appropriate for it to be funded through general channels that reflect the whole regulated (and monitored) community (ie a general pool of funds distributed through central and local government budgeting processes).

However, the public cost of undertaking such functions can be considerable, especially for regional councils where core funding relies on a small (and sometimes shrinking) population and rating base. These councils have the same basic planning responsibilities as larger ones, but population is not always an indicator of the size of the marine area to be managed,²²² the complexity of activities being undertaken in it, or the degree of land-based pressures being faced.²²³

Funding needs for territorial authority functions are also significant, particularly when it comes to repairing, replacing and maintaining wastewater and stormwater infrastructure. Some have questioned whether the incentives and constraints provided by current funding and financing mechanisms will be sufficient for councils to address significant historical spending deficits on such infrastructure, as well as spiralling future costs. Wastewater upgrades needed to give effect to the NPS for Freshwater Management have been estimated to cost \$1.4–\$2.1 billion, with ongoing operating costs at \$60–\$90 million.²²⁴ This is a complex area, and one that we discussed in our work on urban resource management reform, and we refer readers there for more information.²²⁵ However, it is highly relevant to water quality in the moana, given the risks that wastewater and stormwater pose in estuaries and beaches.

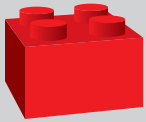
The relaxation of borrowing constraints on councils is not likely to be a viable solution, given that debt still needs to be paid back, and there are many other politically important priorities to fund on other fronts (not least a tidal wave of national direction to implement). Some may suggest we should look to the amalgamation of councils, or at least seek efficiencies from using shared services.²²⁶

Separate reform conversations about three waters are well underway, with the preferred option seeming to be institutional change (creating a series of arm's length, inter-regional water service delivery bodies) alongside funding changes (more user-charging and cross-subsidisation) to achieve equity and efficiency. From a marine perspective, it may be significant whether this includes stormwater functions as well as wastewater, given that the diffuse nature of stormwater runoff makes it both a more insidious threat and one that may, overall, prove even more expensive to address than wastewater upgrades.²²⁷ If billions are needed to give effect to the NPS for Freshwater Management, how much may be required to give effect to a revised NZCPS that took a much harder line approach to contaminants in stormwater? That is anyone's guess.

Greater standardisation of regional coastal plans would be possible and could save money – whether mandatory (through a template under national planning standards and reflecting a revamped NZCPS) or as an “off the shelf” model councils could choose to adopt if they wished. Alternatively, there could be more structure and principles around when councils should delegate functions, such as habitat mapping or enforcement, to others (eg the EPA or an Oceans Agency). Local Government New Zealand has floated the idea of allowing struggling councils to escalate tricky issues to a Crown agency if they choose to.²²⁸ That may well cover many marine issues, which are particularly complex.

However, a future system could instead tackle funding tools themselves. General rates are not likely to cut it when it comes to the kinds of marine biodiversity functions one might expect of regional councils in the wake of *Motiti*, given that these are highly dependent on the political will to raise funds. Opposition can be strong especially if the benefits are not apparent to existing residents who are paying for it (and who are the ones voting in local elections). If rates have not proved adequate to maintain core infrastructure in the face of community pressure to keep rates low, what chance does marine protection have? Will ecological infrastructure be subject to a “run to fail” approach like water pipes? If so, we might be faced with more than just the financial consequences of fixing it. Once ecosystems reach tipping points, it is hard to get them back.

Currently, targeted rates can be used by councils to reflect that some groups benefit or cost more than others when receiving services, but not to reflect the environmental outcomes they cause.²²⁹ This could be changed to enable greater use of targeted rates on land uses having an adverse impact on the moana. Value uplift capture could also be used in novel ways. This would involve public investments in the ecological health of the marine environment, such as MPAs with scenic and recreational values, being partially recouped by taxing any related bump in coastal property values upon sale.²³⁰

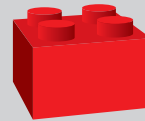


Targeted rates could be broadened to enable their use to charge land uses causing adverse impacts on the moana.

Greater central government funding in the form of grants could be forthcoming, although that may need some long-term predictability around where and whether (and for what purpose) funds will be paid. A project by project funding partnership may not address more systemic elements (eg ecosystem assessment, habitat mapping and the spread of complex or novel marine activities). The Biodiversity Collaborative Group has recommended that central government provide assistance for the proactive mapping of significant indigenous vegetation required by a proposed NPS for Indigenous Biodiversity, and the same may be required at sea.²³¹

Some things might be taken out of council hands entirely, and funded centrally. For example, new MPA legislation could place MPA identification and marine habitat mapping firmly with the Department of Conservation. Indeed, central government already has a relatively substantial degree of control over marine planning (eg in the Minister's approval power over regional coastal plans), so it may be fair for funding responsibilities to follow suit.²³²

Central government is not as constrained as local government in its sources of funding. But fluctuating political priorities and pork-barrel politics mean that flows of money through the budget process can still be haphazard. The influence of this on the Department of Conservation's advocacy role is a case in point, which is particularly noticeable for marine matters. It is to be hoped that a living standards budget may provide greater stability,²³³ and environmentally focused principles in the Public Finance Act itself might help. However, there is a risk that funding prioritises land-based protections over marine ones. A future system will need to consider tools that can defend the moana specifically, especially where funding is needed for things that have no direct short-term economic benefit.



Central government could provide greater funding assistance to regional councils to support marine management, and take over specific functions such as marine mapping.



Waka ama, Orakei Basin, Auckland

One potential funding tool available under the RMA (and presumably the NBA) would be resource rentals or charges. This is not about the allocation of rights, but rather about the allocation or distribution of value that is created *by* those rights, recognising that a non-private resource should see some of its value returned to the public and iwi/hapū. It raises money that can be earmarked for agencies to spend on environmental improvements or other actions that may be less politically expedient.

As explained below, charges are possible at the moment under the RMA, but are not uniform or consistent. One option would be to make charges compulsory through amendment to the Act, or to provide greater policy guidance through the use of national direction on the subject. A sub-option might be to charge for some types of use (eg where occupation of coastal space is exclusive) but not others. Essentially, that would create a subsidy for “positive” activities (eg potentially some forms of shellfish or seaweed aquaculture), creating not just a funding mechanism, but also an economic incentive for environmental enhancement.

Raewyn Peart



Mussel line, Kaiaraara Bay, Aotea

A spotlight on charging for use of the marine environment

Prior to the RMA, charges for the use of the coastal environment were levied under the Harbours Act 1950 by a variety of regulators, including Harbour Boards and the Marine Division of the Ministry of Transport.²³⁴ Other charges were levied under special Acts of Parliament relating to the coastal marine area.²³⁵ The result was an ad hoc charging regime which was applied inconsistently. During the mid-1990s, a report was commissioned to review charging regimes and it concluded that coastal charges could valuably employ the market mechanism of supply and demand, both to allocate coastal space in a manner that acknowledged its scarcity and to promote allocation of the resource to its best use. The report concluded that the existing system should be discontinued and replaced by some form of user or occupation charge, applying as an adjunct to the coastal planning regime and appropriately tied to local circumstances.²³⁶

The Resource Management Amendment Act 1997 provided regional councils with the express powers to charge for occupation of coastal space. Regional councils must now include statements in their regional coastal plans as to whether charging will be employed, and consider the balance of public and private benefits when determining whether or not to employ a regime.²³⁷

However, few councils have gone ahead with charging.²³⁸ Explanations put forward for not introducing such regimes include that, while it is generally considered appropriate to charge, the risks at this point in time are too high due to lack of clarity in the legislation, a number of barriers to implementation, and issues regarding equitable implementation.²³⁹ Others include (rather unbelievably) uncertainty around what coastal occupation charges are; the low level of coastal occupation in a district; uncertainty over future ownership and management of the foreshore and seabed; and the likelihood of a lengthy plan change process holding up other priorities.²⁴⁰

Occupation charges could be imposed whenever a coastal permit is granted, but another mechanism might be to raise money by auctioning or tendering rights via a competitive process (if that were a means through which rights were allocated in the future). However, care would need to be taken here; allocative choices may not just be about raising

the most funds, but rather seeking to prefer activities that would best achieve wider objectives (eg environmental enhancement, food security, social development etc).

Resource rentals could also be reintroduced for commercial fishing. That could, conceivably, even be extended to recreational fishing if there were a requirement for fishers to be licensed and report their catch. Recreational charges would be hotly contested on the grounds that fish for personal use should be free as long as sustainably caught. However, commercial resource rentals are by no means a new concept.

A spotlight on charging for fisheries

When the QMS was first introduced, quota owners were required to pay resource rentals to the government for utilising the fisheries resource. The purpose of the rentals was to enable government to recoup some of its fisheries management costs, as well as to disincentivise speculation in the quota market.²⁴¹ Resource rentals were, however, later replaced with cost recovery levies. These levies can cover a wide range of fisheries management costs, including management activities, enforcement, research, stock assessment and addressing the adverse effects of fishing on the marine environment and protected species. The legislation sets out a range of principles that apply to determining who should pay what costs, based on the user-pays or beneficiary-pays principle.

However, some have pointed out that this can incentivise opposition to research or management actions where they are not in the financial interest of quota holders. This is particularly the case when research is targeted at the stocks most at risk and therefore at those “for which TAC reductions are most likely”.²⁴²

We need to consider what the purpose of charging should be in a future system. Is it to enable a more efficient pooling of resources to improve stock management (utilisation) for those holding ITQ? If so, one might dispense with charging altogether and support quota holding groups to fund their own research directly. Or is it to fund research to support minimising or eliminating environmental impacts? If so, there might need to be clearer principles around how this is funded vis-a-vis research on stocks themselves. Or is it to assist the industry as a whole to innovate and transition towards the use of more sustainable gear and

methods? That would essentially be a cross-subsidy for those unable to do so. Or is it a mechanism to provide a return to the community by extracting some of the value conferred on users from granting exclusive access to a shared resource? There is a similar debate happening in the context of whether commercial interests should pay to bottle and export drinking water.²⁴³ At present, it can be unclear who the “customer” of levies is.

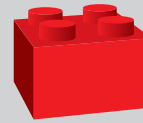
A future system could conceivably reimagine the idea of a resource rental as a funding tool to be used for the benefit of the marine environment as a whole, not just as a cost recovery mechanism or a stock-specific research tool. It could cover not just stock-related matters, but also fundamental biological studies relating to non-fished and protected species, and ecosystems-based research and habitat mapping. It could extend to tangible restoration initiatives to support not just fisheries but also broader ecosystem services. A rental could be calculated according to the value of quota,²⁴⁴ and be payable either annually or when quota is sold (although that may have challenges).²⁴⁵

Either way, funds could be distributed across various bodies responsible for pursuing positive marine outcomes, including mana whenua, government agencies and regional councils, or managed by an independent fund manager operating under a series of clear statutory principles. It could even be hypothecated to fund the activities of independent bodies like an Oceans Commission (see Chapter 12) which would require a secure funding streams.

At a bigger picture level, a more strategic and principled approach to charging for the commercial use of the marine environment might mean that multiple independent funding streams could be coordinated in the service of a wider vision. For example, charges could be imposed on land-based activities using the moana as a receiving environment for waste, simultaneously raising money, providing an incentive for reducing impacts, and more equitably sharing costs between activities in the marine environment (eg fishers) and those affecting them (eg farmers, foresters and urban developers). A nationally consistent approach to financial contributions under the RMA might be transformed to perform part of

this role. From an ecocentric perspective, all of these funding mechanisms might be recast not just as a resource rental (implying ownership), but rather as a payment or koha to nature held on trust by a co-governed entity charged with speaking for its interests (see Chapter 12). However, across all of the above, great care will need to be taken when it comes to relationships under te Tiriti o Waitangi. Charging for the use of resources (and where any funds are directed) can raise significant issues around tino rangatiratanga (eg the prospect of iwi paying to use resources where ownership is contested, where rights have previously been taken, or where settlements over the use of resources have been made),²⁴⁶ and detailed design would need to involve mana whenua.

A future system will need to carefully consider how it funds the activities needed to achieve its objectives. Charging for the use of marine resources would need to involve mana whenua in detailed design to address any issues around te Tiriti o Waitangi, settlements and where revenue is directed.



Greater use could be made of resource rentals and charges which could be imposed more consistently across all marine users.

How the system funds the activities of public authorities can have powerful side-effects on the behaviour of private persons. However, a future system could explore the more intentional use of economic incentives to drive positive outcomes. These may also offer alternative (and arguably more effective) ways to reduce harm, and can unleash the creativity of the private sector to find innovative solutions that command and control regulation may not. However, a regulatory “safety net” will still be required to establish firm environmental limits.

We explored economic incentives and other non-regulatory tools in our work on resource management reform, and summarise some possibilities in Figure 8.3 in the context of the moana. These go well beyond what is typically thought of as the oceans management system.

Craig Potton

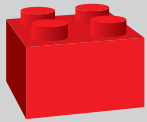


Sand mining, Pakiri Beach

<p>Charges and taxes</p>	<p>These are tools that impose a cost on activities, inputs or outputs. They can be described as fees, levies, taxes, prices, etc but can be regarded as a tax if they are not connected to the provision of a service.²⁴⁷ In a future system, there could be a green tax targeting environmentally-damaging activities. Some have proposed imposing taxes on inputs that can lead to pollution (eg fertilisers) if outputs cannot adequately be measured. Tax or rates rebates could be offered for activities that achieve positive outcomes like environmental restoration. Resource rentals, targeted rates and value uplift capture mechanisms have been mentioned above.</p> <p>A distortionary tax system is not necessarily a bad thing. Embedding incentives within the tax system could encourage behaviour to become durable societal norms, not just a regulatory obligation. But although the RMA has encouraged the use of economic instruments,²⁴⁸ the specific tools (or legal ability) to implement them have not been forthcoming and amendment would be needed for something like a green tax. Yet “regional councils in particular could be well placed to make use of environmental taxes to help carry out their environmental stewardship responsibilities”,²⁴⁹ which would be an interesting line of inquiry to pursue given their new-found jurisdiction over fishing activity under the RMA.</p> <p>There are also questions of equity to consider. If we were to impose taxes on, for example, commercial fishing for benthic impacts, it may be unjust not to impose comparable taxes on land-based activities or aquaculture. And the regressive impacts of green taxes need to be considered too; some fishers, for example, may not be in a position to alter their behaviour in response and require assistance to (for example) purchase new gear.</p>
<p>Subsidies</p>	<p>Subsidies provide financial rewards for particular activities or outcomes, and can be used to drive positive behaviour. In a future system, subsidies could be deployed in a more structured and strategic way (akin to the Land Transport Fund) to support private activities envisaged in a marine spatial plan (eg regenerative aquaculture) or to transition to more sustainable methods of use (eg to subsidise new fishing gear or commercial fishing boats). Subsidies could come from hypothecated funding raised by resource rentals or green taxes.</p>
<p>Deposit refund schemes</p>	<p>These involve the payment of a deposit when a product is purchased, which is repaid when the product is returned after use. This system can provide a strong financial incentive for returning products to a centralised facility to better ensure product reuse, safe disposal or recycling, including plastic products that might otherwise end up in the marine environment. However, it would have limitations when it came to things like microplastics.</p>
<p>Feebates</p>	<p>Feebates involve people being charged a fee (charge) if their behaviour or performance falls below a set level, or being provided a reward (subsidy) if they exceed it. This could, for example, potentially be used to provide incentives to invest in new fishing gear or mitigation measures for aquaculture.</p>
<p>Bonds</p>	<p>Bonds are provided by a person conducting an activity as a surety against potential harm and non-compliance with regulatory measures. The prospect of having to offer funds for remediation in advance incentivises preventative measures.</p>
<p>Ecosystem valuation</p>	<p>Putting a price on ecosystem services and natural capital could ensure that environmental harm is appropriately valued. Much depends on methods of valuation, and in an ecocentric view it may be inherently objectionable to commoditise the natural world in this way. It may be very hard, however, to measure ecosystem services in the marine environment, and even more broadly “ecosystem services analysis is regarded as not having progressed to a stage where there is an accepted framework for analysis”.²⁵⁰</p>

Behavioural nudging	Nudging works by providing subtle interventions based on key elements of human psychology. For instance, people take actions when it is relatively easy to do so, when they get enjoyment or benefit from it, when they are reminded about it in a timely way, where consequences are direct and observable, and when they are in competition with others in their peer group. So while there is considerable peer pressure in Aotearoa New Zealand not to litter on beaches and ease of access to rubbish bins, there is much less social stigma attached, and few alternatives to, washing one's car where cleaning chemicals enter stormwater drains flowing to the sea. A future system could be more geared towards psychological nudging by establishing a "nudge unit" within government and by requiring consideration be given to such methods. It might be particularly valuable in the context of encouraging compliance.
Public service messaging	Simply making people aware, through education campaigns, can sometimes change their behaviour. This could focus more specifically on the moana in a similar way that the Energy Efficiency and Conservation Authority engages in education on climate change and energy.
Green certification schemes	<p>A company or a product can be independently verified as meeting robust environmental standards. The overall idea is that businesses will choose to be bound by higher standards and pursue them rigorously, because consumers are becoming more environmentally discerning. A lot of private certification already goes on in the marine environment, under a number of brands.²⁵¹</p> <p>This concept could be expanded to include more activities or sectors impacting on the marine environment (eg for wastewater and tourism). It could also see an independent entity like the Parliamentary Commissioner for the Environment or an Oceans Commission be involved in certification (or at least accrediting those doing the certification), including linking corporate performance to statutory targets.</p> <p>Certification would often require close oversight of a complex supply chain, and an onus of proof on those seeking certification that standards have been met all the way along it. It could generate a domino effect of environmental improvement through corporate peer pressure. Large, publicly facing companies, like those directly selling products and services, would have an incentive to put pressure on their less publicly accountable suppliers, like manufacturers or primary producers, so that they could obtain certification.</p> <p>This could incentivise a move towards higher value use of marine resources. For example, bulk harvesting methods can have greater impacts on the environment, potentially reducing the market appeal of the products in high value markets.²⁵² Smaller vessels, or artisanal fishing, could arguably get "more bang for one's buck".</p>
The school curriculum	A review of the school curriculum could include considering the mandatory teaching of civics, environmental sustainability, and climate change, with a particular focus on the moana and its connection to land. There could also be a review of tertiary programmes, including the core requirements of vocational qualifications leading to careers in jobs central to oceans management, such as fisheries management and marine spatial planning.
Strengthening directors' duties	Directors' duties under the Companies Act could be expanded to focus not just on the interests of shareholders, but also on the interests of future generations, the public interest and the moana itself. This would reflect that (especially large) corporations can often be better placed than individuals to make a real difference to environmental outcomes. ²⁵³ The United Kingdom's Companies Act expressly provides that directors must take into account a company's impacts on the environment.
Expanding corporate financial disclosure requirements	Disclosing environmental risks forces firms to assess and understand their risks, and allows investors and shareholders to make decisions based on them. Recent years have seen significant international developments on this front. ²⁵⁴ While most of this is about climate risks, that could be expanded to include the disclosure of risks from environmental performance in the marine environment.

Figure 8.3: Summary of economic incentives and other non-regulatory tools



A number of non-regulatory tools could be explored to provide economic and behavioural incentives in a future system, including charges and taxes, a more systematic use of subsidies, feebates, bonds, nudging, reform of the school curriculum and professional training programmes, directors' duties and corporate disclosure requirements.

8.9 Concluding comments

In this chapter we have explored options for reforming the toolkit in a future system. This is by no means intended to be comprehensive. Other tools will be possible, and there will be a vast number of detailed policy questions to consider in how both existing and new tools are designed. All options will have pros and cons, and the best way forward will depend not just on how effective different tools are, but also on what objectives we want them to achieve.

Tools are also a product of the worldviews underpinning the system. Do we trust market mechanisms to deliver on public good outcomes? Should we, for example, establish stronger tradeable property rights in aquaculture as we have done for wild fisheries? Is the taxation of

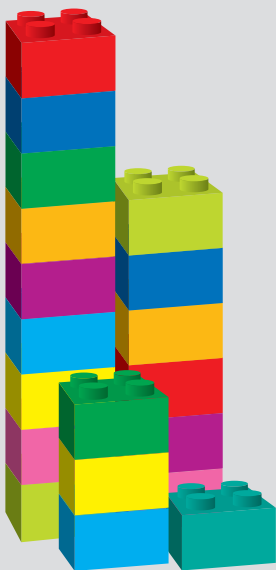
environmentally harmful activities the most efficient or ethical way to reduce harm? Or do we turn to regulatory tools – to set limits, to allocate (or reallocate) resources to the most publicly desirable use, and to support industries that the government of the day thinks are the way of the future?

Some of this might depend on the role we expect these tools to perform. It is reasonably clear that the setting of environmental limits cannot be done through non-regulatory means. On the other hand, it is equally obvious that non-regulatory tools have not been used to their full potential in, for example, enhancing the environment. Tools can overlap, too, and there may be a need to clarify when this is and is not appropriate. For example, there can be opposing views as to what fisheries regulations and RMA plans should cover, the extent to which market forces under the QMS render the need for some regulatory measures redundant, and whether we should rely on the ETS or broader regulations to reduce emissions of greenhouse gases.

It is also useful to think about not just individual tools, but also types of tools. That includes broad categories like regulatory and non-regulatory interventions, but also tools that operate in certain common ways or exist in close-knit relationships. These include things like property rights, planning frameworks and economic instruments. Another particularly important kind of tool is a MPA, which we turn to now in Chapter 9.

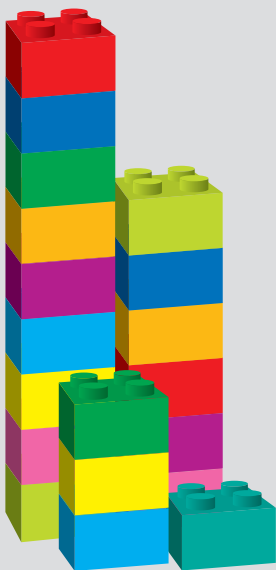


Muriwai beach



Summary of options for reform: Reconsidering the toolkit

- A National Planning Framework envisaged under the NBA provides an opportunity for marine matters to be more thoroughly integrated into other parts of national direction. New marine-related national direction could be created and existing documents reviewed through a marine lens. The NZCPS itself could be strengthened.
- The NZCPS could be paired with new national level regulations (an NES) to give effect to its objectives and policies, and/or it could be strengthened to provide for more extensive “implementation” provisions.
- An EEZ policy statement could provide a much stronger framework for consenting in the EEZ, increasing certainty for applicants and the environment.
- Combined plans under the NBA should provide more effective tools for marine management. Conservation planning could be strengthened to have a focus on marine bio-regional areas. A future system could also see the creation of a more developed planning framework for fishing.
- Fishing permits could be brought under a more environmentally policy-driven framework, which could operate alongside the QMS.
- Consenting could be applied more broadly to waste minimisation frameworks.
- Environmental limits contemplated by the NBA could be more targeted to the marine context, including by being more specific about what things limits must be created for. To be useful, a provision classed as a limit would need to have clear consequences different to other provisions.
- There are many regulatory tools available under the Fisheries Act that have been underutilised. A future system could provide more structure and direction around how (and why) they are to be deployed, and could characterise some of them as environmental limits.
- The Harvest Strategy Standard, which provides a more nuanced approach to setting TACs, could be formally incorporated into legislation.
- A hard “cap” could be placed on recreational take (a “total allowable recreational take”) as well as a commercial TACC. However, that could have challenges.
- Greater spatial separation could be created between recreational and commercial fishing activities by creating dedicated recreational fishing areas.
- A future system could provide more framing around how to set localised catch limits within QMAs, requiring boundaries to be redrawn based on ecological factors, or providing a more agile process (and trigger points) by which QMAs are (or must be) revised.



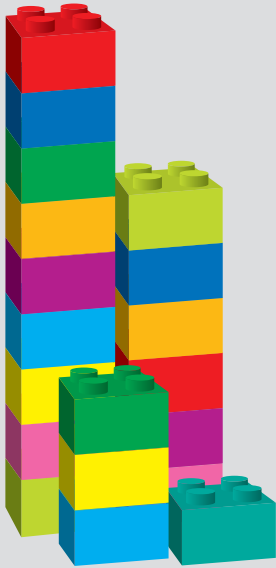
Summary of options for reform: Reconsidering the toolkit (continued)

- Tools under conservation legislation could be strengthened so that they provide for more powerful species-based environmental limits. In particular, the process for creating population management plans could be made simpler and/or focused only on the biological needs of protected species (rather than the impact on other users of the sea)
- The system could provide that a breach of environmental limits has clear and immediate consequences as a matter of law, including (to the extent necessary) overriding existing land use rights.
- The QMS could be expanded to include commercial operators of recreational fishing activities (eg charter boats), by requiring such operators to cover their catch by purchasing ACE.
- A parallel system of quota could be established for all recreational fishers (replacing tools like bag limits).
- Recreational fishing could be included in the same market as commercial quota, so (at least in theory) fisheries would go to their highest value use.
- Coastal permits under the RMA and EEZ Act could be made more akin to property rights by allowing greater tradability and longer duration, especially when it comes to aquaculture and other activities requiring a long-term presence (eg wind turbines affixed to the seabed or desalination facilities).
- Property rights in aquaculture could be established that are not linked to particular places or the need for coastal occupation (eg for mobile aquaculture operations based on a particular biomass rather than the area of operation).
- Aquaculture rights could be made more fungible with quota rights, meaning that trading of rights could occur across sectors.
- Cap and trade markets for some forms of diffuse pollution (eg nutrients) could be rolled out more proactively across relevant catchments, and include estuaries. Depending on the ability to measure or estimate runoff from individual properties, that could include sediment.
- Property rights could be eschewed in a future system by removing “ownership” over some things (eg buyback of private title and a different status for Crown owned minerals), and by declining to use market based tools for others (eg greenhouse gas emissions and occupation rights for aquaculture).
- Some have suggested altering or even replacing the property rights based QMS system. It could be undone through buyback of quota and implementing a permitting system. Alternatively, more targeted changes (eg more aggregation controls, creation of a public quota holder, and earmarking some quota for particular types of commercial fishers) could be made to soften the social impacts of market forces and incentivise environmental improvements.



Summary of options for reform: Reconsidering the toolkit (continued)

- Existing use rights for land could be overridden where environmental limits were threatened (eg to avoid significant impacts on protected areas in or near estuaries).
- National guidance could state what durations for resource rights are appropriate for different activities, in order to provide adequate commercial certainty, while also avoiding locking in sub-optimal uses.
- One option for allocating marine resources would be to use a first in time permitting system, whereby the first user to apply receives rights as long as the environmental impacts of an activity are acceptable. However, that can have a number of issues.
- More proactive, structured and competitive allocative mechanisms could be used (or made mandatory) in a future system, such as auctioning or attribute weighted tendering.
- A more proactive allocation of rights in particular spaces or zones could be achieved through marine spatial planning. This could distribute rights between different uses based on public interest principles, and potentially stakeholder consensus, although not necessarily different users.
- A formal forum could be established whereby new entrants or sectors wishing to use the marine space in a way that conflicts with existing uses could have some legal pathway to negotiate access rather than being excluded.
- The Public Works Act or minerals-type access arrangements could be used to accommodate publicly important uses of the marine environment.
- Rights in a future system could be made more spatially agile, especially when it comes to fixed occupation rights. That is particularly relevant to aquaculture operations, which may need to shift or become more operationally mobile, but it could also apply in the future to other activities as environmental conditions change (eg floating wind farms or tidal energy facilities).
- A future system could enshrine human rights to a healthy marine environment (eg in the Bill of Rights Act). However, that would have challenges in practice, and may not be a silver bullet solution to addressing environmental issues.
- A future system could recognise that the moana itself has legally enforceable rights. The normative basis of recognising personhood for nature will be important, but potentially difficult to establish given the different worldviews of te ao Māori and te ao Pākehā.
- The scale at which the moana is granted rights is important. At one end of the scale, the ocean as a whole could be recognised as a person with rights. At the other end, particular places, species or features could be given personhood. Layers of personhood could even be established, just as we have layers of personhood for companies.



Summary of options for reform: Reconsidering the toolkit (continued)

- If the moana was granted legal rights, the system would need to be clear as to what those rights involve. They could be much wider than current environmental protections in the RMA or Fisheries Act. They could be as broad as the rights enjoyed by humans.
- Emergency orders could be utilised in a future system where environmental limits were imperilled. That could be one basis on which legally binding rāhui could be deployed.
- The Waste Minimisation Act could contain a duty for ministers to progress regulatory tools like prohibitions and product stewardship schemes to meet mandatory targets for the reduction or elimination of plastic dangerous to marine life.
- The Building Code, wastewater and stormwater infrastructure standards, and vehicle emissions standards could be strengthened to reduce the impacts of buildings and runoff on the marine environment.
- Regulatory tools could be used to drive positive outcomes in the marine environment. Duties on public authorities to pursue restoration and enhancement could be strengthened; sectoral accords could be reached which industries to provide improvements; a marine biobanking framework could be deployed; and fast track processes (or less stringent activity status) could provide an incentive for projects having public interest/environmental benefits.
- Targeted rates could be broadened to enable their use to charge land uses causing adverse impacts on the moana.
- Central government could provide greater funding assistance to regional councils to support marine management, and take over specific functions such as marine mapping.
- Greater use could be made of resource rentals and charges which could be imposed more consistently across all marine users.
- A number of non-regulatory tools could be explored to provide economic and behavioural incentives in a future system, including charges and taxes, a more systematic use of subsidies, feebates, bonds, nudging, reform of the school curriculum and professional training programmes, directors' duties and corporate disclosure requirements.

Endnotes

- 1 Depending on how granularly one looks at tools, they could include very specific things like consent conditions or controlled activity standards.
- 2 Which may not even look the same if our legislation is designed or split differently in a future system: see Chapter 11 on legislative design.
- 3 Geoffrey Palmer “Law-Making in New Zealand: Is There A Better Way? [Harkness Henry Lecture]” (2014) 22 Wai L Rev 1.
- 4 They contain objectives and policies, but the main method by which those are achieved are through rules and consenting mechanisms.
- 5 For example, detailed drafting about how consenting frameworks work (eg changes to notification requirements, timeframes for decisions, rules around provision of additional information and so forth).
- 6 Some elements may not be regulatory, eg other methods to achieve objectives. However, these other methods are often referred to in plans but use other tools outside the plan itself to achieve (eg public projects funded by councils).
- 7 This direction would be consistent with the NZCPS, policy 22(3): “Control the impacts of vegetation removal on sedimentation including the impacts of harvesting plantation forestry.” While the NES for Plantation Forestry allows councils to impose more stringent restrictions to give effect to policy 22(3), the NES itself does not require it (and, if anything, makes it more difficult to do by requiring strong justification through section 32 reports).
- 8 As policy 22(3) is relatively weakly worded compared to others. On the need to include estuaries in the NPS for Freshwater Management, see Parliamentary Commissioner for the Environment *Managing our estuaries* (Office of the Parliamentary Commissioner for the Environment, Wellington, August 2020).
- 9 For example, onsite stormwater disposal and how urban form interacts with the coast (eg providing a buffer to avoid hardening of coastlines).
- 10 Recognising that not all sedimentation is about estuaries.
- 11 *Attorney-General v The Trustees of the Motiti Rohe Moana Trust* [2019] NZCA 532.
- 12 Furthermore, the NES for Marine Aquaculture does not give effect to the broader policies in the NZCPS.
- 13 For example, Environment Canterbury is only just now embarking on a review of its regional coastal plan which was notified in 1994 and made operative in 2005.
- 14 *Draft National Policy Statement for Indigenous Biodiversity* (Ministry for the Environment, 2019) at 6.
- 15 At 18, [3.4].
- 16 Much effort has focused on what the general precautionary principle and purpose of the Act say.
- 17 For example, it could provide for regulations to be promulgated classifying areas for a range of reasons, including because they are especially vulnerable due to their biophysical characteristics.
- 18 See Deidre Koolen-Bourke and Raewyn Peart *Conserving Nature* (Environmental Defence Society, Auckland, 2021), ch 4.
- 19 Influential in the sense that “avoid” can essentially impose bottom lines.
- 20 Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018) at 144.
- 21 The first place-based fisheries plan is set to be created in the Hauraki Gulf as a result of the Seachange Tai Timu Tai Pari process. Contrast the more general Fisheries New Zealand *National Inshore Finfish Fisheries Plan* (Discussion Paper 2019/18, November 2019), which is still in a draft phase.
- 22 The Prime Minister’s Chief Science Advisor has recommended to “improve the processes for input and engagement in fisheries management, particularly in regards to undertaking effective iwi and stakeholder engagement, public involvement, and adequate checks and balances.” Office of the Prime Minister’s Chief Science Advisor *The Future of Commercial Fishing in Aotearoa New Zealand* (February 2021) at 22.
- 23 Fishing permits can be revoked for non-compliance with things like an obligation to pay deemed values for fish that cannot be covered by ACE.
- 24 In the same way that an “objective” is a specific type of provision with a particular legal status under the RMA, but is also a general name for something we are trying to achieve.
- 25 On an Oceans Act, see the discussion in Chapter 11.
- 26 See the spotlight in Chapter 3.
- 27 See Kiely Mcfarlane and others *Environmental limits - A Proposed Framework for Aotearoa New Zealand* (Cawthron Institute, Report No 3530, June 2020) at 155; see also Parliamentary Commissioner for the Environment *Managing our estuaries* (Office of the Parliamentary Commissioner for the Environment, Wellington, August 2020).
- 28 Ministry for the Environment *Natural and Built Environments Bill* (Exposure Draft, 2021), cl 7(4) (c) and (d). And for all domains limits include the minimum biophysical state of the natural environment or of a specified part of that environment: see cl (3)(a).
- 29 The direct amendments to Southland’s Regional Coastal Plan through special legislation for Fiordland illustrates how the RMA could be used more proactively to achieve marine protected areas that are more nuanced than marine reserves. See the concept of “China Shops” in Fiordland (Te Moana o Atawhenua) Marine Management Act 2005, sch 12, Policy 4.1.4.
- 30 On biobanking, see later in this chapter and Marie A Brown *Banking on Biodiversity: the Feasibility of Biodiversity Banking in New Zealand* (Environmental Defence Society, Auckland, October 2017)
- 31 Moreover, some marine systems can change gradually rather than having a single “threshold” at which it tips into a new, less healthy state, so limit setting is not just about identifying ecological tipping points.
- 32 For example, based on a definition of ecological integrity or some other measure.
- 33 Kiely Mcfarlane and others *Environmental limits - A Proposed Framework for Aotearoa New Zealand* (Cawthron Institute, Report No 3530, June 2020).
- 34 Kiely Mcfarlane and others *Environmental limits - A Proposed Framework for Aotearoa New Zealand* (Cawthron Institute, Report No 3530, June 2020) at 155. at 155.
- 35 See the later spotlight on the Harvest Strategy Standard on arguments about the relevance of social and economic factors in determining limits under the Act.
- 36 Fisheries New Zealand “Central area fishing rules” Ministry for Primary Industries (2 July 2021) <www.mpi.govt.nz>; see also Fisheries New Zealand “Fishing rules” Ministry of Primary Industries (1 December 2021) <www.mpi.govt.nz>
- 37 Stephen Eayrs, Tony Craig and Katherine Short *Mitigation Techniques to Reduce Benthic Impacts of Trawling: MIT2019-02 A review for the Department of Conservation by Terra Moana Limited* (Terra Moana, April 2020). Technology is currently available which could be rapidly deployed to significantly reduce impacts: see Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018) at 87.
- 38 *LegaSea Rescue Fish Ika Rauora: A pathway to fish abundance and marine ecosystem recovery* (May 2020).
- 39 Compare Seachange Stakeholder Working Group Sea Change Tai Timu Tai Pari *Hauraki Gulf Marine Spatial Plan* (Hauraki Gulf Forum in partnership with others, April 2017).
- 40 Department of Conservation and Fisheries New Zealand *National Plan Of Action – Seabirds 2020* (Fisheries New Zealand, November 2019) at 13.
- 41 Source: Stephen Eayrs, Tony Craig and Katherine Short *Mitigation Techniques to Reduce Benthic Impacts of Trawling: MIT2019-02 A review for the Department of Conservation by Terra Moana Limited* (Terra Moana, April 2020), adapted from Robert McConnaughey and others “Choosing best practices for managing impacts of trawl fishing on seabed habitats and biota” (2020) 21 Fish and Fisheries 319.
- 42 That said, some tools are not the most effective; Cabinet papers have sought to address issues with them. See Minister for Ocean and Fisheries “Fisheries Amendment Bill: Strengthening fishing rules and policies: landings and discards” (2 July 2021); Minister for Oceans and Fisheries “Fisheries Amendment Bill: Strengthening fishing rules and policies: offences and penalties and agile decision-making” (2 July 2021); and Minister for Oceans and Fisheries “On-board cameras across the inshore fishing fleet” (2 July 2021) (eg landing and discard rules, cost recovery for cameras on boats)
- 43 Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018) at 67.
- 44 Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018) at 68.
- 45 Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018), chapter 4.
- 46 In the form of the Magnuson-Stevens Fishery Conservation and Management Act 16 USC §§ 1801-1891d (US).
- 47 See Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018).
- 48 As opposed to sustainability measures, which can be set under the Fisheries Act but also where the RMA has jurisdiction.
- 49 *Royal Forest and Bird Protection Society v Minister of Fisheries* [2021] NZHC 1427.
- 50 At [47].

51 At [92].

52 At [199] and [200].

53 At [108].

54 At [117].

55 At [144].

56 At [166].

57 Terrance Quinn "Ruminations on the Development and Future of Population Dynamics Models in Fisheries" (2003) 16(4) *Natural Resource Modelling* 341.

58 See Fisheries New Zealand *Fisheries Assessment Plenary: Stock Assessments and Stock Status* (Ministry for Primary Industries, Volume 1, May 2021), preface.

59 For example, Fisheries New Zealand *Aquatic Environment and Biodiversity Annual Review 2019-20: A summary of environmental interactions between the seafood sector and the aquatic environment* (Fisheries Science Team, Ministry for Primary Industries, Wellington, June 2020) at 427 and following, at 427 and following.

60 Ministry for the Environment and Statistics New Zealand *Our marine environment 2019* (ME 1468, October 2019).

61 John McKoy "Fisheries resource knowledge, management, and opportunities: Has the Emperor got no clothes?" (paper presented to Royal Society of New Zealand Conference, Wellington, November 2006).

62 Parliamentary Commissioner for the Environment *A review of the funding and prioritisation of environmental research in New Zealand* (Office of the Parliamentary Commissioner for the Environment, Wellington, December 2020).

63 Parliamentary Commissioner for the Environment *A review of the funding and prioritisation of environmental research in New Zealand* (Office of the Parliamentary Commissioner for the Environment, Wellington, December 2020).

64 Experience being, for example, the presence of a super abundance of marine life for diving, tourism and so forth.

65 This would not be without its challenges, including the inevitable tension between sectors when establishing where such areas should be located.

66 For example, in the Hauraki Gulf none of the QMAs coincided with known biological fish stocks. See Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018) at 14.

67 See Chapter 2.

68 See Fisheries Act 1996, ss 24-26.

69 Fisheries New Zealand *Fisheries Assessment Plenary: Stock Assessments and Stock Status* (Ministry for Primary Industries, Introductory Section, November 2021) at 257.

70 Fisheries New Zealand *Fisheries Assessment Plenary: Stock Assessments and Stock Status* (Ministry for Primary Industries, Introductory Section, November 2021) at 283.

71 David E Pollock *Evolution of Life-History Patterns in Three Genera of Spiny Lobsters* (1995) 57 *Bulletin of Marine Science* 516.

72 John D Booth and Bruce F Phillips "Early Life History of Spiny Lobster" (1994) 66 *Crustaceana* 271.

73 Ivan A Hinojosa and others "Differing environmental drivers of settlement across the range of southern rock lobster (*Jasus edwardsii*) suggest resilience of the fishery to climate change" (2016) 26 *Fisheries Oceanography* 49.

74 Stephen M Chiswell and John D Booth "Sources and sinks of larval settlement in *Jasus edwardsii* around New Zealand: Where do larvae come from and where do they go?" (2008) 354 *Marine Ecology Progress Series* 201.

75 Stephen M Chiswell and John D Booth "Sources and sinks of larval settlement in *Jasus edwardsii* around New Zealand: Where do larvae come from and where do they go?" (2008) 354 *Marine Ecology Progress Series* 201.

76 Stephen M Chiswell and John D Booth "Sources and sinks of larval settlement in *Jasus edwardsii* around New Zealand: Where do larvae come from and where do they go?" (2008) 354 *Marine Ecology Progress Series* 201.

77 Fisheries New Zealand *Fisheries Assessment Plenary: Stock Assessments and Stock Status* (Ministry for Primary Industries, Introductory Section, November 2021) at 291-311.

78 Fisheries New Zealand *Proposal to review the recreational rules for the CRA 2 rock lobster fishery* (Ministry for Primary Industries, Discussion Paper No 2018/17, November 2018) at 5.

79 Fisheries New Zealand *Fisheries Assessment Plenary: Stock Assessments and Stock Status* (Ministry for Primary Industries, Introductory Section, November 2021) at 297-311.

80 See Deidre Koolen-Bourke and Raewyn Peart *Conserving Nature: Conservation System Reform Issues Paper* (Environmental Defence Society, Auckland, 2021).

81 Fisheries Act 1996, s 15(1).

82 Marine Mammals Protection Act 1978, s3H(1)(n).

83 Kate Mulcahy and Raewyn Peart *Wonders of the Sea: The protection on New Zealand's marine mammals* (Environmental Defence Society, Auckland, 2012) at 80-82.

84 The distinction between the two can sometimes become blurred, as we explored in Chapter 6 (whether the QMS is still regarded as a "tool" or just as part of the fabric of a capitalist society).

85 Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation – Synthesis Report* (Environmental Defence Society, Auckland, December 2018) at 230; Garrett Hardin "The tragedy of the commons" (1968) 162 *Science* 1243.

86 Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018) chs 2-3, chs 2-3. See Chapter 7 on the "economic" worldview that might give rise to such thinking. That is not to say such a view is *bad* – it is simply one way among many that things can be valued.

87 Although that is not always necessarily the case, as it assumes the operation of an effective market.

88 More accurately, some people's later interpretation of Ronald Coase's work. See RH Coase "The problem of social cost" (1960) 3 *Journal of Law and Economics* 1.

89 Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018) at 19-21, 57.

90 Despite a 2005 strategy for managing the environmental effects of fishing

91 Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018), ch 5.

92 See, for example, Eric Crampton *Refreshing Water: Valuing the Priceless* (New Zealand Initiative, 2019).

93 Although there has more recently been a recognition that other tools (including regulatory ones) may be needed to achieve climate objectives (especially where whole sectors. Such as agriculture, are not included in the emission trading scheme).

94 Largely based on financial return to public coffers through royalty payments, although that conversation about how to manage minerals in the public interest – including for climate change reasons – is a live one.

95 Small areas of foreshore and seabed became privately owned as a result of their historical incorporation into land or seabed titles or as a result of the sea eroding away land.

96 Marine and Coastal Area (Takutai Moana) Act 2011.

97 See David Grinlinton "The nature of property rights in resource consents" (2007) 7 *BRMB* 37; Laura Fraser "Property rights in environmental management" (2008) 12 *NZJEL* 145; Barry Barton "The nature of resource consents" in *Environmental law: National issues intensive* (New Zealand Law Society, 2009); *Resource Management Act 1991*, s 122.

98 Ownership is not possible in the EEZ anyway under international law.

99 Although a true cap for commercial fishing is not technically there either, given the ability to pay deemed values where ACE cannot be obtained. That said, deemed values are designed to ramp up as more fish are landed without ACE cover, effectively limiting catch.

100 See Raewyn Peart *Farming the Sea: Marine aquaculture within resource management reform* (Environmental Defence Society, Auckland, 2019) at 104.

101 See the project's working paper at 94-96.

102 On including estuaries within the management units in the NPS FM more broadly, see Parliamentary Commissioner for the Environment *Managing our estuaries* (Office of the Parliamentary Commissioner for the Environment, Wellington, August 2020).

103 A lack of "ownership" might require a shift in language from "royalties" to "resource rentals" or "koha" – see later in this chapter.

104 In the impacts of bottom trawling, see Karen McVeigh "Bottom trawling releases as much carbon as air travel, landmark study finds" *The Guardian* (online ed, 17 March 2021).

105 On marine spatial planning, see Chapter 10.

106 Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018) at 26 and following.

107 Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018) at 101.

108 Quota themselves are not linked to or conditional upon measures to protect the environment in the same way that permit issued under the RMA is.

109 Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018) at 17.

110 Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018) at 28 and following.

- 111 LegaSea *Rescue Fish Ika Rauora: A pathway to fish abundance and marine ecosystem recovery* (May 2020).
- 112 LegaSea *Rescue Fish Ika Rauora: A pathway to fish abundance and marine ecosystem recovery* (May 2020) at 3.
- 113 Michael Neilson "Land Back: Green Party calls for revamp of Treaty settlements" NZ Herald (online ed, 7 February 2022) <www.nzherald.co.nz>
- 114 Retirement of quota would, to have any effect, rely on a proportional reduction in the TAC and, ultimately, a higher abundance target than MSY.
- 115 Fisheries New Zealand "Crown fishing quota and ACE tenders" (10 February 2022) Ministry of Primary Industries <www.mpi.govt.nz>
- 116 Offshore would be more difficult as there is less potential for an independent fleet so far from shore.
- 117 Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018) at 96.
- 118 Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018) at 105.
- 119 Indeed, conferring rights by regulatory means can have advantages over relying on the trading of private property, since the former can be more closely linked to regulatory obligations.
- 120 Resource Management Review Panel *New Directions for Resource Management in New Zealand* (June 2020) at 200, 267, 268, and 281.
- 121 Resource Management Review Panel *New Directions for Resource Management in New Zealand* (June 2020) at 200, 267, 268, and 281.
- 122 Resource Management Act 1991, ss 123-123A.
- 123 Derek Nolan "Coastal" in Derek Nolan (ed) *Environmental and Resource Management Law* (6th ed, LexisNexis, Auckland, 2018)
- 124 *Golden Bay Marine Farmers v Tasman District Council* EnvC Wellington W42/2001, 27 April 2001.
- 125 Waitangi Tribunal *Ahu Moana: The Aquaculture and Marine Farming Report* (Wai 953, 2002) at 4-5.
- 126 Resource Management (Aquaculture Moratorium) Amendment Act 2002.
- 127 Aquaculture Reform (Repeals and Transitional Provisions) Act 2004.
- 128 Māori Commercial Aquaculture Claims Settlement Act 2004, ss 7-18 and 19-31.
- 129 Aquaculture Reform (Repeals and Transitional Provisions) Amendment Act 2011.
- 130 See generally Te Ohu Kaimoana *Annual Report 2017* (Te Ohu Kaimoana, September 2018) at 15.
- 131 Resource Management Act 1991, s 165G.
- 132 Ministry for the Environment *Water Programme of Action: Water Allocation and Use – Technical Working Paper* (ME 561, December 2004) at 22.
- 133 Waikato Regional Council "RFT SAS2016-2017-1800 – for release of fish farming space Coromandel marine farming zone" (26 January 2017) New Zealand Government Electronic Tenders Service (GETS) <www.gets.govt.nz/>
- 134 Resource Management (National Environmental Standards for Marine Aquaculture) Regulations 2020.
- 135 *Central Plain Water Trust v Ngai Tahu Properties* [2008] NZRMA 200 (CA) at [92]. See generally Philip Milne "Allocation of public resources under the RMA: Implications of *Aoraki Water Trust v Meridian*" [2005] RM Theory & Practice 146 at 156; Peter Skelton "Project Aqua reveals flaws in regional planning" *The National Business Review* (online ed, Auckland, 19 September 2003).
- 136 Although other mechanisms are possible (eg where there is no competition).
- 137 And the courts have made some creative interpretations of the RMA to suggest that the merits of different applications close in time can be compared: see *Central Plains Water Trust v Synlait Ltd* [2009] NZCA 609, [2010] 2 NZLR 363 (CA) at [89]; *Synlait Ltd v Central Plains Water Trust* [2010] NZSC 32, [2010] NZRMA 257; *Ngai Tahu Property Ltd v Central Plains Water Trust* [2009] NZSC 24
- 138 For example, this could be similar to the idea of monitoring demand through housing and business land assessments under the NPS on Urban Development, where the appearance of pressures trigger the use of tools.
- 139 *Ngāi Tai ki Tāmaki Tribal Trust v Minister of Conservation* [2018] NZSC 122.
- 140 It is interesting to ponder whether allocative choices could in the future effectively be made by holders of customary marine title, given that they will have powers to refuse permission for resource consents and concessions within their areas of customary marine title.
- 141 That said, such problems are equally likely to appear under a first-in-time consenting approach.
- 142 And for space to be auctioned, tendered or consented on a first in time basis within those areas.
- 143 See generally Raewyn Peart *Farming the Sea: Marine aquaculture within resource management reform* (Environmental Defence Society, Auckland, 2019).
- 144 See *Seachange Stakeholder Working Group Sea Change Tai Timu Tai Pari Hauraki Gulf Marine Spatial Plan* (Hauraki Gulf Forum in partnership with others, April 2017) at 4, 42 and 81.
- 145 Desalination would have a small marine footprint, but its impacts (eg discharge of highly saline water) could be spatially wider and have impacts on other activities such as aquaculture (see Chapter 2).
- 146 Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation – Synthesis Report* (Environmental Defence Society, Auckland, December 2018) at 233.
- 147 Although not problem free; there can still be interventions relating to aggregation and competition, and issues of equity and efficiency where a market is not operating as intended.
- 148 That is not necessarily the case; much quota is held as investments by large holders.
- 149 See *Aoraki Water Trust v Meridian Energy Ltd* [2005] 2 NZLR 268 (HC) at [36]; *Dart River Safaris Ltd v Kemp* [2000] NZRMA 440 (HC) at [27]; *Southern Alps Air v Queenstown Lakes District Council* [2008] NZRMA 47 (HC).
- 150 *Queenstown Lakes District Council v Hawthorn Estate Ltd* [2006] NZRMA 424 (CA).
- 151 Renewable electricity generators have highlighted the need for very long period of certainty, including in the marine space.
- 152 On compensation declarations and aquaculture agreements, see Fisheries Act 1996, ss 186ZD-186ZR.
- 153 On the idea of unitisation agreements, where arrangements can be beneficial for both parties, see Barry Barton, Kimberley Jane Jordan and Greg Severinsen *Carbon capture and storage: Designing the legal and regulatory framework for New Zealand* (Centre for Environmental, Energy and Resources Law, University of Waikato, 2013).
- 154 On access arrangements, see Crown Minerals Act 1991, ss 47-80.
- 155 On issues with the extinguishment of consented rights for non-compliance, see Marie A Brown *Last Line of Defence: Compliance, monitoring and enforcement of New Zealand's environmental law* (Environmental Defence Society, Auckland, 2017); Marie A Brown *Last Line of Defence: Compliance, monitoring and enforcement of New Zealand's environmental law* (Environmental Defence Society, Auckland, 2017).
- 156 See for example Skara Bohny "Aquaculture experts drawn to Nelson for open ocean expo" *Stuffmedia* (online ed, 6 August 2019).
- 157 Raewyn Peart *Farming the Sea: Marine aquaculture within resource management reform* (Environmental Defence Society, Auckland, 2019) at 104.
- 158 See generally Raewyn Peart *Voices from the Sea: Managing New Zealand's Fisheries* (Environmental Defence Society, Auckland, 2018). Although that may still raise similar issues of social equity similar to what we have seen with the fisheries QMS.
- 159 Paola Rosa-Aquino "Floating wind turbines could open up vast ocean tracts for renewable power" *The Guardian* (online ed, 29 August 2021).
- 160 Article 1 describes a right that humans have to adequate conditions of life in an environment of a quality that permits a life of dignity and wellbeing.
- 161 See: United Nations "Access to a healthy environment, declared a human right by UN rights council" (media release, 8 October 2021); The human right to a clean, healthy and sustainable environment HRC Res 48/13.
- 162 Klaus Bosselmann *The Principle of Sustainability: Transforming Law and Governance* (Ashgate Publishing, Surrey, 2008) at 6, 111, 114.
- 163 Klaus Bosselmann *The Principle of Sustainability: Transforming Law and Governance* (Ashgate Publishing, Surrey, 2008) at 6, 111, 127.
- 164 Tim Hazledine "Economics and the resource management system" in Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation – Working Paper 3* (Environmental Defence Society, Auckland, September 2018) at 154.
- 165 Greg Severinsen, Raewyn Peart and Bella Rollinson *The Breaking Wave: A conversation about reforming the oceans management system in Aotearoa New Zealand* (Environmental Defence Society, August 2021) at 84-86 for a more in-depth explanation.
- 166 See Greg Severinsen, Raewyn Peart and Bella Rollinson *The Breaking Wave: A conversation about reforming the oceans management system in Aotearoa New Zealand* (Environmental Defence Society, August 2021) at 86.
- 167 See the English translation at Georgetown University "Constitution of the Republic of Ecuador" Political Database of the Americas (31 January 2011) <www.pdba.georgetown.edu>
- 168 See the English Translation at World Future Fund "Law of Mother Earth: The Rights of Our Planet - A Vision from Bolivia" (7 December 2010)<<https://www.worldfuturefund.org/>

Projects/Indicators/motherearthbolivia.html>

169 See arts 2(1), 3, and 6.

170 This could even be reflected in a regional agreement in the South Pacific, building upon shared understandings of the moana as an ancestor.

171 Lin Edwards "Scientists say dolphins should be treated as non-human persons" *Phys.org* (6 January 2010); Thomas White *In Defense of Dolphins: The New Moral Frontier* (Blackwell Publishing, Malden, 2007); "BBC Dolphins deserve same rights as humans, say scientists" *BBC News* (21 February 2012).

172 Marine Mammals Protection Act 1978.

173 Animal Welfare Act 1999.

174 Rata Pryor Rodgers "The Connection of Māori to Whales" (Gateway Antarctica Supervised Project Report, University of Canterbury, 2017). This source also mentions whakatauki that attest to taonga status such as "He taonga no Tangaroa, I waihotia mo tātou, Ko te tohorā ki uta": "This whale cast on the beach is the treasure left to all of us by the great god of Tangaroa".

175 See for example Ngāi Tahu Claims Settlement Act 1998.

176 See Katharina Kropshofer "Whales and dolphins lead 'human-like lives' thanks to big brains, says study" *The Guardian* (online ed, 16 October 2017). See also the discussion in Greg Severinsen, Raewyn Peart and Bella Rollinson *The Breaking Wave: A conversation about reforming the oceans management system in Aotearoa New Zealand* (Environmental Defence Society, August 2021) at 84. at 84.

177 For example, Tangaroa embodies the spiritual significance of the marine environment, not just living things.

178 Earth Law Centre "Earth Law Framework for Marine Protected Areas" (12 September 2017) <<https://www.earthlawcenter.org/oceanrights>>

179 For example, if there were benefits to be had in shifting one MPA to create a better connection to another.

180 Tineke Lambooy, Jan van de Venis and Christiaan Stokkermans "A case for granting legal personality to the Dutch part of the Wadden Sea" (2019) 44(6-7) *Water International* 786.

181 Section 12.

182 Section 13.

183 Section 4.

184 Section 5.

185 See Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation Synthesis Report* (Environmental Defence Society, Auckland, December 2018) at 109.

186 They were first brought into the statutory framework in 1981 through an amendment to the Water and Soil Conservation Act 1967 and were carried through into Part 9 of the RMA in 1991.

187 Resource Management Act 1991, s 201.

188 Section 199.

189 Resource Management Review Panel *New Directions for Resource Management in New Zealand* (June 2020) at 204.

190 Some fishers have noted the lack of support for those suffering from fisheries closures when support is forthcoming for farmers on land.

191 Biosecurity Act 1993, s 144; Fisheries Act 1996, s 16. Biosecurity New Zealand *The New Zealand Government Biosecurity Response Guide* (Ministry for Primary Industries, October 2018).

192 For example, temporary closures under ss 186A and 186B of the Fisheries Act 1996 are referred to as rāhui (although they differ slightly from traditional rāhui). See Kimberley Maxwell and Wally Penetito "How the use of rāhui for protecting taonga has evolved over time" (2007) 2 MAI Review.

193 Te Ahukaramū Charles Royal "Kaitiakitanga – guardianship and conservation - Understanding kaitiakitanga" (24 September 2007) Te Ara - the Encyclopedia of New Zealand <<http://www.TeAra.govt.nz/en/artwork/11563/hiua>>

194 Nicola Wheen and Jacinta Ruru "Providing for Rāhui in the Law of Aotearoa New Zealand" (2011) 120(2) *Journal of the Polynesian Society* 169. This conservation rāhui is distinct from, for example, a tapu related rāhui that is placed following a death in the area; Kimberley Maxwell and Wally Penetito "How the use of rāhui for protecting taonga has evolved over time" (2007) 2 MAI Review.

195 Nicola Wheen and Jacinta Ruru "Providing for Rāhui in the Law of Aotearoa New Zealand" (2011) 120(2) *Journal of the Polynesian Society* 169

196 Kimberley Maxwell and Wally Penetito "How the use of rāhui for protecting taonga has evolved over time" (2007) 2 MAI Review.

197 Hirini Moko Mead *Tikanga Māori: living by Māori values* (revised edition, Huia Publishers, Wellington, 2016) at 197.

198 Nicola Wheen and Jacinta Ruru "Providing for Rāhui in the Law of Aotearoa New Zealand" (2011) 120(2) *Journal of the Polynesian Society* 169.

199 For example, the Tītī hunting season ends with a rāhui until the next season: Peter Garven, Marty Nepia and Harold Ashwell *Te whakataua kaupapa o Murihiku: Ngai Tahu resource management strategy of the Southland region* (Aoraki Press, Wellington 1997) at 29.

200 For example, a Ngai Tahu rāhui on shellfish required the approval of the marae group and certain practices to be followed in order to collect shellfish in the area: Peter Garven, Marty Nepia and Harold Ashwell *Te whakataua kaupapa o Murihiku: Ngai Tahu resource management strategy of the Southland region* (Aoraki Press, Wellington 1997) at 29.

201 At 122.

202 Maxine Jacobs "Legal interpretations of wāhi tapu and rāhui sought in landmark rights hearing" *Stuff* (online ed, 17 February 2022) <<https://www.stuff.co.nz/pou-tiaki/300519200/legal-interpretations-of-wai-tapu-and-rhui-sought-in-landmark-rights-hearing>>

203 For example, gear requirements under the Fisheries Act.

204 See Waste Minimisation Act 2008 and Litter Act 1979.

205 Local Government Act 2002 and Building Regulations 1992.

206 Territorial Sea, Contiguous Zone and Continental Shelf Act 1977, ss 8 and 27.

207 See Maritime Transport Act 1994, s 200.

208 As under the current Local Government Act 2002.

209 Required under the NPS on Urban Development.

210 The size and resourcing of councils is particularly significant; and there are variations in collection techniques and data quality. See Marie A Brown *Last Line of Defence: Compliance, monitoring and enforcement of New Zealand's environmental law* (Environmental Defence Society, Auckland, 2017) at 193-194; Beca Carter Hollings and Ferner Ltd *Stock Take of RMA Monitoring Across Selected Agencies* (BECA, Final Report, May 2012).

211 Beca Carter Hollings and Ferner Ltd *Stock Take of RMA Monitoring Across Selected Agencies* (BECA, Final Report, May 2012).

212 Marie A Brown *Last Line of Defence: Compliance, monitoring and enforcement of New Zealand's environmental law* (Environmental Defence Society, Auckland, 2017), at 194.

213 Environmental Reporting Act 2015.

214 Marie A Brown *Last Line of Defence: Compliance, monitoring and enforcement of New Zealand's environmental law* (Environmental Defence Society, Auckland, 2017).

215 For example, this is recognised in the mandatory approval by the Environment Court of mediated consent orders under the RMA. Parties to litigation are not free to come to any agreement they wish; any agreement must comply with the purpose of the Act.

216 *JF Investments v Queenstown Lakes District Council* EnvC Christchurch C48/2006, 27 April 2006 at [42]; *Royal Forest and Bird Protection Society of New Zealand Inc v Buller District Council (No 2)* [2013] NZHC 1346, [2013] NZRMA 293 at [54], [72], [122].

217 See *Report of the Biodiversity Collaborative Group* (Biodiversity (Land and Freshwater) Stakeholder Trust, October 2018); see also Fleur Maseyk and others *Biodiversity Offsetting under the Resource Management Act* (Local Government New Zealand, September 2018)

218 See Tim Denne "Resource management law reform and economics" in Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation - Working Paper 3* (Environmental Defence Society, Auckland, September 2018). See also Joan Martínez-Alier and Ronald Muradian "Taking stock: the keystones of ecological economics" in Joan Martínez-Alier and Ronald Muradian (eds) *Handbook of Ecological Economics* (Edward Elgar, Cheltenham, 2015) 1

219 James Good and others "Emerging Details Of The New Biodiversity Net Gain Regime" (24 January 2022) Mondaq <www.mondaq.com/uk/>

220 See Marie A Brown *Last Line of Defence: Compliance, monitoring and enforcement of New Zealand's environmental law* (Environmental Defence Society, Auckland, 2017).

221 See Chapter 7.

222 For example, that of sparsely populated Northland is larger than that of Auckland.

223 Such as the forestry pressures faced in the Marlborough Sounds alongside aquaculture development.

224 R Ward "Three waters review" (Paper presented to the New Zealand Building Nations Conference, 2018). See also New Zealand Council for Infrastructure Development (now Infrastructure New Zealand) *Integrated governance, planning and delivery: A proposal for local government and planning law reform in New Zealand* (Productivity Commission, August 2015) at 9.

- 225 Greg Severinsen *Reform of the Resource Management System: The urban context* (Environmental Defence Society, Auckland, August 2020).
- 226 In 2013, provisions were added to the Local Government Act to encourage councils to use shared services models. A review of local government settings more broadly is being undertaken, which might see boundaries changed in the future.
- 227 For example, buying urban tracts of land to install wetlands, diverting some stormwater flows to wastewater, imposing restrictions on what can go into stormwater drains.
- 228 Martin Jenkins A “blue skies” discussion about New Zealand’s resource management system (Local Government New Zealand, December 2015) at 39.
- 229 See New Zealand Society of Local Government Managers *Rating knowhow: A guide to the Local Government (Rating) Act 2002* (Local Government New Zealand, November 2013).
- 230 This tool recognises that people benefit in that the value of their land goes up from proximity to publicly funded goods. For example, rapid transit has increased property prices near central Auckland stations by up to 20 percent (Infrastructure New Zealand correspondence, 25 October 2018). See generally Transport for London *Land value capture* (February 2017). While it is usually looked at as an infrastructure funding tool, environmental amenity can also improve property prices and the tool could be used in novel ways to protect or enhance those ecosystems.
- 231 *Report of the Biodiversity Collaborative Group* (Biodiversity (Land and Freshwater) Stakeholder Trust, October 2018) at 92.
- 232 That is part of a broader conversation about the extent to which increased obligations on councils should be met with central government funding to discharge them.
- 233 Treasury “Our Living Standards Framework” (12 April 2022) <www.treasury.govt.nz/>
- 234 Derek Nolan “Coastal” in Derek Nolan (ed) *Environmental and Resource Management Law* (6th ed, LexisNexis, Auckland, 2018) at [5.62].
- 235 At [5.62].
- 236 At [5.62].
- 237 Resource Management Act 1991, s 64A(1).
- 238 At present, Environment Southland is the only regional council to have introduced coastal occupation charges, although Marlborough District Council has recently included a coastal occupation charge in its proposed Marlborough Environment Plan which will be levied through the annual plan process.
- 239 See, for example, Tasman District Council *Draft Plan Change 56: Coastal Occupation Charges - Report on Assessment of Alternatives under Section 32 of the Resource Management Act* (February 2015).
- 240 See, for example, Gisborne District Council *Proposed Variation 15 to the Proposed Regional Coastal Environment Plan* (date unknown) at 9.
- 241 Raewyn Peart *Voices from the Sea: Managing New Zealand’s Fisheries* (Environmental Defence Society, Auckland, 2018) at 18.
- 242 Raewyn Peart *Voices from the Sea: Managing New Zealand’s Fisheries* (Environmental Defence Society, Auckland, 2018) at 18.
- 243 See Jörn Scherzer and Jim Sinner “Resource Rent: Have you paid any lately?*” (Ecologic, Research Report No 8, December 2006) at 9; Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation Synthesis Report* (Environmental Defence Society, Auckland, December 2018) at 260.
- 244 Fishers used to be charged a proportion of the overall research budget based on the value of their quota holdings, until 2001 saw a change of focus to charge only those directly benefiting or causing the need for expenditure.
- 245 It relies on actual trading within market to raise funds.
- 246 Including fisheries and aquaculture, but also extending to things like the recognition of customary marine title and protected customary rights under the MACA Act.
- 247 Tim Denne “Resource management law reform and economics” in Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation – Working Paper 3* (Environmental Defence Society, Auckland, September 2018).
- 248 The RMA even lists the investigation of such things as a specific function of the Minister for the Environment, without providing any framework or authorisation for creating them.
- 249 New Zealand Productivity Commission *Local government funding and financing* (2019) at 160.
- 250 Tim Denne “Resource management law reform and economics” in Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation – Working Paper 3* (Environmental Defence Society, Auckland, September 2018). See also Lin Roberts and others *The nature of wellbeing: How nature’s ecosystem services contribute to the wellbeing of New Zealand and New Zealanders* (Department of Conservation, March 2015).
- 251 For example, the Marine Stewardship Council’s Fisheries Standard.
- 252 Raewyn Peart *Voices from the Sea: Managing New Zealand’s Fisheries* (Environmental Defence Society, Auckland, 2018) at 107.
- 253 Jared Diamond *Collapse: How Societies Choose to Fail or Survive* (2nd Edition, Penguin Books, London, 2011).
- 254 Daniel Kalderimis and Nicola Swan *Sustainable Finance Forum Legal Opinion 2019* (Chapman Tripp, October 2019).

9 Spatial protections in the toolkit



9.1 Introduction

Not all tools are inherently spatial. For example, many measures applied to achieve sustainable fisheries (eg gear restrictions) and prevent marine pollution (eg wastewater standards and ship design requirements) have no real spatial element. However, many regulatory tools can apply (or apply differently) to a particular geographical area within Aotearoa New Zealand's waters. For example, regional coastal plans apply to a whole region, but can impose different rules, policies and objectives in particular zones. The same can be achieved under the EEZ Act (although it has not really been done in practice). Conservation frameworks provide for the establishment of wildlife and marine mammal sanctuaries, fisheries are generally managed according to spatially defined fisheries management areas, and spatial protections are provided for submarine cables and pipelines. Shipping lanes and AMAs are also geographically fixed.

However, the concept of a “marine protected area” is more than just a blanket term for any tool having a spatial dimension. It is focused on the benefits that restrictions or controls in a particular place could have for marine *biodiversity*. Conversations about MPAs generally focus on the extent to which we have the right tools in the regulatory toolbox to achieve that.

The system can have many tools that are expressed spatially. However, it is possible to think about a distinct category of spatial tool called an MPA, which focuses on protecting an area in ways that will improve marine biodiversity.

Defining an MPA

It is not always clear what an MPA is. Its definition is broad and vague¹ and the term is used to mean different things across the world.² Some consider MPAs to be any area that has a degree of protection higher than its surroundings.³ By that logic we already have many tools capable of creating protected areas. A more ambitious definition of an MPA from the IUCN is “a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieving the long-term conservation of nature with associated ecosystem services and cultural values”⁴ and “only those sites where the main goal or outcome is conserving nature should be considered MPAs”.⁵ That is quite a different approach.

Aotearoa New Zealand's non-statutory MPA Policy (2005) defines an MPA as “an area of the marine environment especially dedicated to, or achieving, through adequate protection, the maintenance and/or recovery of biological diversity at the habitat and ecosystem level in a healthy functioning state”.⁶ This definition echoes the conception of MPAs found in

the Convention on Biological Diversity. The Aotearoa New Zealand policy definition does not require the main *goal* of a tool to be conservation so long as the *effects* meet the New Zealand MPA Protection Standard.⁷

To meet this standard, a management tool must enable a healthy functioning state to be achieved through maintenance or recovery.⁸ Maintenance and recovery include “where feasible, the avoidance of change from human induced pollution, sedimentation, fishing, tourism or visitor-based disturbance, undersea or seafloor commercial activities, or scientific/research activities”.⁹ The tool must provide for this at the levels of:¹⁰

- a) physical features and biogenic structures that support biodiversity;
- b) ecological systems, natural species composition (including all life-history stages), and trophic linkages; and
- c) potential for biodiversity to adapt and recover in response to perturbation.

Significantly, MPAs may be subject to some level of extractive use so long as the standard is otherwise met.¹¹ The MPA Policy also recognises two categories: type 1 and type 2 MPAs. Permanent no-take marine reserves, where no disturbance is allowed, are established under the Marine Reserves Act and are classified as type 1 MPAs. Type 2 MPAs are other protected areas established outside of the Marine Reserves Act, which provide enough protection from the adverse effects of fishing to meet the MPA Protection Standard.¹² Type 2 MPAs can include mātaītai reserves and undersea cable and pipeline protection areas, if – and only if – site assessment shows that such areas meet the Standard. Many management tools have the effect (either intended or incidental) of protecting marine habitats and ecosystems.¹³ The division between type 1 and type 2 MPAs bears no relationship to any internationally recognised MPA classification system.¹⁴ The tools set out in Figure 9.1 arguably amount to MPAs in Aotearoa New Zealand.¹⁵



Motu Manawa-Pollen Island marine reserve

Raewyn Peart

Management tool	Instrument	Restrictions	Application	Responsible Minister/ Department
Marine reserves	Marine Reserves Act 1971	Generally no-take areas – all extractive activities are prohibited. A broad range of activities can be managed, controlled or excluded	Territorial sea	Department of Conservation; concurrence of Minister of Fisheries required
Marine mammal sanctuaries	Marine Mammals Protection Act 1978	A range of restrictions necessary to protect marine mammals, depending on the marine mammal sanctuary	Territorial sea and EEZ	Department of Conservation
Marine parks/ specially protected areas	Fisheries (Amateur Fishing) Regulations 2013; Special legislation – eg Hauraki Gulf Marine Park Act 2000 and 2001 amendment; Sugar Loaf Islands Marine Protected Area Act 1991	A range of restrictions depending on the marine park	Territorial sea	Department of Conservation; bespoke management bodies
Submarine cables and pipeline protection zones	Submarine Cables & Pipelines Protection Act 1996; Submarine Cables & Pipelines Protection Order 2009	No fishing or anchoring except for ships being used for research by or for the Ministry for Primary Industries, as long as the research is undertaken without directly or indirectly attaching a vessel to the seabed	Territorial sea and EEZ	Ministry of Transport
Mātaimitai reserves	Fisheries Act 1996, s 186; Declaration of Mātaimitai Reserve and Appointment of Tāngata Kaitiaki/tiaki Notice	In general, commercial fishing is prohibited, and recreational/customary fishing is regulated by the tāngata kaitiaki/tiaki	Territorial sea	Minister of Fisheries; local iwi/hapū
Taiāpure	Fisheries Act 1996, Part 9; Fisheries Order	Special management region for areas which have special customary significance to iwi or hapū as a source of food	Estuarine or coastal areas	Minister of Fisheries; management committee nominated by local Māori community can make recommendations
Section 186 temporary closures	Fisheries Act 1996 (Temporary Closure) Notice	A range of restrictions depending on the particular area, such as the closure of fishing areas, restrictions on fishing methods, or the closure of fisheries for up to two years. Designed for customary use. Must be supported by tangata whenua	Territorial sea	Minister of Fisheries
Benthic protection areas	Fisheries Act 1996; Fisheries Act (Benthic Protection Areas Regulations 2007)	Prohibits the use of dredge and restricts the use of trawl nets within 100 metres of the seabed	EEZ	Minister of Fisheries

Management tool	Instrument	Restrictions	Application	Responsible Minister/ Department
Seamount closures	Fisheries Act 1996; Commercial Fishing Regulations	Prohibits seabed and midwater trawling on some specified seamounts	EEZ	Minister of Fisheries
Areas closed to specific fishing activity	Fisheries regulations	For example, numerous spatial trawl, set net, and dredging closures. Spatial seasonal closures to protect various nursery and spawning grounds	Territorial sea and EEZ	Minister of Fisheries
Regional coastal plans	RMA	May be used to prohibit certain activities in identified areas	Territorial sea	Regional councils
New Zealand Coastal Policy Statement	RMA	May be used to prohibit or control certain activities in a dedicated area	Territorial sea	Minister of Conservation
Regulations	EEZ Act	May be used to prohibit certain activities in a dedicated area	EEZ	Minister for the Environment

Figure 9.1: Tools which arguably amount to MPAs in Aotearoa New Zealand

MPAs can be defined in quite different ways. Spatial protection tools in the current system are, under existing policy, regarded as MPAs if they meet a protection standard. Their primary purpose does not have to be the maintenance or restoration of biodiversity.

But why does it matter if something is called an “MPA” if it has no legislative meaning in the domestic context? Some may question whether the blanket term itself is useful, and whether focusing on the design of more specific tools is a better approach. Indeed, it can be something of a red herring if MPAs are treated as the only tools to be deployed.

However, defining an MPA can be a useful way to gauge the effectiveness of marine biodiversity protection, given the widespread acceptance that spatial protections of some kind are needed to achieve meaningful progress. In other words, if we define it well, we can set targets and measure progress more easily.

Equally, if MPAs are defined too loosely, then progress can become misleading. A wide definition allows countries to meet international targets by counting protection measures that are less restrictive; they can rush to meet quantitative targets, neglecting the quality of marine protection in

favour of spatial coverage. Having a common understanding of what an MPA does and does not include can also be helpful in determining what is missing from the current toolkit and what might be needed to fill gaps.

The extent to which the current toolkit for MPAs is adequate depends on many things: what we are wanting to protect, for what purpose, how and by whom they are established, by when they must be achieved, and where they are located. Many have argued convincingly that Aotearoa New Zealand’s current toolbox for spatially protecting the marine area falls short in a number of ways. For example:

- There is a lack of a legal mechanism to create marine reserves or other highly protected areas beyond the boundaries of the coastal marine area.¹⁶
- The purpose of establishing a marine reserve is very limited, focused on scientific research and not biological diversity or species conservation.
- Type 1 MPAs are limited to marine reserves, but these do not allow any take for cultural purposes and can be insensitive to the expectations of mana whenua.



Cape Rodney-Okakari Point marine reserve

- The locations of benthic protection areas, established under the Fisheries Act, are arguably not in the best locations to achieve ecosystem protections (given that they only protect against the impacts of trawling and dredging fishing methods, and most are too deep to trawl/dredge).¹⁷
- Many sensitive ecosystems remain largely unprotected, such as seamounts and reefs.

Perhaps most fundamentally, overall coverage of MPAs is limited, and protected areas that are in place are not representative or connected. At the seventh meeting of the Parties to the Convention on Biological Diversity in 2004, targets were set for “comprehensive, effectively managed, and ecologically representative national and regional systems of protected area”. This means that MPAs should cover a representative sample of the ecosystems and species present in a country’s oceans. In terms of international expectations, we are well short of that.

A spotlight on MPA coverage

Aotearoa New Zealand’s marine environment is vast, stretching from the subtropical waters off Rangitāhua/Kermadec Islands to the subantarctic waters surrounding Motu Ihupuku/Campbell Island. Yet only 0.4 percent of this is protected in no-take marine reserves.¹⁸ As a whole, 9.8 percent of the territorial sea is protected in no-take reserves, but zero percent of our vast EEZ has this level of protection.¹⁹

About 28 percent of the EEZ and territorial sea combined is protected under a “variety of other protective measures”.²⁰ Protections from fishing impacts on the benthic marine environment cover 27.4 percent of the area, and seamount protection from trawl impacts covers 2.6 percent. Marine mammal sanctuaries – spatial conservation measures to manage risks to marine mammals – cover 0.7 percent. Fishing management tools, classified domestically as meeting a protection standard for an MPA, require at minimum a prohibition on bottom trawling, seining and dredging. So although a total of over 30 percent of New Zealand’s ocean was under some form of protection, as of April 2018, most of these areas did not meet MPA policy protection standards.²¹

The distribution of marine protection is also uneven across Aotearoa New Zealand’s 14 coastal marine biogeographic regions, with 96.5 percent of marine reserve coverage located around offshore islands in the northern and southern extremes of the territorial sea (the Rangitāhua/Kermadec Islands and Subantarctic Islands).²² The remaining 3.5 percent of marine reserves and other “marine protection measures” in the mainland territorial sea are poorly spread across biogeographic regions. Consequently, our current coastal marine protection network does not protect a fully representative range of habitats, let alone in a connected way.²³

Some are of the view that single-species protections and bans on damaging fishing gear, as is possible under current tools, “will not lead to the long-term conservation of the whole ecosystem and therefore do not qualify as MPAs”.²⁴ It is hard to find marine zoning tools in regional coastal plans that achieve this, and the EEZ Act does not really engage in spatial management at all (yet).

However, it may be possible to make better use of the existing toolkit. Just because tools have not been used in the past does not necessarily mean we have exhausted their potential. It may be necessary to make some tweaks to the legal framework, but it is possible to argue that overhaul is not required.

There are some reasonably obvious deficiencies in the current toolkit when it comes to MPAs. However, existing tools could be used more effectively than they have been in the past.

9.2 MPAs under the RMA

The RMA (or future NBA) offers one potential pathway for creating MPAs. Indeed, creating MPAs through a regional coastal plan, as was achieved around Motiti Island, has been described as innovative.²⁵

A spotlight on Motiti Island and MPAs

After the oil spill disaster caused by the grounding of the MV Rena, local hapū found that the temporary exclusion zone (based on navigational safety under the Maritime Transport Act and a Bay of Plenty Regional Council bylaw) had contributed significantly to biodiversity recovery.²⁶ The Motiti Rohe Moana Trust sought protection of the area on a longer-term basis, but its application for a closure under the Fisheries Act was unsuccessful.²⁷

After several years of legal action, the Trust was successful in its appeal of the Bay of Plenty Regional Coastal Environment Plan.²⁸ The Court directed the Council to “implement new rules within its Regional Coastal Environment Plan to protect three reef systems near Motiti and complete scientific monitoring, in collaboration with tangata whenua and multiple agencies, to inform future integrated marine management solutions for the wider Motiti Natural Environment Management Area”.²⁹ The new rules prohibit all forms of fishing from several areas, creating a tool that was previously only the preserve of marine reserves and fisheries controls.

This *Motiti* decision signals a “new phase” in the relationship between councils and central government agencies in the marine space.³⁰ It is not inconceivable that regional coastal plans may organically become a more widely used mechanism for establishing MPAs in the future, now that their potential to do so has been highlighted. The question is whether

councils will take up that opportunity. To some extent this will depend on capacity issues, as well as political will. To increase take-up, councils could be supported by central government to identify and protect biodiverse areas of their marine environment in the future. Another question is how jurisprudence will evolve; as explored in Chapter 11, there is still a great deal of uncertainty about the extent to which a network of MPAs (or other habitat protections) could be achieved under the RMA.

However, the case of Motiti highlights another potential mechanism by which *central* government could drive the use of the RMA for spatial protections. Aotearoa New Zealand’s non-statutory MPA policy recognises that a revised NZCPS could provide, not only more specific policy guidance on managing the effects of sedimentation, discharging, and dumping *on* an MPA network, but also recognise “the types of values at the national, regional and local level that would merit some form of marine protection”.³¹ And, given the broad powers of Ministers to create policy and regulation under the RMA (which may be even broader under the NBA), it is not inconceivable that regional or even place-specific national direction could be developed for particular networks or even individual MPAs.

Case law has confirmed that a regional policy statement can contain “rule-like” policies and include specific lines on maps, and there is no reason to think a regionally specific NPS would be any different. While planning mechanisms and jurisprudence is underdeveloped compared to the RMA, the EEZ Act could conceptually be used in the same kind of way to establish spatial protections that restrict fishing, mining and other activities in vulnerable places like seamounts.

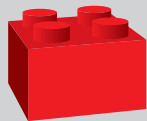
Establishing MPAs under these existing frameworks would have the benefit of maintaining a single planning process through which other “zones” (eg for ports and aquaculture) could be established alongside protected areas and be reflected in a single regional coastal plan. It could also be used to integrate consideration of land uses³² and catchments with the establishment and protection of MPAs (eg to ensure upstream activities do not harm biodiversity within protected areas). As broad, effects-based frameworks, these acts have the advantage of being able to apply to fishing, mining, pollution and other seabed disturbances.

However, the RMA and EEZ Act provide a relatively fragile legislative environment in which to create MPAs. For one, the purposes of the statutes are broad when compared to the kind of “conservation” focused purposes needed for area-based protections. Regulatory restrictions are not permanent, and can be undone through politically driven changes in national direction or changes to regional coastal plans. On land, it is

telling that conservation areas are established and managed by dedicated conservation legislation; we certainly do not rely on the RMA to create and manage national parks and reserves.³³

That said, the proposed NBA provides an opportunity to strengthen the legislative foundations for MPAs. For example, the Act could conceivably have a new part, with a dedicated protective purpose (about intrinsic value and preservation of biodiversity), for the establishment of protected areas in the coastal marine area. That would not be dissimilar to the “system within a system” for water conservation orders, which are not subject to the purpose of the RMA.³⁴

Alternatively, the NBA could include the concept of an MPA as one expression of an “environmental limit” necessary to defend minimum levels of marine biodiversity (see Chapter 8). Those limits are already proposed to have a separate, more protective, purpose than other regulatory restrictions under the Act. The same approach could be reflected in amendments to the EEZ Act, which could have a third purpose added to its existing ones.



The RMA (and NBA) as well as the EEZ Act provide opportunities for the more proactive deployment of MPAs in the future at both national and regional levels.



Te Matuku marine reserve

9.3 MPAs under the Fisheries Act

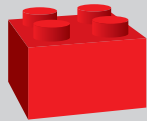
The existing Fisheries Act could also be used to proactively create more protected areas. That is possible already, but might be better supported if its purpose and principles were expanded. An amended purpose might, for example, see the location of benthic protected areas revisited, trawl corridors identified, an ongoing plan to spatially protect seamounts, and the establishment of recreational fishing parks (to the extent those could be regarded as MPAs). However, it would still lack the RMA/NBA's ability to control a wide range of activities (eg mining) and therefore represents a less coordinated approach.

That said, it might be possible to create protected areas by using existing Fisheries Act *tools* in novel ways through separate, bespoke legislation. The Kermadec islands is a good example, which could be replicated in other geographically specific legislation (which may, for example, come out of the South East Marine Protection Forum and implementation of the Seachange Tai Timu Tai Pari initiative in the Hauraki Gulf).³⁵ As described in Chapter 7, the Kermadec proposal involved setting the TAC to zero for an entire fisheries management area. This effectively removed the ability to exercise commercial fishing rights in the future, but did not formally extinguish the quota itself. That has all sorts of te Tiriti and natural justice issues associated with it (see Chapter 6 on existing rights and Chapter 7 on procedural justice). But for present purposes it begs a different question: could a future system use fisheries tools like the TAC to effectively create no-take MPAs? It may be possible if a TAC could be set for a more specific area *within* a QMA, or if a new, smaller scale QMA were to be created within a larger one. That would be more complicated than in the Kermadec situation, where the prospective boundaries of the sanctuary coincided with an entire existing QMA.

The use of the TAC in the service of an MPA raises other, more nuanced, possibilities. For example, should the law allow a lower (but above zero) commercial catch limit to be set for reasons broader than managing the fish stock itself (ie biodiversity protection)? Here, rights would not be extinguished, only reduced. Another possibility might be that regional councils under the RMA – if they were equipped to do so – could be empowered to deploy their own catch limits in the service of broader biodiversity outcomes. However, this would likely create tricky issues of overlap with the Fisheries Act catch limit setting functions.

The process of applying the TAC as a tool to create an MPA, in cases such as the Kermadec Islands, has arguably emerged because we lack a more comprehensive framework for establishing protected areas in the EEZ. It is

easier for bespoke legislation to piggyback on tools under other legislation, for which compensation would not be payable, rather than create a totally new regime. It raises the issue of whether it is appropriate for a tool developed for one purpose (to maximise the sustainable yield of fish) to be used for another (to create a protected area for broader, value-based reasons including intrinsic values and meeting international commitments). A better approach may be to create more modern MPA legislation directly.



The Fisheries Act could be used to deploy MPAs more systematically in the future, which might be supported by strengthening or clarifying its purpose and sustainability principles. As well as using spatial fisheries closures, the TAC itself could be adjusted to provide spatial biodiversity protection.

9.4 Dedicated MPA legislation

The Kermadec Ocean Sanctuary proposal provides an example of a bespoke, area-based statute for the creation of MPA, partly reflecting the inadequacies of the Marine Reserves Act. Similarly bespoke legislation has been floated for the Hauraki Gulf to implement more nuanced MPAs coming out of the Seachange Tai Timu Tai Pari spatial planning process, and to implement MPAs off the South East Coast of the South Island/te Wai Pounamu. Future reforms could focus on making the tools in the Marine Reserves Act more fit for purpose, rather than bypassing it in favour of bespoke legislation every time a new MPA needs to be created.



Whanganui A Hei (Cathedral Cove) marine reserve

A spotlight on marine reserves

The Marine Reserves Act 1971 emerged off the back of lobbying by the scientific community after a University of Auckland professor asked the government to establish a marine reserve adjacent to the Leigh campus and was told there was no legal mechanism to establish it.³⁶ The Act's purpose indicates this history, with the purpose and mechanisms for marine reserves reflecting scientific and research interests. The Act provides for "the setting up and management of areas of the sea and foreshore as marine reserves for the purpose of preserving them in their natural state as the habitat of marine life for scientific study."

The first marine reserve was established in 1975.³⁷ At the time, the legislation was pioneering, and the marine reserve was potentially a world first.³⁸ But that was close to 50 years ago, and the legislation is now outdated. The protection of biodiversity is not mentioned in the legislation, nor are cultural and recreational uses. As a result, it has "not been the regulatory tool of choice" for creating MPAs.³⁹ That is putting it politely. Even when it comes to creating new *marine reserves* – the tool at the heart of the Act – special legislation has often been preferred.⁴⁰

Under the Act, a marine reserve can only be established if the marine area contains underwater scenery, natural features or marine life of such distinctive quality, or so typical, or beautiful, or unique that its continued preservation is in the national interest. The decision-making criteria are limited to whether establishment is in the "best interests of scientific research" and "for the benefit of the public".⁴¹ This is clearly deficient as a normative foundation for MPAs. It protects small areas that are beautiful and healthy if they are considered to have scientific value, but it does nothing to stop the broader decline of biodiversity in the marine environment.

This framework does not reflect contemporary values or problems, including the desire to protect the representativeness of marine ecosystems around the country.⁴² There are no environmental criteria in the Act. Somewhat astonishingly, the protocol to guide decision-making between Fisheries New Zealand and the Department of Conservation states: "[w]hether or not the marine area that is the subject of an application is under threat or at risk of

destruction is not a consideration relevant to s 3 of the Act”.⁴³ The framework of the legislation prioritises existing rights and uses, as marine reserves cannot “interfere unduly” with a range of interests including commercial fishing and recreational uses. The tension between the purpose, culture, and values of fisheries and conservation bodies has contributed to stalled progress on marine reserves and generated pushback on marine protection generally.

The Marine Reserves Act could be amended to address the specific issues highlighted in the spotlight above. Alternatively, it could be fundamentally reimagined with a new name, purpose, and toolkit. Indeed, there have been attempts to do so. The latest was in 2012, when the National-led government undertook a review of MPA legislation. It decided to withdraw the stalled Marine Reserves Bill and introduce a new one which would align with the recently enacted MACA Act and the (then) proposed EEZ Act.⁴⁴ The government consulted on a proposed Marine Protected Areas Act in 2016, but a Bill was never introduced – presumably stalled by the same government’s Kermadec Islands controversy.

The consultation document indicated that the proposed Act would have four protection categories: marine reserves, species-specific sanctuaries, seabed reserves and recreational fishing parks.⁴⁵ Unlike an earlier proposal, the Act would apply only to the territorial sea.⁴⁶ It also introduced a new decision-making framework. Proposals would only be considered by the leading Minister if they contained adequate information about the environment, the benefits of protection, and the economic impacts on current and future uses.⁴⁷ From there, the Minister(s) would decide whether to proceed with a collaborative community and stakeholder or Board of Inquiry approach.⁴⁸ Both approaches were to require full public consultation and an independent economic assessment.⁴⁹

The proposed legislation also envisioned that other tools, such as customary or recreational fishing tools under the Fisheries Act, might form part of a proposal as a “suite of protection and management measures in an area”.⁵⁰ Regional coastal plans under the RMA would have to recognise MPAs and take them into account when determining consents.⁵¹ There would be a mechanism to review marine protected areas, which in exceptional circumstances could lead to them being revoked.⁵²

While such an approach could be resurrected in a future system, further changes could be made. The most obvious is that a new suite of MPAs could be made available in the EEZ, where no meaningful framework for

cross-sector spatial protections is available, let alone proactively used. The bar for provisionally accepting a proposal for some MPAs could be set lower (eg where environmental indicators showed decline), at which point the onus could be placed on anyone opposing the measure to demonstrate why it is *inappropriate*.⁵³

The legal “reach” of MPAs could also be extended by strictly requiring that activities operating beyond its boundaries not have an appreciable impact on the values being protected within it. That could, for example, create a strong legal obligation for councils to prevent activities on land or catchments (eg clear fell harvesting) that generate sedimentation impacts, in a similar way that the Department of Conservation can prohibit the flying of drones over national parks from private land.⁵⁴ That might lead to existing use rights on land being extinguished or the review of consent conditions. In fact, an MPA Act could even create *commercial* fishing protection zones, in which undue adverse effects of land-based activities on habitats of value to fisheries could be controlled.



The Marine Reserves Act could be reimagined in a future system as an MPA Act, which could go further than previous proposals (including by applying MPAs to the EEZ, broadening its purpose, and triggering land use change under the RMA).



Long Bay-Okura marine reserve

9.5 Design features of MPAs

Choices will need to be made as to exactly what activities are to be restricted in MPAs, and what things are to be protected. Most of the focus of debate tends to be on extractive activities (ie fishing and mining), and “no-take” MPAs. The IUCN also states that industrial activities and infrastructural developments are not compatible with MPAs and should be excluded. But the values to be protected may be broader than just those threatened by these things.

For example, the 2005 MPA Policy does not directly address protection of marine historic or cultural heritage, or protection for non-extractive use (eg diving) or values, tourism or recreational opportunities. Such issues, it was envisioned, would be considered “following the development of the Oceans Policy”.⁵⁵ That never eventuated.

Do we need bespoke MPAs for the active protection of marine heritage, wāhi tapu and culturally significant sites? What should we be protecting those things *from*? And will customary marine title areas already provide strong enough links to the RMA (ie through veto rights on coastal permits) to prevent inappropriate activities on such things in practice? Arguably not, if recreational fishing and gathering shellfish remain permitted activities and beyond the scope of the RMA. A wider range of MPAs may be necessary.

And do we require MPAs for green infrastructure like offshore wind farms or tidal generation, similar to the protection of submarine cables? Or, indeed, for ecological infrastructure provided by, for example, commercial seaweed or shellfish farming operations? These might be characterised as exclusion zones, but still contemplated by an MPA Act given their potential benefits for biodiversity.

A wide range of protected area types could be provided for. For example, legislation in California envisages marine reserves,⁵⁶ marine conservation areas,⁵⁷ marine parks⁵⁸ marine recreational management areas⁵⁹ and special closure areas⁶⁰ with each having a different focus and restrictions.⁶¹ In Canada, “marine refuges” have recently been provided for in federal fisheries legislation. These are long-term fisheries closures to protect sensitive ecosystems and fish populations.⁶²

The process by which MPAs are developed is also important to consider. Previously, EDS listed the pros and cons of government versus stakeholder-led MPA development, and we made a number of recommendations for MPA reform, many of which still have relevance

today.⁶³ On the one hand, a collaborative process is important in order to build consensus and move beyond adversarial positions on marine management. Where consensus cannot be reached an independent board of inquiry could evaluate competing interests against policy goals in order to make a recommendation to the ultimate decision-maker (eg the responsible Minister). Limiting a board of inquiry’s terms of reference strengthens collaborative processes and incentivises participants to achieve agreement. Such terms of reference should, however, be focused on achieving the biodiversity goals of MPAs so that the process does not simply become one of negotiation between the interests that happen to be present at the table (or who are selected to be there). The role of iwi/hapū would need to be carefully considered in any process (see below).

Alternatively, proposals could be considered by the Environment Court as an independent entity, which would make recommendations to the Minister based on legally rigorous assessment of criteria in the legislation. That approach could be similar to the current process for considering water conservation order applications, and could guard against the process being politicised.

Because all of this takes time, consideration could be given to conferring interim protection to sites identified as “potential” protected areas. Recent changes to Canada’s Oceans Act have allowed for this to happen via ministerial order, and for the footprint of current human activities in such areas to be frozen. Proposed MPAs have to be fully designated within five years (or else repealed).⁶⁴ This “two stage” process is based on a strengthened precautionary principle in the Act, in that a lack of scientific certainty is not good reason to delay or fail to designate an MPA.

It will be important to consider various design features of MPAs. Those include the things being protected and the process by which they are created and managed.



A more comprehensive set of MPAs could include spatial protections for heritage, wāhi tapu areas, recreational sites and green infrastructure. The process for creation could be made more collaborative and/or independent, with interim protection conferred.

9.6 MPAs and mana whenua

A new approach to MPAs needs to be cognisant of te Tiriti obligations, and the need to reconcile two core purposes of area-based protections that are usually talked about: protection of biodiversity and indigenous interests. These things are generally compatible, but much depends on specific design features.

A Western approach to spatial protections – strict separation of “conservation” areas from “exploitable” areas – has been one reason for the failure of MPAs. There can be tensions between highly protective MPAs (such as no-take reserves) and the exercise of customary rights, which is how Māori maintain connections with te moana.

Part of this comes down to the process by which MPAs have been created in the past. Involvement of Māori has been inconsistent at best. The Kermadecs controversy demonstrates that legally, albeit not politically, MPAs may be developed with arguably insufficient consultation with all relevant interests. That said, some MPAs have been created with strong support of mana whenua (eg the Whanganui-A-Hei (Cathedral Cove) Marine Reserve).

The government’s non-statutory MPA Policy was also developed on the heels of the Foreshore and Seabed Act 2004 (now repealed). Perhaps reflecting this, a principle of the MPA Policy was that planning should reflect “the need to *take into account* obligations that arise from Treaty of Waitangi commitments to tangata whenua that are included in marine management legislation and Treaty settlement legislation” – rather than *give effect to* (or “comply” with) them.⁶⁵ Tangata whenua were to be “involved early” and “effective participation” would be provided but they would have no right of veto over MPA proposals and no formal role in their management.⁶⁶

More to the point, none of this has statutory force. There is no legal process – and therefore no visible or predictable process – by which MPAs are created other than the deficient and outdated process for creating marine reserves. Ad hoc and quite different mechanisms have been used in the Hauraki Gulf, the South East Marine Protection Forum and Rangitāhua/Kermadec Islands.⁶⁷ Other ones might be used in the future, raising the prospect of the same kinds of legal battles that have defined the Rangitāhua experience.

While mana whenua have, to some extent, been marginalised in the MPA *development* and *design* process over the years, they may have

considerable powers to prevent their deployment in coming years. If customary marine title is established under the MACA Act, the title group may give or decline permission and this determines whether an application for a marine reserve can proceed.⁶⁸ However it remains that, when setting sustainability measures under the Fisheries Act, the Minister must only “have regard” to any planning document that may have been lodged by the marine title group. The upshot is that customary marine title allows marine reserves to be stopped as of right, but it does not allow fishing activity to be halted. This may uphold settlement rights in quota, but it does not necessarily reflect the broader interests of Māori in protecting customary marine title areas *from* the impacts of fishing.

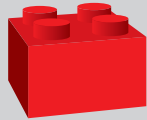
So what does that mean for the design of MPAs in a future system? Because many applications for customary marine title are yet to be decided, it is too early to say what implications may evolve in practice. Only three customary marine title applications have been heard at the time of writing,⁶⁹ although those awaiting recognition have the potential to cover large swathes of Aotearoa New Zealand’s coastal marine area.⁷⁰

On the one hand, this might facilitate iwi/hapū-created and managed MPAs if permission (ie veto) rights under the RMA are coordinated with efforts to establish local mātaihai reserves or temporary closures. To support that outcome, one option could be that customary marine title holders are given comparable influence over fisheries sustainability measures and planning as they have over plans and consents under the RMA. At its most extreme, title could even allow holders to require permission to engage in commercial fishing in their areas (including conditions relating to gear and methods). Some MPAs authorised by title holders might even be temporary (eg with a moratorium on activities), better reflecting the idea of a rāhui.

Alternatively, title holders could be given *less* influence (ie no veto right) over decisions to create MPAs that are less restrictive than marine reserves, as long as mana whenua are involved in the design of these more nuanced areas through a collaborative or co-development process, and have a hand in their management. Such areas could allow some recreational take, reflecting the fact that many Māori rely on recreational catch to provide food for the marae. The purpose of those areas might even be quite different from that of the Fisheries Act, and result in different restrictions being placed through (for example) bag limits, temporary closures (by rāhui) or gear requirements. The Seachange Tai Timu Tai Pari process in the Hauraki Gulf has suggested the creation of new “Ahu Moana” areas that could be developed to restrict activities without severing ancestral connections to the sea and its resources.⁷¹

Finally, we note that if the RMA were to be used as a mechanism for controlling the impacts of fishing (as highlighted in *Motiti*) there may be a “back door” way for the MACA Act to be used by customary marine title holders to do the same. For example, if a resource consent was required to undertake commercial fishing (eg in reef environments where fishing were a discretionary rather than a prohibited activity), then a title holder could exercise a permission right to refuse it. Management plans could also be used to influence the fishing-related provisions of a regional coastal plan, which in turn could be used to establish no-take protected areas. While indirect, this could be a way to progress more nuanced and culturally sensitive MPAs in the coastal marine area. However, that would not be possible in the EEZ or in parts of the coastal marine area which are not subject to customary marine title.

MPAs will need to be developed, designed and deployed in a way that is sensitive to the interests of mana whenua and obligations under te Tiriti o Waitangi.



The recognition of customary marine title might provide a mechanism by which title holders could themselves deploy MPAs, and that roundabout mechanism could be strengthened.

Raewyn Peart



Wainui, Gisborne

A spotlight on Australian indigenous protected areas

Currently, marine reserves established under the Marine Reserves Act are no-take zones which do not allow for customary fishing. While marine protection options that do allow for customary fishing can be facilitated through fisheries management tools, it is worth considering whether more can be done outside of fisheries management to facilitate marine protection that is sensitive to, or is dictated by, the cultural needs of iwi. This is especially so given government’s acknowledgement that mātaihai and taiāpure cannot be established for the purpose of biodiversity protection – this outcome is merely an ancillary effect of sustainable utilisation.⁷² An option for the future is to create more nuanced MPAs that weave indigenous connections together with the preservation of biodiversity.

Australia has advanced the concept of “indigenous protected areas” (IPAs). IPAs are “areas of land and sea managed by Indigenous groups as protected areas for biodiversity conservation through voluntary agreements with the Australian Government”.⁷³ As of 2019, there were nine IPAs with marine components, and 25 with saltwater elements such as beaches, estuaries and islands.⁷⁴ Seventeen projects are in the consultation stage, but when complete they will cover over 2.6 million hectares of sea country.⁷⁵

IPAs are non-legislated, policy-based protected areas.⁷⁶ To create an IPA, an indigenous community must declare this status and commit to managing their land to maintain biological diversity along IUCN guidelines.⁷⁷ The concept is based on indigenous understandings of territory rather than “ownership” per se (not conceptually too far from the idea of customary marine title in Aotearoa New Zealand).⁷⁸ Funding discussions and management planning follow the declaration of an IPA.⁷⁹ IPAs may be funded by government or nongovernmental entities such as environmental or philanthropic organisations.⁸⁰ The IPA is formally recognised by government after the completion of the management plan.⁸¹ The plan sets out “the Traditional Owners’ priorities for their Country, the values, goals, and objectives of the IPA, and identifies relevant partners, as well as their shared commitment to achieving those goals and objectives”.⁸²

Implementation for Sea Country IPAs typically occurs in partnership with government fisheries and other relevant agencies, research institutions, nongovernment conservation organisations, commercial and recreational fisheries representatives, tourism operators and others.⁸³ Most IPAs operate with an associated indigenous rangers programme to facilitate on-the-ground management by Indigenous people.⁸⁴ These management activities may include research and management of marine species, removal of abandoned fishing gear and other marine debris, constructing visitor infrastructure, supporting Traditional Owners to visit sea country, habitat mapping, cultural site maintenance, fisheries compliance patrols, biosecurity checks and other activities in collaboration with partner agencies.⁸⁵

IPAs in Australia represent a move away from a “wilderness” model of conservation to one that recognises the enduring cultural, social and economic links indigenous people have with the land and waters.⁸⁶ IPA management is also shifting away from a co-management or joint management approach and towards an indigenous-governed approach.⁸⁷ Furthermore, it signals the

growing acceptance of plural approaches – when an IPA overlaps with an existing MPA, “the IPA becomes a complementary, collaborative governance mechanism that does not threaten the [MPA’s] management”.⁸⁸

There are several lessons for MPA management in Aotearoa New Zealand. IPAs appear to be similar to iwi management plans under the RMA and potentially planning documents under the MACA Act.⁸⁹ The limitation of the latter is that it can be difficult for groups to establish marine title. It may be worth following Australia’s approach of moving away from the requirement of formal marine title (not relying on the MACA Act) to allowing a more autonomous definition according to tikanga that can be implemented through a new category of MPA.

IPAs also appear to be more integrative than iwi management plans in that they apply broadly to activities in an area, including fishing. Lastly, it is an example of how two separate but complementary systems – indigenous and state – can operate to achieve marine protection. This conceptualisation could be helpful for thinking about the differences between involving Māori in traditional government-led MPA processes versus such MPA processes operating alongside autonomous Māori-led MPA processes.

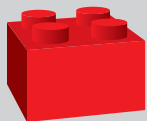


Bruny Island, Tasmania

9.10 Concluding comments

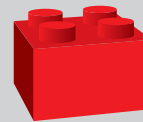
Overall, a more nuanced set of MPAs may be needed in a future system to encompass more things than they do at present. A key question is the extent to which strict no-take reserves are still necessary at the core of such networks to achieve biodiversity protection goals, or whether the mass deployment of more culturally sensitive spatial protections could do as good a job. In California, for example, legislation requires that no-take reserves are implemented within a broader network of MPAs.⁹⁰

Yet while there are a number of options when it comes to MPAs in a future system, some of which we have canvassed above, there is also an opportunity to fundamentally reimagine what an MPA is. Instead of being just one tool in the toolkit to protect biodiversity through a set of area-specific regulations, an ecocentric approach may treat such areas as “persons” in their own right, or at least as the domain or property of a person. Such persons could be given rights to defend (just as a human has rights when it comes to his or her bodily autonomy) rather than being protected by rules. We discussed this concept of legal personhood earlier (giving rights to nature), and note that particular areas could be given that status via MPA legislation.



MPAs could be made their own legal persons, reflecting a rights for nature approach.

MPAs are generally thought to be a fixed marine use, like coastal aquaculture or ports, as opposed to a mobile one, like shipping, tourism and recreation. However, there is an emerging idea of mobile and dynamic MPAs which may shift, for example, as the effects of climate change are realised.⁹¹ It is interesting to consider whether a marine reserve – which we are used to thinking of as protecting a particular place – could instead abandon that place in favour of another where greater overall biodiversity protections could be achieved. What are we wanting to protect? It may be a mix of place-based values in some situations and overall contribution to biodiversity values in others.⁹²



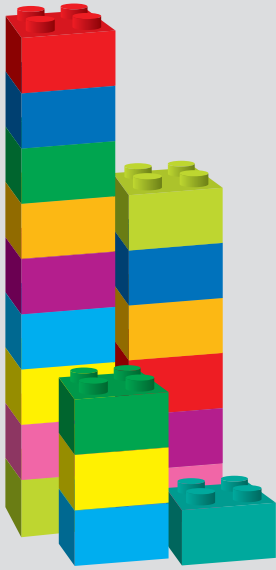
In the future, a process for shifting some MPAs from one place to another (based on the values being protected rather than the space) could be provided for, recognising that climate and environmental change may demand greater agility.

This highlights the importance of situating MPAs within a long-term and multi-sector plan for the marine space, and thinking about them both strategically and in an integrated way. That is not just the case with MPAs; indeed, as we explore in the following chapter, the toolkit as a whole may benefit from greater strategy and integration. The location and design of MPAs need to be thought about alongside many other activities and protections.

Raewyn Peart



Scuba divers, Cape Rodney-Okakari Point marine reserve



Summary of options for reform: Spatial protections in the toolkit

- The RMA (and NBA) as well as the EEZ Act provide opportunities for the more proactive deployment of MPAs in the future at both central and regional levels.
- The Fisheries Act could be used to deploy MPAs more systematically in the future, which might be supported by strengthening or clarifying its purpose and sustainability principles. As well as using spatial fisheries closures, the TAC itself could be adjusted to provide spatial biodiversity protection.
- The Marine Reserves Act could be reimagined in a future system as an MPA Act, which could go further than previous proposals (including by applying MPAs to the EEZ, broadening its purpose, and triggering land use change under the RMA).
- A more comprehensive set of MPAs could include spatial protections for heritage, wāhi tapu areas, recreational sites and green infrastructure. The process for creation could be made more collaborative and/or independent, with interim protection conferred.
- The recognition of customary marine title might provide a mechanism by which title holders could themselves deploy MPAs, and that roundabout mechanism could be strengthened.
- MPAs could be made their own legal persons, reflecting a rights for nature approach.
- In the future, a process for shifting some MPAs from one place to another (based on the values being protected rather than the space) could be provided for, recognising that climate and environmental change may demand greater agility.



Tawharanui marine reserve

Endnotes

- 1 Bill Ballantine "Fifty years on: lessons from marine reserves in New Zealand and principles for a worldwide network" (2014) 176 *Biological Conservation* 297 at 298.
- 2 Bill Ballantine "Fifty years on: lessons from marine reserves in New Zealand and principles for a worldwide network" (2014) 176 *Biological Conservation* 297 at 298.
- 3 Under the framework of the Convention on Biological Diversity, the term "marine and coastal protected area" is used to refer to: Any defined area within, or adjacent, to the marine environment, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by legislation or other effective means, including custom, with the effect that its marine and/or coastal biodiversity enjoys a higher level of protection than its surroundings. See *Report of the Ad Hoc Technical Expert Group on Marine and Coastal Protected Areas* (UN Doc UNEP/CBD/SBSTTA/8/INF/7) (13 February 2003) at [30].
- 4 Jon Day and others *Guidelines for applying the IUCN protected area management categories to marine protected areas* (IUCN, 2019) at 2. This is very similar to the MPA definition provided in the international guidance on marine spatial planning provided in the report: Intergovernmental Oceanographic Commission and Directorate General for Fisheries and Maritime Affairs *MSPglobal International Guide on Marine/Maritime Spatial Planning* (IOC-UNESCO, IOC/2021/MG/89, 2021).
- 5 Jon Day and others *Guidelines for applying the IUCN protected area management categories to marine protected areas* (IUCN, 2019) at 8.
- 6 Department of Conservation and Ministry of Fisheries *Marine Protected Areas Policy and Implementation Plan* (Department of Conservation and Ministry of Fisheries, Wellington, 2005) at [14], [MPA Policy 2005].
- 7 See Department of Conservation "Type 2 Marine Protected Areas" <www.doc.govt.nz>; Department of Conservation and Ministry of Fisheries *Marine Protected Areas: Classification, Protection Standard and Implementation Guidelines* (Department of Conservation and Ministry of Fisheries, Wellington, 2008).
- 8 MPA Policy 2005 at [83].
- 9 At [84].
- 10 At [83].
- 11 At [85].
- 12 See Department of Conservation "Type 2 Marine Protected Areas" <www.doc.govt.nz>
- 13 See MPA Policy 2005 at [26] - [61]. The IUCN protected area framework assigns protected areas to one of seven categories depending on the levels of protection from extractive activities that the area offers. While the IUCN categories are useful for comparing protected areas between countries, its protection standards are often applied inconsistently and minimum internationally-agreed standards of protection are lacking. While Aotearoa New Zealand is a member of the IUCN, and the Department of Conservation acts as the State party representative and has developed a national version of the IUCN Threatened Species Classification Scheme, the IUCN categories are not reflected in legal measures for national MPA policy.
- 14 Kate Mulcahy, Raewyn Peart and Abbie Bull *Safeguarding our Oceans: Strengthening marine protection in New Zealand* (EDS, Auckland, 2012) at 122.
- 15 Adapted from Ministry for the Environment Ministry for the Environment "Marine Areas with Legal Protection: Environment Report Card" (December 2008) <www.environment.govt.nz> <https://environment.govt.nz/assets/Publications/Files/Environmental-Report-Card-Marine-Areas-with-Legal-protection_0.pdf>; Kate Mulcahy, Raewyn Peart and Abbie Bull *Safeguarding our Oceans: Strengthening marine protection in New Zealand* (EDS, Auckland, 2012); and Office of the Prime Minister's Chief Science Advisor *The Future of Commercial Fishing in Aotearoa New Zealand* (February 2021) at 113.
- 16 Marine Reserves Act 1971, s 2: the Act only applies to the territorial and internal waters of Aotearoa New Zealand (not the EEZ).
- 17 Office of the Prime Minister's Chief Science Advisor *The future of commercial fishing in Aotearoa New Zealand* (February 2021) at 91-92.
- 18 Department of Conservation *New Zealand's latest National Report under the Convention on Biological Diversity: Reporting period 2014-2018* (Department of Conservation, Wellington, 2019) at 117. These no-take marine reserves meet the strictest definition of IUCN categories, see further below.
- 19 At 117.
- 20 At 117.
- 21 Alberto Rovellini and Megan Shaffer *Quantitative targets for marine protection: a review of the scientific basis and applications* (Department of Conservation, Project 4792, June 2020) at 42.
- 22 Department of Conservation *New Zealand's latest National Report under the Convention on Biological Diversity: Reporting period 2014-2018* (Department of Conservation, Wellington, 2019) at 117.
- 23 At 117.
- 24 At 8.
- 25 Office of the Prime Minister's Chief Science Advisor *The Future of Commercial Fishing in Aotearoa New Zealand* (February 2021) at 134.
- 26 At 130.
- 27 At 131.
- 28 At 131.
- 29 At 132.
- 30 At 132.
- 31 See MPA Policy 2005 at 6 and 9.
- 32 Land uses are regulated primarily through district plans, but regional councils have some jurisdiction over land use for environmental purposes and can include broader land use policies (some of which can resemble "rules") within regional policy statements.
- 33 We have a dedicated National Parks Act and Reserves Act.
- 34 Resource Management Act 1991, pt 12.
- 35 See Department of Conservation "Consultation on south-eastern South Island marine protected areas" <<https://www.doc.govt.nz/get-involved/have-your-say/all-consultations/2020-consultations/consultation-on-south-eastern-south-island-marine-protected-areas/>>
- 36 Bill Ballantine "Fifty years on: lessons from marine reserves in New Zealand and principles for a worldwide network" (2014) 176 *Biological Conservation* 297 at 298; and Kate Mulcahy, Raewyn Peart and Abbie Bull *Safeguarding our Oceans: Strengthening marine protection in New Zealand* (EDS, Auckland, 2012) at 92.
- 37 Bill Ballantine "Fifty years on: lessons from marine reserves in New Zealand and principles for a worldwide network" (2014) 176 *Biological Conservation* 297.
- 38 At 298.
- 39 Office of the Prime Minister's Chief Science Advisor *The Future of Commercial Fishing in Aotearoa New Zealand* (February 2021) at 114.
- 40 For example, in Kaikōura and Fiordland.
- 41 Marine Reserves Act 1971, s 5(9).
- 42 Kate Mulcahy, Raewyn Peart and Abbie Bull *Safeguarding our Oceans: Strengthening marine protection in New Zealand* (EDS, Auckland, 2012) at 98.
- 43 Hugh Logan and Warwick Tuck *Marine Reserves Protocol* (Department of Conservation and Ministry of Fisheries, August 2003)
- 44 Marine Reserves Bill 2012 (224-1) (select committee report).
- 45 Ministry for the Environment *A new Marine Protected Areas Act: Consultation Document* (ME 1224, January 2016)
- 46 At 16.
- 47 At 22.
- 48 At 22-23.
- 49 At 22-23.
- 50 At 24.
- 51 At 24.
- 52 At 25.
- 53 The tool could even provide for a level of compensation for lost "rights" (or a significant reduction in value), such as where a no-take MPA effectively extinguished or appropriated fishing quota across a significant portion of a QMA.
- 54 We tend not to have that same problem for the conservation estate on land, as most of this is higher up catchments. Most lowland parts of Aotearoa New Zealand have been used for agriculture, and this does not impact on eg national parks (exception of pests like possums).
- 55 See MPA Policy 2005 at [22]. Development of the Oceans Policy was discontinued.
- 56 Where it is unlawful to injure, damage, take, or possess any living geological, or cultural marine resource, except under a permit or specific authorisation from the managing agency for research, restoration, or monitoring purposes. The purpose is the protection of all marine resources.
- 57 Where it is it is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource for commercial or recreational purposes, or a combination of commercial

- and recreational purposes, that the designating entity or managing agency determines would compromise protection of the species of interest, natural community, habitat, or geological features.
- 58 Where it is unlawful to injure, damage, take, or possess any living or non-living marine resource for commercial exploitation purposes.
- 59 Where it is unlawful to perform any activity that, as determined by the designating entity or managing agency, would compromise the recreational values for which the area may be designated.
- 60 An area designated by the Fish and Game Commission that prohibits access or restricts boating activities in waters adjacent to seabird rookeries or marine mammal haul-out sites
- 61 See California Department of Fish and Wildlife "California Marine Protected Areas (MPAs)" <<https://wildlife.ca.gov/Conservation/Marine/MPAs>>
- 62 See Stephanie Hewson "Ocean Law Developments in Canada 2015-2019" (29 August 2019) West Coast Environmental Law <https://www.wcel.org/sites/default/files/publications/ocean_law_roundup_final5.pdf>
- 63 Kate Mulcahy, Raewyn Peart and Abbie Bull *Safeguarding our Oceans: Strengthening marine protection in New Zealand* (EDS, Auckland, 2012) at 125 – 130.
- 64 See Department of Fisheries, Oceans, and the Canadian Coast Guard "Changes to the Oceans Act" (1 August 2019) Government of Canada <<https://www.dfo-mpo.gc.ca/oceans/act-loi/index-eng.html>>
- 65 MPA Policy 2005 at [86]-[87].
- 66 MPA Policy 2005 at [116].
- 67 See Department of Conservation "Consultation on south-eastern South Island marine protected areas" <<https://www.doc.govt.nz>>; and Ministry for the Environment "Kermadec Ocean Sanctuary Bill" (4 April 2021) <www.environment.govt.nz>
- 68 Marine and Coastal Area (Takutai Moana) Act 2011, s 71.
- 69 Chapman Tripp "Tone set for whānau customary marine title claims" (13 October 2021) <<https://chapmantripp.com/trends-insights/toner-set-for-whanau-customary-marine-title-claims/>>
- 70 Under the MACA Act, applications for a High Court order for recognition of protected customary rights and customary marine title had to be made by 3 April 2017. There are 205 active marine and coastal recognition applications spanning an expansive cumulative area. See Courts of New Zealand "Marine and Coastal Area (Takutai Moana) Act 2011 applications for recognition orders" <<https://www.courtsfnz.govt.nz/the-courts/high-court/high-court-lists/marine-and-coastal-area-takutai-moana-act-2011-applications-for-recognition-orders/>>
- 71 Seachange Stakeholder Working Group *Sea Change Tai Timu Tai Pari Hauraki Gulf Marine Spatial Plan* (Hauraki Gulf Forum in partnership with others, April 2017) at 4.
- 72 MPA Policy 2005 at [50].
- 73 Department of Agriculture, Water and the Environment "Indigenous Protected Areas" (19 October 2021) <<https://www.awe.gov.au/agriculture-land/land/indigenous-protected-areas>>
- 74 Phil Rist and others "Indigenous protected areas in Sea Country: Indigenous-driven collaborative marine protected areas in Australia" (2019) 29(S2) Aquatic Conserv: Mar Freshw Ecosyst 138 at 141-142.
- 75 Department of Agriculture, Water and the Environment "Indigenous Protected Areas" (19 October 2021) <<https://www.awe.gov.au/agriculture-land/land/indigenous-protected-areas>>
- 76 Phil Rist and others "Indigenous protected areas in Sea Country: Indigenous-driven collaborative marine protected areas in Australia" (2019) 29(S2) Aquatic Conserv: Mar Freshw Ecosyst 138 at 138.
- 77 Lee Godden and Stuart Cowell "Conservation planning and Indigenous governance in Australia's Indigenous Protected Areas" (2016) 24(5) Restoration Ecology 692 at 695.
- 78 Phil Rist and others "Indigenous protected areas in Sea Country: Indigenous-driven collaborative marine protected areas in Australia" (2019) 29(S2) Aquatic Conserv: Mar Freshw Ecosyst 138 at 147.
- 79 Lee Godden and Stuart Cowell "Conservation planning and Indigenous governance in Australia's Indigenous Protected Areas" (2016) 24(5) Restoration Ecology 692 at 695.
- 80 Phil Rist and others "Indigenous protected areas in Sea Country: Indigenous-driven collaborative marine protected areas in Australia" (2019) 29(S2) Aquatic Conserv: Mar Freshw Ecosyst 138 at 142.
- 81 At 142.
- 82 At 142.
- 83 At 142.
- 84 National Indigenous Australians Agency "Indigenous Protected Areas (IPAs)" <<https://www.niaa.gov.au/indigenous-affairs/environment/indigenous-protected-areas-ipas>>.
- 85 Phil Rist and others "Indigenous protected areas in Sea Country: Indigenous-driven collaborative marine protected areas in Australia" (2019) 29(S2) Aquatic Conserv: Mar Freshw Ecosyst 138 at 145.
- 86 Lee Godden and Stuart Cowell "Conservation planning and Indigenous governance in Australia's Indigenous Protected Areas" (2016) 24(5) Restoration Ecology 692 at 692.
- 87 At 693.
- 88 Phil Rist and others "Indigenous protected areas in Sea Country: Indigenous-driven collaborative marine protected areas in Australia" (2019) 29(S2) Aquatic Conserv: Mar Freshw Ecosyst 138 at 143.
- 89 Marine and Coastal Area (Takutai Moana) Act 2011, s 85.
- 90 Review adapted from Kate Mulcahy, Raewyn Peart and Abbie Bull *Safeguarding our Oceans: Strengthening marine protection in New Zealand* (EDS, Auckland, 2012) at 182.
- 91 See Intergovernmental Oceanographic Commission and Directorate General for Fisheries and Maritime Affairs *MSPglobal International Guide on Marine/Maritime Spatial Planning* (IOC-UNESCO, IOC/2021/MG/89, 2021).
- 92 Conceptually this is not so different from the idea of tenure review on land, where some pastoral lease land was put into private ownership and (in theory) land with higher conservation value shifts into the public conservation estate.

10 Strategic and integrative tools



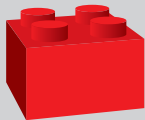
Seachange Tai Timu Tai Pari meeting, Rotoroa Island

10.1 Introduction

In Chapters 8 and 9 we looked at various tools that could be used differently in a future system and new ones that could be added. But a future system will need to be concerned not just with making the right tools available, but also with how (and whether) they are actually deployed. Two related questions arise here, which we explore in this chapter. First, how might we make the toolkit more *strategic*, so it is focused on driving change for the future rather than just managing the present? And, secondly, how might we ensure that multiple tools are used in an *integrated* or *coordinated* way to ensure they work well together?

10.2 Injecting strategy into the system

There are a number of ways in which the existing toolkit might be made more strategic or future focused, reflecting a new system's potential role of pursuing positive outcomes. As described in Chapter 7, the purpose of the legislation under which tools are deployed matters. For example, the intention under the proposed NBA is for its purpose to be much more focused on achieving positive outcomes and not just mitigating adverse effects, reflected in a long list of outcomes that authorities are directed to promote.¹ If these are expressly tied to the tools required to achieve them (eg green taxes, biobanking, public funding, subsidies, behavioural incentives and so forth), and not just a list of aspirations, then that could change the entire orientation of the legislation from passive management to pursuit of change. Indeed, it would be possible for quite specific objectives concerning the marine environment (eg MPA coverage) to be codified in the purpose of primary legislation (see Chapter 7). These could be complemented by specific duties placed on public authorities, more closely resembling the objective-driven tools under the Climate Change Response Act.



A future system could be made more strategic, by recasting the purposes and principles of legislation to ones that drive towards a different future, rather than maintaining or protecting things or seeking static outcomes (eg wellbeing or sustainability).

New tools could also make the system more strategic. For instance, accountability mechanisms could be deployed to encourage or require legislated outcomes to be achieved. The progress of authorities towards attaining marine objectives could, for example, be subject to a scorecard issued by an independent authority like an Oceans Commission (see

Chapter 12), to which authorities like central or local government would be required to respond.²

The use of statutory “targets” is another option. Instead of statutes themselves setting specific objectives, they can provide a framework under which mandatory targets must be set, measured and pursued by public authorities. Admittedly, some formal targets already exist in the current system. However, they are for the most part “static” ones. For example, maintaining a biomass of fish likely to achieve MSY seeks to maintain a relatively stable status quo. Where they *are* more oriented at change, targets have been largely left to political, rather than legal, accountability mechanisms. For example, the latest generation of national direction under the RMA (eg the NPS for Freshwater Management and proposed NPS for Indigenous Biodiversity) contain measurable targets for improvement, but these could always be undone by Ministers (with no legal consequence). Tellingly for the marine environment, the NZCPS is an older generation instrument that does not seek specific change, and its language is largely that of protection and avoiding effects. It could have a facelift to be more future focused like the NPS for Freshwater Management.

The system could also deploy the concept of targets in a much more structured and systemic way. Indeed, mandatory targets formed a core part of the Randerson Panel's recommendations for a new NBA (although they seem to have disappeared from the exposure draft subsequently produced by the government).³



Koheru, Mokohinau Islands

Tanya Peart

A spotlight on targets under the RMA and NBA

The Randerson Panel has suggested that the NBA contain mandatory targets for a number of things, including the restoration of ecosystems and “viable populations of indigenous species”, within the coastal marine environment and elsewhere. Such targets could be built upon further, as a tool to pursue quite specific marine objectives through the NBA, something which the RMA has not been used for in the past. That could include (for example) a percentage target for MPA coverage, population targets for threatened species,⁴ or even catch limits to achieve “viable” populations for “indigenous” fish above MSY (although much would depend on how the interface with the Fisheries Act was phrased and what legal influence targets had). Mandatory targets could be used to directly implement some of the specific future focused marine objectives of *Te mana o te taiao – the Aotearoa New Zealand biodiversity strategy 2020*.⁵ They could be timebound, and there could be an accountability framework around how they are set (eg review by an independent commission or standing board of inquiry) and what happens if they are not met (eg an automatic review or even transfer of some powers).

It may be particularly important for environmental limits (see Chapter 8) to be treated as binding targets if a limit has already been infringed. This transforms the nature of what a limit is – from a strict regulatory standard or prohibition (to prevent things getting worse) to a set of proactive tools (eg regulation, funding, active management and incentives) that will return an indicator to a safe space within a certain timeframe. That requires a plan of action. Restoring degraded habitats (eg kina barrens) and threatened species populations can be thought of in this way, but so too can collapsed fish stocks.

Instead of consulting on multiple options for rebuilding stocks, a future system could have a more structured, directive and precautionary approach to reopening a closed fishery involving pre-set targets. As mentioned in Chapter 4, the government has proposed to introduce features to the Fisheries Act allowing automatic changes to TACs and TACCs. This could be accompanied by strong independent assessments to identify where trigger points for more precautionary targets are set.

Targets could also apply to the rollout of various tools, not just the achievement of biophysical outcomes. For example, targets could be set for the deployment of marine spatial plans (discussed later in this chapter), for the transfer of powers to mana whenua (eg under section 33 of the RMA), or for stepping-stones towards the deployment of a network of MPAs. The latter could reflect international approaches to measuring progress as set out in *The MPA Guide* (2021), which establishes a process to systematically document the global state of MPAs according to their stage of establishment and level of protection.⁶ One problem with marine reserves is that they have simply not been deployed in a way or to an extent that would achieve systemic biodiversity benefits across te moana. Instead, they are a tool that sits waiting to be used when there is sufficient will to do so. In contrast, Canada's Oceans Act 1996 provides that:⁷

the Minister shall lead and coordinate the development and implementation of a national network of marine protected areas on behalf of the Government of Canada.

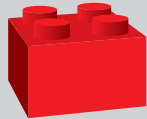
In performing his or her duties and functions ... the Minister shall ensure that:

- (a) clearly identified objectives are set with regard to each marine protected area; and
- (b) the network of marine protected areas covers diverse habitat types, biogeographic regions and environmental conditions.

Statutory targets could even be made mandatory across all statutes that manage things impacting te moana. They could be inserted into the Waste Minimisation Act (stepping-stones towards phasing out all single use plastics that impact the marine environment), the Fisheries Act (targets for improvements to fishing gear or the rollout of cameras on boats), the Maritime Transport Act (targets for decarbonising shipping) and the Wildlife Act (targets for rebuilding indigenous species populations and the rollout of tools to achieve them). In Canada, for instance, the federal government established a timeline for listing marine species under the Species at Risk Act 2002 (for which orders are made to protect critical habitat).⁸ The Minister must do so within 36 months of being given a species status assessment conducted by the Committee on the Status of Endangered Wildlife in Canada. The idea is to achieve greater accountability for doing something that is now seen to be beyond the realm of just politics.

The extent to which targets should be *enforceable*, with legal rather than just political consequences flowing from a failure to meet them, is debatable.

A failure to meet targets by some institutions could conceivably result in some kind of penalty or action, such as a transfer of powers from regional councils to the EPA if biodiversity targets were not met, or a transfer of wastewater services from councils to an independent entity if infrastructure failures were not remedied in a timely fashion. An alternative would be for a mandatory review or audit of policy or regulations to be triggered.



Mandatory targets could be used more systemically across a future system to drive positive change. Accountability mechanisms could be established around them to measure progress. Binding targets could cover many things, but may be particularly useful in returning to a safe ecological space if environmental limits have already been infringed.

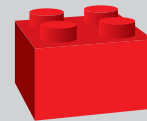
Existing tools could also be made more strategic by planning ahead for how they might change over time. They would be more agile and responsive. Change might be designed to happen as certain trigger points are reached. Spatial tools (eg MPAs and AMAs) might, for example, move to more appropriate pre-planned locations based on changing environmental impacts or climate change (and this could, for example, address issues that have been faced with inshore aquaculture operations in the Marlborough Sounds – see Chapter 3).⁹

It could also apply to the use of other kinds of tools. For example, instead of responding to a problem by instigating a lengthy regional plan change process or review, a different “version” of the plan could be pre-prepared, waiting in the wings. If a pre-defined trigger point is reached (whether it be water quality, species mortality, or some proxy for ecosystem health) the planning environment could switch over automatically to one that is more protective and oriented towards restoration. Everyone would know what the trigger point was and what would happen when it was reached.¹⁰ Conversely, when indicators improved, a framework could automatically become a more enabling one. Such temporal layers of planning could prevent the delays that come about from what is currently a highly reactive system that is slow to respond to environmental threats.

Triggers could also require immediate and corrective action under conservation legislation. At present, when a species is allocated to a higher threat category upon review under the (non-statutory) New Zealand Threat Classification System (administered by the Department of Conservation), there is no statutory requirement to take action (eg the development of

a population recovery plan). Where national environmental reporting datasets identify an emerging or growing risk to the environment, there is no statutory compulsion for regulatory agencies to respond or even indicate their intended response. A future system could have points at which thresholds (eg a change to threatened status of marine mammals or seabirds) automatically triggers a graduated set of corrective actions (eg the release of funding or regulatory restrictions). It could be an “alert level system” for the marine environment.

This is not a radical proposition. Pre-planning has, for example, been embraced in the urban context, where certainty around the rules that will apply to the future release of land allows developers to hit the ground running when rezoning occurs. Some have even suggested that new planning rules could enter into force automatically if objectively measured indicators were triggered (eg a price differential between urban and rural land).

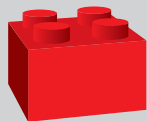


A future system could establish a more comprehensive range of trigger points that result in automatic or immediate management measures being taken. Here, the system would be more proactive in preparing for the future, by providing for greater agility when things change.

A future focused system also needs to be constantly scanning ahead to identify new challenges and opportunities that will require a response. Arguably the current system does not do this well. For example, there is a high degree of risk for an applicant wishing to undertake novel activities that the law is ill-equipped to regulate, such as deep sea mining (where there is next to no policy guidance under the EEZ Act), offshore fish farming (which lacks a meaningful policy framework even in the coastal marine area) or marine carbon capture and storage (where there are deeper questions about which legal frameworks even apply). As technology advances, the system tends to lag behind and react to innovations rather than pre-empt them. It means we may lose benefits that come from undertaking such activities (if they are declined consent) and incur unnecessary costs in determining whether proposals can or cannot proceed.

To address this, a “futures scanning” role could be given to an independent Oceans Commission (see Chapter 12) or added to the statutory functions of relevant government departments. In short, there needs to be stronger anticipatory governance – “a real, nationally-focused effort at looking ahead”.¹¹ This could resemble the Welsh approach, where the government is obliged to release a Future Trends report within one year of a general

election.¹² An exercise in looking ahead could be closely linked to monitoring and reporting, not just for environmental indicators but also identify how economic and social factors are changing in the marine space, and how past trends might play out in the future.¹³



Monitoring and reporting in a future system could be linked to obligations to conduct futures scanning exercises, to ensure that problems, opportunities and changes are pre-empted rather than leaving gaps in policy and regulatory frameworks to develop.

10.3 Towards a more integrated toolkit

If tools are to be used in a strategic way to drive change, then they need to be well coordinated with each other. That is particularly the case if they are fragmented across different statutory frameworks or deployed by different institutions, as is the case now (and can be seen vividly in the case of the Hauraki Gulf). It is not enough to have a strategy for marine reserves if there is a separate and conflicting aquaculture or mining strategy; there is little point preventing fishing if a stock is going to collapse anyway due to land-based pressures like sediment; and even the best regulation in the world may fail to protect threatened species from extinction if there is no funding for people on the ground to restore habitats, eradicate pests, or enforce restrictions. This encourages us to think about a “toolkit” rather than just individual “tools”. An integrated toolkit could form the “glue” that holds the building blocks of the system together.

There are many potential options for how tools could be better integrated. One mechanism could be institutional. Here, a single institution could be charged with wielding multiple tools in the service of a clear and directive mandate. For example, one might assume that, if a more comprehensive suite of different MPAs was available to it, the Department of Conservation would be better placed to align these with other measures (eg coastal reserves, offshore islands, population management plans and funding for restoration). And if capacity and funding issues were addressed, regional councils might be able to integrate MPAs and fishing controls (and catchment activities) to achieve biodiversity goals through regional policy statements and plans. That said, putting all one’s management eggs in the same institutional basket can have risks, especially if the responsible entity is defunded and has to make hard choices, or its attention is diverted elsewhere. For instance, most regional councils put relatively little resource into marine management, and have, for the most part, not used habitat protection powers available to them.¹⁴

A spotlight on United States legislation

The United States Magnuson-Stevens Fishery Conservation and Management Act (1976)¹⁵ seeks to address impacts on fisheries by providing a formal linkage between fisheries management and other activities. Where another federal agency seeks to authorise, fund or carry out an action that might adversely impact on an essential fish habitat, it must consult with the National Marine Fisheries Service (the federal fisheries management agency). The agency is then required to provide formal recommendations, including on measures to avoid, minimise or offset the impact of the proposed activities. It is also proactive in restoring essential fish habitats.

This cross-cutting mechanism could be replicated in Aotearoa New Zealand, in that Fisheries New Zealand could be required to engage deeply in land use and coastal planning under the NBA. Indeed, the avalanche of plan reviews that will be necessary in the wake of the RMA being replaced by a new act provides an opportunity to do so. We note that the pendulum may already be swinging back towards more regional level engagement,¹⁶ in that Fisheries New Zealand has recently established a small coastal planning team to work with regional councils. That could be a good start towards a more formal or structured role in coastal planning.



Tools could be better coordinated in a future system by extending the responsibilities of institutions. If one institution has responsibilities for deploying (or engaging with) multiple tools, then they may be used in a more integrated way.

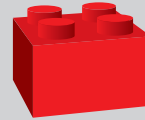
Another way forward could be stronger legislative cross-referencing. This could be used to make boundaries between statutes clearer; for example, the EEZ Act and Maritime Transport Act specifically explain how and why each statute deals with particular elements of marine pollution. The same could be done to clarify the respective jurisdictions of central government and regional councils for managing marine biodiversity under the RMA and Fisheries Act. At present, those boundaries remain uncertain (see Chapter 11).

Furthermore, cross-references could be made between MPA legislation and the Fisheries Act, specifying principles for when a reduction in value in fishing rights (quota) through protected areas is justified or warrants compensation. At the moment, such questions are left to political discretion. Cross-references could also be made between the Fisheries Act and the MACA Act, linking concepts like *taiāpure* and *mātaītai* to the exercise of protected customary rights and customary marine title. A clearer legal relationship could also be established between emissions reduction plans under the Climate Change Response Act and MPA legislation as well as sectoral acts for fishing and mining. That could require tools under the latter legislation to give effect to the former, addressing big picture issues like the emissions implications of bottom trawling, the protection of benthic habitats as carbon sinks, and the long-term impacts of oil and gas exploration. Better cross-referencing could also see the timing of different instruments aligned (eg the development and review of spatially focused fisheries plans¹⁷ at the same time as the marine and catchment components of regional plans, relevant parts of an EEZ policy statement, the development of *iwi* management plans, and processes for the establishment of MPAs).

Going even further, tools created under one framework could be used to connect to decision-making under others. For example, the relevant parts of the NZCPS could be deemed to be an EEZ policy statement, or (if expanded in scope) be required to be given effect to through fisheries plans or decisions on sustainability measures under the Fisheries Act. The NZCPS could even outline a national strategy for the deployment of MPAs, to be implemented through other legislation (eg an MPA Act). This kind of approach has been experimented with on land (albeit not without problems), where tools created under RMA national direction (future development strategies under the NPS on Urban Development) are intended to influence infrastructure funding decisions under others (eg the Local Government Act).¹⁸

Greater normative alignment could also potentially be achieved either by amending (or creating) purpose and principles clauses for legislation

(eg to insert common principles like ecosystem-based management and environmental limits), or by creating guidance as to how they are intended to be used in a synergistic way. The purpose of something like the Fisheries Act might even be revised to bring it in line with the sustainable management purpose of the RMA or the new purpose of *te oranga o te taiao* in the NBA. That way, tools might not pull in different directions. This could be reinforced by clarifying the mandate of the institutions responsible for administering or making decisions under various statutes. The Prime Minister's Chief Science Advisor has recently recommended, for example, that a future system "define the relationships between the different legislative requirements and strategic visions across Ministries, Departments and Agencies to provide clarity to stakeholders".¹⁹



There are a number of ways that connections could be improved between legislative frameworks, such as through cross-referencing, alignment of processes and the insertion of common principles.

10.4 The use of statutory strategies

The above measures may be useful to knit the system's tools together spatially, temporally and normatively. But that approach still relies on stitching different pieces together, one by one, rather than on creating a more holistic envelope within which they can be placed. What we are really lacking in the current system are broader strategies through which the hundreds of available tools can be deployed in the service of a bigger vision. One can compare the current system to a builder who has access to a lot of equipment and materials yet lacks a blueprint for what she or he is constructing.

The lines along which the system "strategises" can therefore be significant. In other words, it is not clear which "topics" should have strategies and how focused or broad they should be. Various strategies have been produced over the years. Some, such as *Te mana o te taiao – the Aotearoa New Zealand biodiversity strategy 2020*, focus on broad domains with their scope driven by international legal obligations.²⁰ Others, such as the *Strategy for Managing the Environmental Effects of Fishing*, have been focused on a single sector and exist within the parameters of a single piece of legislation (the Fisheries Act). Some new and more focused strategies have also been recommended, such as an environmental research strategy.²¹ An MPA strategy, which seeks to coordinate and deploy multiple spatial protection tools, has a particularly long and chequered history.



Recreational fishing on mussel farm, Coromandel

A spotlight on the strategic use of MPAs

In 2000, following the ratification of the Convention on Biological Diversity, the government released the *Biodiversity Strategy* (2000).²² Its overall aim regarding MPAs was to “protect a full range of natural marine habitats and ecosystems to effectively conserve marine biodiversity, using a range of appropriate mechanisms, including legal protection”.²³ It stressed the need for a representative network of MPAs, committed to the internationally set target of 10 percent of marine space being protected by 2010, and committed to reviewing the Marine Reserves Act.²⁴ This led to consultation on a new Marine Reserves Bill, which was introduced into Parliament in 2002, but which stalled on the back of the foreshore and seabed controversy. The Bill set out a more detailed regime for the establishment, management and enforcement of marine reserves. However, it markedly lacked consideration of Māori interests. There was no provision for tangata whenua input and customary fishing activities were to be prohibited in marine reserves in all cases.²⁵ In addition, the Bill could not really be described as strategic, as it did not provide for a plan to roll out marine reserves in a coherent network.

Although progress with the Bill was stymied, the Biodiversity Strategy prompted the development of the *Marine Protected Areas Policy and Implementation Plan* in 2005 (MPA Policy).²⁶ This reiterated the goal of having 10 percent of Aotearoa New Zealand’s marine environment under “some form of protection” by 2010.²⁷ It noted the protections would contribute to maintaining genetic diversity to protect the health of the wider marine environment (providing for a wider purpose than that contained in the Marine Reserves Act).²⁸ The MPA Policy sought to coordinate the range of existing management tools by setting out a planning process whereby an “inventory” would be taken to determine where current protections were lacking. Based on the inventory, planning for offshore MPAs was to be undertaken on a national scale, and for nearshore MPAs on a regional level. MPA planning processes would “be underpinned by a commitment to minimise the adverse impacts of new MPAs on existing users of the marine environment and Treaty settlement obligations”.²⁹ Guidelines released in 2008 sought to advance the MPA Policy by establishing an implementation framework. This proposed establishing regional forums to provide reports on their respective areas, but this approach stalled after only two fora were established.³⁰

Te mana o te taiao – the Aotearoa New Zealand biodiversity strategy 2020 (the current non-statutory biodiversity strategy) has three sets of goals for MPAs. The first is that by 2025 “a protection standard for coastal and marine ecosystems will be established with implementation underway”. The second is that by 2030 “significant progress is made in establishing an effective network of marine protected areas and other protection tools”; and the third is that by 2035 (on the way to 2050 goals) “an effective network of marine protected areas and other tools, including marine and coastal ecosystems of high biodiversity value is established and is meeting the agreed protection standard”.³¹ How that is to be achieved remains unclear, and a more recent discussion paper prepared on MPA reform has yet to be publicly released.

The picture above is one in which there is little legal accountability for failing to progress MPAs at all, let alone in a coordinated way. What legal effect should be given to cross-cutting strategies (such as *Te mana o te taiao*) is therefore an important question for system design.

Very few strategies in the existing oceans management system have a statutory basis or legal influence. The link between such strategies, and the regulatory and funding tools needed to realise them, are also generally weak (with the possible exceptions of climate change and urban development).³² Strategies lack true integrative power because they do not legally influence implementation in much more detailed and contested areas of the law (including where strong rights exist, where legislative change is required or where regulations need to be altered).



Long Bay-Okura marine reserve

Raewyn Peart

This begs the question of whether such things need to be formalised and have clear relationships with the multiple tools needed to give them teeth. Indeed, there is some movement towards this kind of thinking in proposals for regional spatial strategies under a Strategic Planning Act. It remains unclear what legal weight (the extent to which they will be “binding”) these will have when it comes to regulatory and funding decision-making under the NBA and other acts. But there is a clear intention for them to have *some* legal import,³³ which recognises that tools are not just passive things to be used when the political will exists.

A similar approach could be adopted for fishing, where a strategy to manage environmental effects could, like the NZCPS, be made mandatory. It could be required to outline not just general objectives and policies concerning the environmental impacts of fishing, but also an *implementation* plan for how they will be addressed on the ground. In spirit, this might not look too different to the NPS for Freshwater Management, which has directive and legally binding provisions around implementation.

Another option would be to formalise a cross-cutting MPA strategy, linking it to statutory targets for deployment that are legally binding (or at least influential) in the same conceptual way that emissions reduction targets and budgets are binding under the Climate Change Response Act. Such a strategy could outline how MPAs are to be deployed under various acts (eg RMA/NBA, EEZ Act, Marine Reserves Act, Fisheries Act) and even include a programme for further legislative reforms (eg a new MPA Act). In this regard, Californian legislation provides an interesting example.



Raewyn Peart

Pateke, Aotearoa

A spotlight on California's Marine Life Protection Act³⁴

California's approach to MPAs is an example of a “successful stakeholder-driven planning process which resulted in a network of marine protected areas spanning a large geographic area, designed in accordance with strong science, and managed as part of a state-wide system”.³⁵ It utilised a public-private partnership which brought together stakeholders, scientists and policy-makers.³⁶ The implementation of the legislation stalled twice before receiving significant funding and resourcing from this partnership.³⁷ Prior to the initiative, California's marine protection was in a similar state to Aotearoa New Zealand's: MPAs were established on a piecemeal basis, they had various levels of efficacy, and there was no coherent plan or purpose for their establishment and management.³⁸

California's Marine Life Protection Act 1999 establishes a process for the redesign of an MPA network and provides a set of goals to guide this. These include:³⁹

- the conservation of biological diversity and the health of marine ecosystems;
- recovery of wildlife populations;
- improvements to recreational and educational opportunities consistent with biodiversity conservation;
- protection of representative and unique habitats for their intrinsic value;
- ensuring that MPAs have defined objectives;
- effective management and enforcement;
- a design based on sound science; and
- ensuring that MPAs are managed, to the extent possible, as a network.

The network may include areas with various levels of protection, with some areas allowing specified forms of commercial or recreational fishing.⁴⁰ However, it must also contain no-take reserves.⁴¹

A “master plan”, prepared by the Department of Fish and Game, was designed to guide implementation. As part of the public-private partnership, a Blue Ribbon Task Force was established to lead the development of MPA proposals.⁴² This Task Force included members “known for their integrity, intellect and experience in public policy and concern for common good”.⁴³ Development of the plan was assisted by a science advisory team and a regional stakeholder group. Stakeholder groups were responsible for developing alternative MPA proposals in each region. A science advisory sub-team worked directly with stakeholders and the Department to ensure proposals were scientifically sound, by advising stakeholders and evaluating their MPA proposals against science-based guidelines.⁴⁴

The plan was required to incorporate the best readily available scientific information, with the Department of Fish and Game obtaining the advice of specific parties, such as fisheries representatives, marine conservationists, marine scientists and other interested persons.⁴⁵ The Department was also required to confer with a host of government bodies and marine conservation personnel.⁴⁶ In addition, the legislation required the Department to consult and hold workshops alongside the development of the plan. The plan was to include a “preferred siting alternative”.

The Act’s guidelines provided that the preferred siting alternative must be designed in accordance with the following:⁴⁷

- 1) Each MPA shall have identified goals and objectives. Individual MPAs may serve varied primary purposes while collectively achieving the overall goals.
- 2) Marine reserves in each bioregion shall encompass a representative variety of marine habitat types and communities across a range of depths and environmental conditions.
- 3) Similar types of marine habitats and communities shall be replicated, to the extent possible, in more than one marine reserve in each biogeographical region.
- 4) Marine reserves shall be designed, to the extent practicable, to ensure activities that upset the natural ecological functions of the area are avoided.

- 5) The MPA network and individual MPAs shall be of adequate size, number, type of protection, and location to ensure that each protected area meets its objectives and that the network as a whole meets specified goals and guidelines.

A considerable area is now covered by some form of protected designation in Californian waters (over 16 percent),⁴⁸ and some commentators have noted signs that the initiative has been successful (eg in the form of more and larger fish and invertebrate life, especially in earlier MPAs).⁴⁹ But the extent to which it has achieved the aims of the Act is not yet evident. This may become clearer when the first “decadal review” of the MPA network is completed at the end of 2022.⁵⁰ However, it is notable that the state has taken a proactive, legally binding, approach in deploying a coherent network of MPAs according to clear objectives and principles. There are some similar design guidelines that appear in Aotearoa New Zealand’s MPA implementation plan, but these lack a statutory basis. In practice, despite some progress in recent years, MPA deployment has been slow and relatively ad hoc.

The California experience also shows the importance of complementary or supporting measures in an MPA strategy. It is not enough to establish “paper parks” on a map. Significant financial investment and active management, enforcement and education have been cited as factors that have set the Californian approach apart from others. For instance, recreational fishers catch and tag fish beyond (and, for some, within) MPAs to study the results of protection, mobile apps tell fishers where MPAs are located, and school groups survey coastal habitats.

Care needs to be taken to ensure that strategies are sufficiently focused to drive action; too broad, and there is the risk they will be worded in vague and indirect ways. But if they are too narrow, they might exclude considerations vital to their success.

Indeed, one of the reasons why MPA deployment has arguably failed so far is because spatial protections have not been considered in tandem with other measures, including those to protect, create or compensate for property rights and expectations (including in fisheries and aquaculture). The Biodiversity Strategy (2000), for example, noted that integration was needed between marine reserves and other marine protections under

the Fisheries Act, which has not been achieved. If proposals to establish MPAs fail to consider this broader picture, not only may opportunities for biodiversity enhancement be lost, but protected areas can have unintended impacts on other parts of the marine system (such as when fishing activity is displaced, increasing pressure elsewhere). A single-sector approach to spatial allocation, in the context of AMAs, ran into problems reinforcing the benefit of broader, higher-level spatial strategy.

The creation of cross-cutting strategies can be a mechanism through which different tools, potentially under multiple statutory frameworks, can be coordinated. However, most strategies in the current system lack legal influence or accountability around progress, thereby undermining their coordination function in practice.



Strategies in a future system could be made mandatory (guided by revised and carefully crafted statutory purposes) and have strong legal effect on the tools needed to realise their objectives.

10.5 A strategic approach to marine information

Two recent reports have contained recommendations relevant to how Aotearoa New Zealand might better manage marine information. The first, released in December 2020 by the Parliamentary Commissioner for the Environment, Hon Simon Upton, undertakes a deep dive into the funding and prioritisation of environmental research.⁵¹ Although not directly focused on marine information per se (but on the more general category of “environmental” information), the report’s recommendations are still very relevant to the marine domain.

A key recommendation was that government (through the Ministry for the Environment) should prepare and regularly update an *environmental research strategy* to guide the funding of public good environmental research and inform the environmental reporting system. Such a research strategy could contain a specific section addressing *marine* research, which can be more technically difficult and expensive. Under the Parliamentary Commissioner’s proposals, public resources for environmental research would be ring-fenced and allocated to researchers in accordance with the research strategy. The funds would be allocated either by the Ministry of Business, Innovation and Employment (as is currently the case for much public good funding) or by a newly established *Environmental Research Council*. Such an



Cape Rodney-Okakari Point marine reserve

Environmental Research Council would set criteria for funding allocation, develop and negotiate research platforms or programmes with long-term time horizons, and allocate a contestable funding pool for emerging issues and opportunities. In his report, the Commissioner commented that “I have reached the conclusion that environmental research is sufficiently distinct to merit its own funding allocation body with criteria that are tuned to the particular characteristics of research directed to environmental problem solving.”⁵² That could help provide a more balanced base of marine environmental research rather than the sectoral and fluctuating research that characterises the current system. How that is funded is important, and we looked at hypothecated funding tools in Chapter 8. A dedicated stream of work within a research strategy could be focused on mātauranga Māori, led by mana whenua and in which a Tikanga Commission (see Chapter 12) could have an oversight role.⁵³

A subsequent report released by the Prime Minister’s Chief Science Advisor, Professor Dame Juliet Gerrard, in February 2021 investigated the management of information related to commercial fishing specifically.⁵⁴ In the foreword to the report, Professor Gerrard described the current situation with fisheries data as follows:⁵⁵

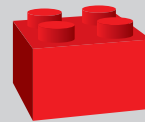
We do have a lot of data about the ocean but in many ways, we also know frighteningly little. What we do know is often uncertain creating error bars in measurements which foster the differences in interpretations that fuel dissent. The data we do have is poorly integrated across different stakeholders. The mountain of electronic and other data collected for compliance purposes could be better mined for environmental, commercial, and social outcomes. New tools can support this if the data is shared. Aggregation of non-sensitive data from industry sources and integration with data from a wider range of scientists from different disciplines and regulators could radically change the amount of information available on which to based decisions, and the decision-making processes must be open to incorporate this data in a transparent way. Deep local knowledge and mātauranga Māori are also under-used and we could listen more to on-the-ground expertise.

Professor Gerrard goes on to highlight the lack of funding and connectivity within the fisheries information system:⁵⁶

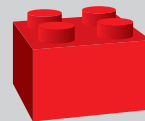
The industry levy funds vital data gathering and research for significant commercial species. It does not pay for basic public good research or research that would be valuable for other fished species. This creates a resourcing shortfall, unreasonable expectations on this funding, a lack

of trust and perverse incentives. There are many new high-tech tools and cool new ideas that could change the way we fish, but public good funded research is not always well connected to industry questions or environmental challenges ... Relationships between researchers looking at different aspects of the marine environment, housed in different institutions, mirror the poor relationships in the sector as a whole. A lot of energy is wasted trying to deconstruct an opposing narrative, which could be better spent coming to a shared understanding.

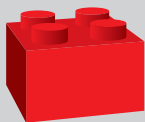
In her recommendations on ways to resolve these problems, Professor Gerrard echoes the Parliamentary Commissioner’s views by proposing a funding and research strategic action plan for fisheries. She also proposes that a data platform be established that “facilitates integration of data from a range of sources, compiles datasets in an accessible centralised platform, and turns them into information that can be readily applied in fisheries management and other areas of the marine domain, including state-of-the-art environmental reporting”.⁵⁷ In Canada, revamped fisheries legislation expressly recognises the importance of indigenous knowledge in decision-making and has established a public registry for fish habitat proposals and decisions. A cross-cutting and integrated approach to identifying research needs, funding it, using information across sectors in a strategic way, and sharing/presenting information in an efficient, user-friendly and transparent way are strong themes for policy makers to consider not just for commercial fishing but also for the marine environment as a whole.



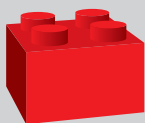
An environmental research strategy, containing a specific part on marine research and information, could be made mandatory and have legal influence over how integrated research is created, funded and deployed to achieve clearer cross-cutting objectives for the marine environment. The strategy could provide for large “one-off” exercises such as a national coastal habitat mapping project.



Marine information could be stored in a more consistent way in a national database, or using compatible databases across councils, national agencies and sectoral bodies, and be linked to clear reporting of both research and time-series monitoring data under the Environmental Reporting Act.



An Environmental Research Council or another independent agency such as an Oceans/Tikanga Commission could oversee the marine research and information system.



Funding for environmental research (or even marine components of it) could be ringfenced/hypothecated using revenue from tools like resource rentals.

Reewyn Peart



Oyster processing, Clevedon

10.6 Marine spatial planning

Various strategies exist for particular sectors (eg fishing, aquaculture, mining) and domains (climate change, biodiversity, freshwater). Yet aside from in the Hauraki Gulf, a noticeably missing lens in our plethora of non-statutory strategies is one that looks at the *oceans* as a single space. Some have proposed marine spatial planning as an integrative tool to fill this gap.

If we were to develop a framework for marine spatial planning in Aotearoa New Zealand, we would need to have some clarity around what it means, and therefore what it could be expected to deliver. Marine spatial planning has become increasingly popular internationally, with UNESCO identifying initiatives (at various stages of progress) in around 70 countries.⁵⁸ All member states of the European Union were required to establish maritime plans by 2021, which has resulted in a plethora of marine planning activity in that region.⁵⁹

Various definitions have been proposed for marine spatial planning. This is partly a reflection of the evolving application of the tool over the last 30–40 years and the different drivers and outcomes sought in various contexts.⁶⁰ UNESCO's 2009 publication *Marine spatial planning: A step-by-step approach towards ecosystem-based management* provides the following definition:⁶¹

Marine spatial planning (MSP) is a public process of analyzing and allocating the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic, and social objectives that are usually specified through a political process.

The European Union Directive on Maritime Spatial Planning 2014 defines maritime planning as “a process by which the relevant Member State’s authorities analyse and organise human activities in marine areas to achieve ecological, economic and social objectives”.⁶² In 2010 a group of 21 scientists offered a different definition which emphasises the delivery of ecosystem services:⁶³

Ecosystem-based MSP [marine spatial planning] is an integrated planning framework that informs the spatial distribution of activities in and on the ocean in order to support current and future uses of ocean ecosystems and maintain the delivery of valuable ecosystem services for future generations in a way that meets ecological, economic, and social objectives.

This definition expressly recognises the need to maintain ocean ecosystem services, and therefore brings a focus to the underlying health and productivity of marine ecosystems, consistent with ecosystem-based management. Drawing on this approach, we have adopted a working definition of marine spatial planning for the purposes of this analysis (although there are many different options and we would expect a more nuanced definition to be developed as a result of any formal policy development process):

Marine spatial planning in Aotearoa New Zealand is an integrated, strategic planning approach which guides the management of activities that cumulatively impact on the marine environment in order to maintain and restore healthy ecosystems while providing for kaitiakitanga and current and future uses.⁶⁴

Marine spatial planning in Aotearoa New Zealand

The key point is that spatial planning in the marine area can improve connections between parts of the management system that might have different regulatory processes with different purposes, different stakeholders, different timeframes, and different subject matter. It is something that focuses on place – through identifying and mapping specific values and actions – rather than on general principles and

outcomes. It is also important to note that it is as much about the process of *planning*; which brings together iwi/hapū and stakeholders to build relationships, and continues after a plan has been made; as it is about the resultant *plan* itself. This is closely linked to Treaty partnerships.

In Aotearoa New Zealand there is currently no legislative provision for integrated marine spatial planning. The RMA goes part of the way there, with the requirement to develop regional coastal plans (and the ability to link these to catchment plans), which include spatial measures. But these do not address matters outside the jurisdiction of regional councils (notably control of fishing for Fisheries Act purposes, and the creation of marine reserves).

Despite this legislative vacuum, we have seen the successful completion of a marine spatial plan for the Hauraki Gulf in late 2016 (see case study below). That project applied an ecosystems lens to the Hauraki Gulf's marine environment, identifying the strategic drivers of ecological decline and actions needed to address them. At the same time, it sought to make provision for cultural, social and economic uses of the Gulf, including through strengthening the role of mana whenua in marine management, supporting the fishing industry to move to higher value fisheries, and providing space for the expansion of aquaculture. It was about using our tools in a purposive and aligned way (and recommending new ones).



Seachange Tai Timu Tai Pari field trip

A spotlight on Sea Change Tai Timu Tai Pari

The Sea Change Tai Timu Tai Pari project had its inception in the Hauraki Gulf Forum's 2011 *State of our Gulf Report*, which indicated that current management approaches were not sufficient to reverse the ongoing environmental decline of the marine system.⁶⁵ At the same time, there was growing awareness that marine spatial planning was becoming increasingly popular overseas. In order to understand what such an approach might contribute to the Hauraki Gulf, the Forum commissioned an international review of marine spatial planning. The resultant report, which was also released in 2011, concluded that "marine spatial planning is a well-accepted strategic planning process which could help achieve the purposes of the HGMPA [Hauraki Gulf Marine Park Act] including integrated management and the protection and enhancement of the life-supporting capacity of the Gulf."⁶⁶

The report generated considerable interest, and with the encouragement of the Hauraki Gulf Forum and EDS, Auckland Council and the Waikato Regional Council agreed to lead a marine spatial planning project in partnership with iwi, the Department of Conservation and the Ministry for Primary Industries.

A 16-member co-governance Project Steering Group was established to oversee the project, develop the terms of reference for the Stakeholder Working Group, and adopt the marine spatial plan once it had been written. Members consisted of eight representatives of the statutory bodies involved in managing the Gulf and an equal number of mana whenua representatives.

The Stakeholder Working Group undertook the actual work of developing the marine spatial plan. It consisted of representatives from commercial and recreational fishing, farming, aquaculture, infrastructure, community and environmental interests. Four positions on the group were made available to mana whenua. The group operated on a consensus basis which meant that "every member either supports or does not actively oppose (can live with) the decision."⁶⁷

The Stakeholder Working Group first convened in December 2013, and met approximately monthly up until late 2016 when

the plan was completed. An Independent Chair, appointed by the Project Steering Group, facilitated the group. During the early stages of the project six "Roundtables" were established to focus the plan development work on key elements of the overall picture as well as to involve a broader range of stakeholders. The topics for the Roundtables were fish stocks, water quality and catchments, aquaculture, biodiversity and biosecurity, accessible Gulf and Gulf infrastructure.

The resultant marine spatial plan was structured around four keke of knowledge: Kaitiakitanga and Guardianship; Mahinga Kai – Replenishing the Food Baskets; Ki Uta Ki Tai – Mountains to Sea; and Kotahitanga – Prosperous Communities.⁶⁸ The front end of the plan, which largely consists of objectives and actions, was supported by a summary of the scientific basis underpinning the plan in appendices.⁶⁹ There was no legislative straitjacket for the plan to work around, so it was able to be structured in a way that was sensitive to context and tikanga.

The plan identified 13 new aquaculture areas and 13 new protected areas as well as an extension in size of two existing marine reserves. In addition, an extensive area was identified as being unsuitable for aquaculture due to its proximity to the Auckland metropolitan area where there are many potentially conflicting uses of the water space. Fishing was also tackled, and the plan recommended that large benthic areas be protected through the retirement or mitigation of key stressors, such as bottom trawling, in order to allow natural regeneration. Smaller areas within these zones were to be the focus of more targeted passive restoration (through the establishment of marine reserves) and active restoration through the transplanting of species and/or establishment of new habitat patches.

Fishers were to be assisted to transition to methods such as long-lining, which produce higher quality fish, achieve a higher market price, and have less environmental impact. Without that broader framing – what should go where, and support for making changes – the deployment of protected areas and fisheries restrictions could struggle to get traction, being seen only as a removal of rights. Breaking down statutory silos creates opportunities for dialogue and synergies, rather than conflict, lobbying and ultimately stasis. While not free of problems,⁷⁰ the Sea Change

process offers a number of lessons for marine spatial planning in a future system. The government has recently announced a package of measures it intends to take to implement the non-statutory plan.⁷¹

There is currently no legislative framing for integrated marine spatial planning in Aotearoa New Zealand. However, a non-statutory marine spatial planning process was undertaken through the Sea Change Tai Timu Tai Pari initiative.

Benefits of marine spatial planning

Marine spatial planning provides a number of things that the current system does not.

- It is *strategic*, rather than reactive – it is a plan for what is going to happen in the future and when, and is focused on driving positive change rather than just mitigating harm. For example, it could contemplate how protected areas, aquaculture areas and other activities could move in response to a changing climate (warming seas), biosecurity risks or population change.
- It is *integrated* – it contemplates the deployment of multiple tools under different frameworks as a package. Currently there are a large number of marine-related statutes with no overarching mechanism to ensure they (or, rather the tools under them) are interacting coherently.
- Its *objectives are multi-faceted*, and it provides the opportunity to realise synergies (rather than just considering a single sector such as marine protection or aquaculture).

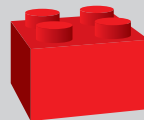
One commentator has said that marine spatial planning can overcome the “mismatch between the goals of EBM [ecosystem-based management] and the realities of their implementation across different spatial and temporal scales”.⁷² Because of its integrated nature, marine spatial planning provides an opportunity to fulfil the Crown’s obligations under te Tiriti o Waitangi in the marine area, and a mechanism to integrate mātauranga Māori into marine management. Dealing with a particular place provides a much better opportunity to achieve this, by engaging with local knowledge

and tikanga. A future framework for marine spatial planning will need to draw on mātauranga Māori as a key source of knowledge and reflect the values of tangata whenua in the relevant marine area.

Marine spatial planning can be undertaken through a collaborative process, although not necessarily. The future may see a shift towards a more collaborative and negotiated style of environmental decision-making (noting that collaborative decision-making is a feature of tikanga Māori), although the potential for a consensus-based model to work may be reduced by increased diversity in the country’s population, and tensions over resource use. Furthermore, there may be natural justice risks in using a collaborative or negotiated process (which cannot include everyone), particularly if it results directly in regulatory change under different legal regimes with their own statutory purposes. Moreover, international experience provides a warning:⁷³

where [ecosystem-based management] is equated with MSP [marine spatial planning], and in the presence of competing marine interests ... efforts have focused on the establishment of marine protected areas. This is often at the expense of environments outside of ‘pristine’ areas, and of local community or Indigenous rights which could be complementary to environmental objectives.

Integrated marine spatial planning has a number of potential benefits. It provides a forward-looking strategic lens and a pathway to achieve objectives, a mechanism to integrate different tools under separate statutory (and non-statutory) frameworks, and a forum for collaborative conversations to happen that are place-based and not just focused on one interest at a time.



A future system could provide for the mandatory creation of marine spatial plans to integrate or coordinate the use of other tools (regulatory and non-regulatory) in a particular place.

Content of marine spatial plans

There are different options for what a marine spatial plan could include. Some things would be common – plans should contain a robust description of the state of the marine area, its importance to those using it, and a broad and comprehensive description of pressures or issues faced.

Plans could include a vision statement, objectives and desired outcomes (including environmental bottom lines). They could also include the spatial identification of marine areas to be managed for specific purposes and areas suitable or not suitable for specific activities. Plans could be non-regulatory, in the sense that they would not have direct binding effect on individuals. However, they could be given force through links to regulatory plans, such as regional coastal plans under the RMA and fisheries plans under the Fisheries Act.

Alternatively, marine spatial plans might themselves contain regulatory provisions. These could, for example, create a layer of MPAs through the plan itself, without relying on clunky mechanisms under other legislation. However, that could cause more complexity when it comes to legislative design (see Chapter 11).

Raewyn Peart



The Noises

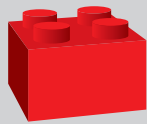
A spotlight on MPA planning within a spatial plan

Planning for MPAs alongside (or within) marine spatial planning enables all activities and environmental pressures to be considered simultaneously, providing more certainty for ocean users, communities and the environment. This can help enhance the performance of MPAs by zoning or providing incentives for synergistic marine-use areas (eg regenerative aquaculture or ecotourism) close to MPAs, creating low impact buffer zones around vulnerable MPAs, and directing incompatible activities to where they would cause least harm. It can mitigate the effects of strict protection, which can concentrate fishing and other pressures elsewhere. This can provide “a broader perspective of how MPAs are nested within a marine spatial plan, and increase ecological representativeness through protection of important areas, including those not selected as sites for MPAs, where [other] conservation measures could be proposed and implemented”.⁷⁴

However, on the other hand, such an approach can result in diluted MPA proposals because the focus can move from biodiversity protection to other, user-related considerations. It risks becoming a negotiation, rather than being a science-based exercise, especially if a collaborative process is used to reach decisions. One option would be to take an ecologically focused approach to establishing MPAs (ie locating them where they would best protect biodiversity) and to only then consider how other activities can operate around them. This would be a two-stage exercise. However, separating MPA planning and marine spatial planning can increase costs, cause stakeholder confusion around the planning process, and risk the process stalling during the first stage which might be seen as just giving up rights without consideration of opportunities or compromises.⁷⁵

Spatial plans could also contain strategic measures. These might include an action plan of the tasks needed to be undertaken by agencies, iwi/hapū or stakeholders to achieve the desired outcomes. Provisions could set out matters such as marine research priorities, biosecurity measures, stricter catchment management, needed coastal infrastructure, and shellfish beds, wetlands and dunes to be restored. Funding arrangements to implement these provisions would need to be identified and could be encapsulated in “implementation agreements” as recommended by the Randerson Panel.⁷⁶

Finally, marine spatial plans could contain a “monitoring and evaluation” section. This could identify key performance indicators to allow progress towards the plan’s objectives and outcomes (including environmental limits) to be ascertained. Indicators could relate to matters such as nutrients, sediment, habitats, biodiversity values or fish stocks. Some outcomes could have aligned targets (interim steps on the way to achieving the long-term outcome) established. They could also include triggers whereby prescribed management action would be required if targets were not being met. This is not dissimilar to the structure of environmental limits, targets and outcomes set out in the proposed NBA.



Marine spatial plans could include environmental bottom lines, targets and outcomes for the marine area. They could be strategic only, and rely on implementation through other frameworks. Alternatively, they could include regulatory provisions themselves as a direct pathway for things like environmental limits and MPAs.

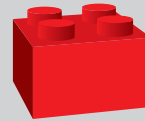
Triggers for marine spatial planning

Marine spatial planning can be applied “wall to wall” to a country’s entire marine space, or be deployed more specifically to some areas when there are pressures or conflicts to be addressed. Which option is preferable depends on how we frame the purpose of marine spatial planning. Is it a conflict resolution tool? Or something more? A middle road is to gradually roll out marine spatial planning to the entire marine area, over time, but to start in areas where there are currently significant issues.

The “wall to wall” approach has been favoured in other jurisdictions. The European Union Directive on Maritime Spatial Planning requires member states to “establish and implement” maritime plans for all their marine waters.⁷⁷ In response England, for example, is rolling out a series of 10 marine plans throughout its territorial sea and EEZ.

The Randerson Panel took a similar approach for the preparation of regional spatial strategies, which it recommended should include all the coastal marine area. After considering a more targeted approach, the Panel concluded that such spatial planning should be mandatory for all regions, but with provision for prioritisation and sequencing by the responsible Minister(s). This was because spatial planning was seen to have broad benefits which would be applicable around the entire country.⁷⁸

An important consideration, in deciding an approach to rolling out marine spatial planning in a targeted or broader manner, is the considerable resources required to mount an integrated planning exercise for the marine area. Fully integrated marine spatial planning can be resource intensive and it is therefore not something to be embarked on lightly; there should arguably be a pressing need, complex issues or conflicts to resolve, and an appetite for change (ie to implement it).⁷⁹



Marine spatial plans could be targeted to areas where there are particular issues or conflicts or they could cover all the country’s marine areas. There could be specific trigger points specified for when a planning process was deemed necessary.

Connection with terrestrial planning

It is important that there is a strong link between marine spatial planning and terrestrial spatial planning. This is because the latter is an important tool for addressing impacts *on* the marine environment, including on marine industries (eg through determining where agriculture and forestry can and cannot go and where cities are to expand). We have previously pointed out that in the Sea Change Tai Timu Tai Pari context:⁸⁰

The impact of poor water quality on the ecological health of the Hauraki Gulf was one of the greatest areas of concern, with the main stressor being sediment ... The approach set out in the plan is wide-ranging and includes measures to reduce soil erosion, to minimise sediment entering waterways and to stabilise sediment once it has reached the marine environment ... The plan recommends that a cap is placed on nitrogen discharge levels which are to be kept at or below current rates until sufficient scientific work had been completed to enable an appropriate nutrient load limit to be put in place.

This raises the question as to whether terrestrial and marine spatial planning are in fact so inter-linked that they should occur together, and whether the proposed framework for spatial planning under the Strategic Planning Act should include marine spatial planning (see Chapter 6 and Appendix 3). A recent Cabinet paper has confirmed that the Strategic Planning Act is intended to apply to the coastal marine area;⁸¹ and depending on how it is drafted, it may also be compatible with rollout in the EEZ. Alternatively, the provisions in marine spatial plans could serve to drive responses in terrestrial plans (a “sea to the mountains” approach), including through directly influencing or changing provisions in regional and district plans.

A spotlight on marine spatial planning in the United Kingdom

Marine spatial planning in the United Kingdom is undertaken within the auspices of the Marine and Coastal Access Act 2009. This establishes a regime for marine planning as well as broader regulation of the country's marine area. The Act was heralded as "a trailblazing piece of legislation" as "it marked the point at which marine spatial planning became an established part of the administration of marine activities in UK waters".⁸²

The Act applies to the entire British marine area including the territorial (or "inshore") seas, and the EEZ or "offshore" seas. It provides for a two-tiered approach to marine planning,⁸³ which includes the preparation of marine policy statements (which are discretionary), and marine plans, which are mandatory where there is a marine policy statement in place for the area, but which are otherwise discretionary.

Under the Act, a marine policy statement is to set out general policies for contributing to the achievement of sustainable development within the country's marine area.⁸⁴ Such a statement was adopted in 2011. It sets out a vision for the marine environment which is for "clean, healthy, safe, productive and biologically diverse oceans and seas".⁸⁵ It includes 21 high-level marine objectives grouped under the themes of achieving a sustainable marine economy; ensuring a strong, healthy and just society; living within environmental limits; promoting good governance; and using sound science responsibly.⁸⁶ It confirms that the statement and marine plans "form a new plan-led system for marine activities" providing for "greater coherence in policy and a forward-looking, proactive and spatial planning approach to the management of the marine area, its resources, and the activities and interactions that take place within it".⁸⁷

Because a marine policy statement exists for the whole of the country's marine area, marine plans are mandatory for the entire territorial sea and EEZ.⁸⁸ Under the Act, a marine plan is required to state policies for the sustainable development of the area, identify (by means of a map or otherwise) the marine plan area that it relates to, and conform with any relevant marine policy statement.⁸⁹ The marine policy statement further explains that "marine plans will provide a clear, spatial and locally-relevant expression of policy, implementation and delivery".⁹⁰ They are to be "based on an ecosystem approach" and be "participative and informed by data provided by consultees, stakeholders, regulators and relevant experts".⁹¹

The responsibility for preparing marine plans lies with the Secretary of State (for England), Welsh and Scottish Ministers, and Department of the Environment in Northern Ireland for their respective areas. These functions may be delegated to a public body, although the decision to adopt and publish a plan, once prepared, remains with the Ministers/Secretary of State/Department of the Environment.⁹²

In England, the Secretary of State's marine planning powers have been delegated to the Marine Management Organisation which is an executive, non-departmental public body with broad statutory marine functions (effectively acting as an integrated oceans agency – see Chapter 12). In Scotland, the development of regional marine plans has been devolved to marine planning partnerships which consist of "marine stakeholders who reflect marine interests in their region".⁹³ These include representatives from local councils, fishing and other industries, and environmental and recreational non-governmental organisations.⁹⁴

Before beginning work on developing the plan, the marine planning authority must give notice to councils, whose area of jurisdiction lies adjacent to the marine planning region.⁹⁵ It must also publish a statement of public participation.

The statement of public participation must identify the area for which a plan is being prepared⁹⁶ and invite representations on matters to be included in the proposed plan (ie before a consultation draft is prepared).⁹⁷ It must also include a proposed timetable for the preparation and publication of a consultation draft, the making of "representations" (ie submissions) on the draft, their consideration, and the adoption and publication of the plan.⁹⁸ Provision may be made for public meetings to be held. The marine plan authority must take "all reasonable steps" to comply with the statement and it must be kept under review.⁹⁹

Once proposals for the marine plan have been developed, a consultation draft must be publicly notified.¹⁰⁰ Prior to this, a sustainability appraisal must be carried out on the draft plan and the results of this published at the same time as the consultation draft.¹⁰¹ Submissions on the consultation draft can be made by any person, in accordance with the statement of public participation.¹⁰²

The marine plan authority must consider appointing an independent person to investigate the proposals contained in the consultation draft and to report on them, but is not required to do so.¹⁰³ If

appointed, the independent investigator makes recommendations on the plan and these must also be made public.¹⁰⁴

The marine plan is adopted once the marine plan authority has decided to publish the plan. This can only be done with the agreement of the Welsh and Scottish Ministers (for Wales and Scotland respectively), the Secretary of State (for England) and the Department of the Environment in Northern Ireland.¹⁰⁵ Thus, while a delegated agency may be responsible for preparing the marine plan, it operates within the framework of broader government policy.

Marine plans have legal status insofar as any public authority must take any authorisation or enforcement decision “in accordance with” them, and have regard to them when taking any other decisions affecting the marine area.¹⁰⁶ Having said that, enforcement and authorisation decisions do not have to comply with the marine plan if relevant considerations indicate that they should not. In that case, reasons for that decision must be stated.¹⁰⁷

The marine plan authority must keep the marine plan under review and report to Parliament every three years on the effect of the policies, their effectiveness in securing the objectives of the plan, progress made towards securing the objectives, and whether the objectives of the marine policy statement are being met.¹⁰⁸ After a report is published, the marine plan authority must decide whether or not to amend or replace the marine plan.

Ten years after the passage of the Marine and Coastal Access Act, two regional marine plans have been adopted in England (in 2014 and 2018) and an additional four are well advanced. Scotland adopted a national marine plan in 2015 and is now working on regional plans. Wales adopted a national marine plan in 2019.¹⁰⁹ A review of the effectiveness of the plans indicated that many of their policies were expressed in broad terms, and others were conflicting and/or ambiguous, meaning that they appeared to have little effect on licencing decisions. The reviewers recommended that policies needed to be strengthened and made more specific. They also noted that efforts were needed to change the culture of licencing officers who were reluctant to apply policies within marine plans to their decisions. In addition, they suggested that the plans should be subject to legal challenge, in a similar way to terrestrial plans, as this enables a pragmatic approach to be applied to their application.¹¹⁰

In Scotland, where regional planning has been devolved to stakeholder groupings, interviews with participants identified strong support for the approach, as opposed to plan making

being led by a central authority (eg the Marine Management Organisation in England). The devolved approach “supported learning regarding other perspectives and building of trust between organisations” and had assisted with “conflict avoidance by enabling developers to explore appropriate siting of activities”.¹¹¹ This was similar to the findings from a review of the Sea Change Tai Timu Tai Pari project where the collaborative process was seen as one of its biggest strengths.¹¹²

Lessons that can be drawn from the United Kingdom experience include the need to include clear and directive provisions in plans, to have a clear implementation pathway through linkages with consenting decisions, and to address planning and consenting culture in implementation. The Scottish experience also indicates the strength of adopting a devolved approach in bringing stakeholders together, building trust and helping to resolve conflicts.

International experience highlights the importance of marine spatial planning having clear and direct influence on decision-making, and a clear implementation pathway, as well as the value in collaboration between stakeholders.



Ilfracombe, North Devon, United Kingdom

Raewyn Peart

10.7 From spatial planning to an oceans policy

Reforms to better integrate the ocean management system could go beyond the incorporation of a marine spatial planning framework, to think more broadly about an integrated oceans policy. As with marine spatial planning, that could mean different things.

At root, a national oceans policy is essentially a mechanism to provide a coherent approach for oceans management across a country's entire oceans realm. This is in the context of typically fragmented legislative and institutional arrangements. It is often seen as a way to address conflicts between different ocean uses, to support new uses, and to provide protection for ecosystems and species. It is not place-based like marine spatial planning, and instead sets out a vision for the oceans as a whole accompanied by a set of high-level principles.¹¹³

This could end up being little more than a politically driven agenda for reform – a manifesto for change – which is arguably what the government's recent establishment of a vision and objectives for the oceans is.¹¹⁴ However, an oceans policy could be conceived of as something more concrete – a structural and living feature of a future system (an actual instrument with ongoing influence). It could incorporate a strategy for *deploying* marine spatial plans.

Raewyn Peart



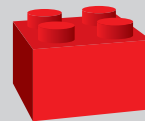
Tahunanui Beach

A spotlight on a Marine Spatial Planning Strategy

One way to achieve a coherent or principled roll out of marine spatial plans would be for the responsible Minister to develop a “Marine Spatial Planning Strategy”, which would set out a programme for developing marine spatial plans. This would be similar to the marine policy statement provided for under the United Kingdom Marine and Coastal Access Act, which creates the framework for the preparation of marine plans.

The Strategy could be reviewed at least every 10 years, and identify priority areas for marine spatial planning over the next 10-year planning period, based on a set of statutory criteria. Preparation of the Strategy would necessitate a strategic look at which parts of the coast and marine environment should be targeted, and in what order, allowing prioritisation of effort. High pressure and contested areas, or those that are particularly vulnerable, might be prioritised. The Strategy could also set out high-level objectives for marine spatial plans in the identified areas, akin to a terms of reference. This would enable, for example, an objective to be included on increasing MPA coverage in a proposed planning area, making greater provision for aquaculture or renewable energy or providing for public infrastructure.

A Marine Spatial Planning Strategy could also allow public funds to be set aside for plan development and implementation, and encourage agencies to align other planning and funding processes with the marine spatial planning process (eg regional councils could decide to defer changing regional coastal plans until the process was complete).



A Marine Spatial Planning Strategy, developed by the Minister of Oceans, could provide a policy framework for marine spatial planning and set out a programme for developing marine spatial plans in targeted areas.

However, the concept of an oceans policy goes beyond just marine spatial planning. For example, it could outline strategic actions to reduce pressures on the marine area that are not “spatial” or place-based, such as measures to reduce production of plastics or their release to the environment,

funding for the improvement of stormwater and wastewater infrastructure, and building controls to mitigate impacts on the marine environment.¹¹⁵

Public presentations given by the former Oceans Secretariat in the 2000s, before that oceans policy process was halted, indicated that the proposals developed at that time included a statement of a *vision* for the oceans; a set of overarching *objectives* to govern management of the oceans; and the development of a *National Oceans Plan* to set national priorities, baseline ecological standards, and processes and tools for reconciling competing uses. In the report of the Ministerial Advisory Committee, established as part of the oceans policy process, the Chair highlighted that the consultation process had identified a high degree of interest in the idea of preparing a “comprehensive national policy” and agreement that it was timely to try to “define a vision and develop an overarching framework to guide and rationalise the management of our interaction with the seas”.¹¹⁶

Of course, this was before the advent of the EEZ Act, when there was a glaring hole in the oceans management system for that space. However, commentators like Karen Scott still see a justification for an oceans policy as an integrative device, despite some gaps having been filled.¹¹⁷ She recently suggested that an oceans policy should include an articulation of values, goals and principles and development of processes to support bioregional and/or spatial planning.¹¹⁸ It could promote the implementation of ecosystem-based management across Aotearoa New Zealand’s marine area, facilitate integrated management, provide an ecologically coherent framework for area-based protection measures, provide a framework for co-governance of ocean resources with Māori, raise the profile of oceans as an economic and environmental priority, and help to implement Aotearoa New Zealand’s international commitments and demonstrate international leadership.¹¹⁹ An oceans policy could also provide a framework for futures scanning – to ensure that it remained a living document that was sensitive to changes in the marine environment, such as those driven by climate, technology and societal changes.

Scott suggests that a co-governance Oceans Council be established to develop, report on, and provide advice in relation to, a “New Zealand Oceans Policy”. A new “Ministry for Ocean Affairs” would then be given the mandate for the operational implementation of the policy along with other oceans matters.¹²⁰ We discuss institutional settings further in Chapter 12.

The Prime Minister’s Chief Science Advisor recently also recommended to government that it “develop a bold *Oceans Strategic Action Plan* for 2040 to protect and manage Aotearoa New Zealand’s territorial sea and EEZ, with a clear integrative framework to prioritise, coordinate, implement and measure outcomes to achieve 100% sustainably managed oceans.”¹²¹

In terms of the fisheries component of such a plan, she suggests that the Action Plan could include a definition and role for an ecosystems approach to be applied to fisheries; provide a clear framework for reporting, decision-making, planning and responsibilities; provide a framework for the development of fisheries-related plans; include actions to support a move from volume to value in commercial fisheries; and prioritise actions across a multi-year programme. The Oceans and Fisheries Minister was identified as the appropriate Minister to lead the development of the Action Plan.¹²²

EDS’s previous analysis of the development of national oceans policies in the USA, Australia, Canada and Aotearoa New Zealand identified five key elements of such policies. These still resonate today and provide a broad architecture to encompass many of the suggestions above.

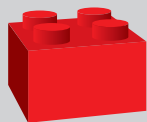
- *A common purpose* for the management of oceans, which can be articulated in the form of a vision for the oceans and high-level management objectives and principles which are to apply to oceans management.
- *Integrative mechanisms* to jointly harness the actions of different oceans managers to achieve the common purpose. This may be through joint committees, working bodies, advisory bodies and/or the establishment of specialist oceans institutions.
- *Strategic actions* which are required to implement the policy. These often focus on addressing gaps and conflicts in the current oceans management system. This can include such matters as reforming outdated legislation (such as the Marine Reserves Act) and reviewing the management of specific sectors such as aquaculture or fisheries.
- *A framework for area-based planning* (marine spatial planning) which applies the principles of the policy to a specific marine ecosystem (place), as described above.
- *Performance management systems* which include the ongoing monitoring of the health of the oceans and regular review of the effectiveness of management actions. This enables progressive “learning by doing” and the adaptation of management approaches and the oceans system more broadly, in light of new information or changes in technologies, markets and community values. Oversight mechanisms could include the Parliamentary Commissioner for the Environment being tasked with undertaking regular independent reviews of the implementation of oceans policy.

Such an oceans strategy or policy could form the normative glue that holds disparate parts of the system together. Others have said a similar thing, describing it as a normative “anchor” for the system. It would be similar to the *Te mana o te taiao – the Aotearoa New Zealand biodiversity strategy*, which:¹²³

provides a holistic, integrated, intergenerational approach to protecting and preserving biodiversity based on *Te Ao Māori* (Māori worldview)... [and] recognises that humans are a part of nature, and have kinship relationships with living natural ecosystems, and seeks to set fundamental objectives and values applying across the regulatory regime.

That said, careful thought would need to be given to how effective this normative glue or anchor could be in practice when faced with prescribed statutory principles that might differ and take primacy when decisions were being made under other legislation. Nevertheless, in terms of fisheries, some are optimistic that a strategy should set:¹²⁴

an expectation that any fisheries-related plans, when created or revised, must specify how they will progress the objectives of the Oceans Strategic Action Plan and demonstrate progress against this in annual review reports.



A national level Oceans Policy could be a strategic instrument, going far beyond just an action plan for rolling out marine spatial plans. It could, with sufficient framing, be a form of “constitution” for the oceans.



Waves, Ōrere Point

A spotlight on Australia's Oceans Policy

Australia's oceans policy, released in 1998, consisted of two volumes. The first volume set out the overall vision and goals for the Policy, described the concept of ecosystem-based oceans planning and management, set out the institutional arrangements for implementation and identified some key initial actions to be carried out by the federal government. The second volume identified specific proposed actions for particular economic sectors and some other areas. The key implementing mechanism for the Policy was to be the development of what were called “regional marine plans”.¹²⁵

Four institutions were put in place to support implementation. A National Oceans Ministerial Board of Commonwealth Ministers was to have an oversight role and approve regional marine plans. Reporting to the Ministerial Board was an independent executive agency in the form of a National Oceans Office. A National Ocean Advisory Group was established to provide input from a range of sectors and it included members from industry, science, conservation and the community as well as government stakeholders. Regional Marine Plan Steering Committees were also established by the Ministerial Board. They comprised non-governmental and governmental regional stakeholders, and were to oversee the development of regional marine plans. An Oceans Policy Science Advisory Group was also subsequently established to provide science input.¹²⁶

However, it has been said that “the consensus is now that the Oceans Policy has failed to realise its full potential ... and Australian marine and coastal regulation continues to be described as highly fragmented, *ad hoc*, inconsistent and inefficient.”¹²⁷

A spotlight on Canada's Oceans Strategy

Under the Canadian Oceans Act 1997, the Minister of Fisheries and Oceans was given the task of leading and facilitating the development and implementation of a “national oceans management strategy”. The strategy was to be based on the principles of sustainable development, integrated management

and the precautionary approach. The Act emphasises the importance of ecosystem-based management, stating in the preamble that “conservation, based on an ecosystem approach, is of fundamental importance to maintaining biological diversity and productivity in the marine environment”.

A high-level strategy was released in 2002.¹²⁸ It was followed in 2005 by an Oceans Action Plan. This identified 18 specific initiatives to be undertaken across six federal departments.¹²⁹ A key focus of the Action Plan was the application of integrated management planning to large ocean management areas (a form of marine spatial planning). Planning for these areas was to be undertaken on a collaborative basis between the various management agencies, indigenous peoples and stakeholders. Implementation of the Oceans Action Plan was being overseen by a Deputy Minister’s Interdepartmental Committee on Oceans which consists of representatives of 19 federal departments and agencies involved in oceans management. However, the programme has struggled due to the marine plans lacking direct legal force.

In short, Canada’s experience has been one of trying to use a more integrated strategy, followed by an action plan, to coordinate multiple institutions and multiple legislative frameworks towards a common end. It has been about using an additional layer of measures to bring together what was already there (improve connections and align actions), rather than redesigning that system itself. It tries to act as the “glue”.

However, reviews have since identified impediments to the successful implementation of Canada’s Oceans Act. Specific problems include¹³⁰ no requirement for other federal departments to comply with or implement the Act and no specific provision to give integrated management plans legal force. Criticisms have continued in recent years, pointing out the failure to properly implement the legislation (with much discretion remaining with Ministers), the weakening of habitat protections through separate fisheries legislation, the lack of central leadership to protect threatened species, and inconsistency between the Strategy and the Action Plan expected to implement it.¹³¹ More targeted reforms (particularly to strengthen MPA deployment) have been progressed in the last few years, but have been achieved largely through direct legislative amendment rather than by strengthening the place of the strategy itself.¹³²

Reflecting on the Australian and Canadian examples, it would make sense for an oceans policy in Aotearoa New Zealand to be closely linked to a framework for marine spatial planning, just as national level policy under the RMA is closely linked to place-based planning for the coastal marine environment. Marine spatial planning would be one way – but not the only way – in which a policy would be implemented at place.

10.8 Do strategic tools need statutory backing?

When it comes to the creation of significant new tools, like marine spatial planning and an oceans policy, we need to consider whether such things require legal framing. The Sea Change Tai Timu Tai Pari marine spatial planning process was non-statutory, and provided many lessons. It was extremely valuable in bringing together various government agencies, Māori, councils and stakeholders to work together and consider how various tools could be deployed in a more integrated way. It provided a forum. However, implementation has been slow, including it taking over four years for the government to make a commitment to its implementation. And that has yet to become a legal commitment. So should we legislate for marine spatial planning? And for an oceans policy?

On the one hand, Sir Geoffrey Palmer and the Legislation Design and Advisory Committee remind us that we should not legislate unless there is good reason.¹³³ The statute book is already complex. On the other hand, inadequate legislative hooks have been partly blamed for the Australian oceans policy not being as effective as it could have been.¹³⁴ A review in Canada also identified the lack of legal force for oceans plans as a reason for them underperforming.¹³⁵ Arguably in that country, the difficulty in making progress with ocean planning resulted from ambiguity in the Oceans Act itself, and the voluntary nature of participation by partners and stakeholders. This suggests that the provisions of the Act could have been more prescriptive.¹³⁶

Another difficulty with making progress in implementing Canada’s Oceans Act was the fact that regulation of significant oceans activities, such as oil and gas exploitation, lay outside the jurisdiction of the Department of Fisheries and Oceans. Combined with the fact that oceans plans do not have regulatory effect, this institutional separation presented a formidable stumbling block when seeking implementation by other government departments. Perhaps the lesson is that an oceans policy or spatial planning does not necessarily need statutory backing, but if it does not have that, it does need a strong institutional champion.

Canada’s experience is not dissimilar to the implementation challenges that our first marine spatial plan in the Hauraki Gulf has faced (see

spotlight below), and which other areas face in even getting a marine spatial planning process off the ground. Other issues identified with the Canadian approach were changes in political priorities (and diversion of funds away from plan implementation), lack of operational guidance for integrated oceans management, and limited action plans to implement the oceans plans, given that they are high-level documents.¹³⁷ Overall, the review found that ocean planning had helped progress the development of an MPA network but had few other outcomes.¹³⁸

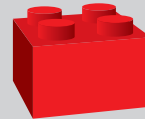
It is possible for marine spatial planning to be undertaken through non-statutory processes, with implementation achieved through formal avenues, following a plan's completion. However, without a statutory framework, such planning remains an ad hoc process that may or may not occur, and which remains outside the formal toolbox for marine management.

Even if a marine spatial planning project is initiated, there is a risk that the plan will not be completed, or will founder at the implementation phase. Non-statutory processes rely on strong political leadership and interest being maintained over multiple years. As demonstrated by the Sea Change Tai Timu Tai Pari project, this can be particularly difficult with Aotearoa New Zealand's three-year election cycle. There is also no clear path for implementation (eg through legal influence on lower level regulatory and funding decisions, or the ability for provisions to take direct effect).

Even with a high level of political interest and commitment to implementation, there are less than ideal procedural issues associated with relying on non-statutory plans. Processes such as iwi/hapū engagement, stakeholder participation, scientific input, and agency consideration of planning provisions would be uncertain (as there would be no legal requirement to undertake them) and would potentially be replicated in a subsequent statutory process to implement the plan. This would be costly in terms of agency resources and may lead to general consultation fatigue. In addition, implementation would occur under multiple pieces of legislation, with different purposes and overseen by different Ministers. As such, there is no guarantee that plan provisions will get implemented as an integrated package.

For a non-statutory plan to be successfully implemented, strong political leadership and interest needs to be present and maintained over multiple years. This is difficult with Aotearoa New Zealand's three-year political cycles.

Non-statutory marine spatial planning processes will usually require a duplication of public processes (eg consultation and hearings under various pieces of legislation). This may result in the plan losing its integration and coherence, as each of these statutory processes is only considering a part of the whole picture.



A statutory framework that both initiates marine spatial planning and provides agencies, mana whenua and stakeholders with guidance on principles and process steps could be provided to help with the implementation of marine spatial planning.



Careys Bay, Dunedin

A spotlight on implementation of Sea Change Tai Timu Tai Pari: A spatial plan without a legislative basis

Implementation of the non-statutory marine spatial plan for the Hauraki Gulf has proved challenging. This was particularly due to the three-yearly electoral cycles and lack of an enduring champion to oversee the implementation of the plan.

A local government election was held just prior to the plan being adopted and several key members of the project steering group (the co-governance body), who were strong advocates for the plan, lost their seats. Once the plan was finalised and publicly released, both the project steering group (which provided administrative oversight) and the stakeholder working group (which developed the plan) were disestablished. After the 2016 local body election, the membership of the Hauraki Gulf Forum changed. Although the Forum had been the initiator of the project, a majority of its members no longer supported implementation of the plan. There was therefore no institutional champion for the plan's implementation as a coherent whole, and no formal process for broader public consultation on its provisions.¹³⁹

Auckland Council did establish a Political Reference Group, which first met in 2017, to provide oversight and guidance for council activities relevant to the plan as well as to integrate with the work programme of other agencies. Both Auckland Council and Waikato Regional Council evaluated the recommendations in the plan, identifying relevant actions and assessing them against current work programmes and budgets. Waikato Regional Council is currently reviewing its regional coastal plan, and this is being informed by the provisions in the Sea Change Tai Timu Tai Pari plan, as will subsequent land and water regional plans.¹⁴⁰

The Department of Conservation and Ministry for Primary Industries delayed any external activity to implement the plan, until after the national election in September 2017, and the confirmation of subsequent ministerial posts. But it was not until July 2019 that the Ministers of Conservation and Fisheries jointly appointed a Ministerial Advisory Committee to “help shape the Government’s response to the Conservation and fisheries proposals” in the plan.¹⁴¹ Officials were tasked with writing the government’s response with advice from the Committee.

A draft response document was completed just prior to the October 2020 general election, after which new Ministers of Conservation and Fisheries were appointed, and had to be brought up to speed. It took until June 2021 for the government to announce its commitment to implement proposals in the plan that are under its jurisdiction,¹⁴² and these have generally been received positively. However, these must still proceed through various avenues under other legislation, such as the Fisheries Act, and this has yet to happen. Because of the inadequacies of the underlying legal frameworks (especially for MPAs), more special legislation for the Gulf is anticipated to implement key elements.¹⁴³ Success still relies on the ongoing commitment of many parties.

As part of the 2000s oceans policy process, the Oceans Secretariat considered different theoretical approaches to dealing with the problem of integration, and the Canadian and Australian experiences of developing oceans policy. It concluded that both a strong legislative basis and a sound planning process were required to deliver the desired outcomes. The fragile nature of the implementation phase of the Sea Change process also suggests that some statutory framing may be useful, and it would be necessary if spatial plans were to have direct regulatory effect or a legally influential relationship with other implementation statutes (eg the RMA, Fisheries Act).

That said, excessive statutory prescription for marine spatial planning or an oceans policy may be counterproductive. In Victoria, a more flexible legislative background is provided in its Marine and Coastal Act 2018. There, a framework has been established, not just for spatial planning, but for a broader oceans policy (see spotlight below).



New Zealand fur seals, Doubtful Sound

Reewyn Peart

A spotlight on the Marine and Coastal Act 2018 (Victoria, Australia)

Victoria's Marine and Coastal Act establishes a tiered system of planning documents comprising a Marine and Coastal Policy, a Marine and Coastal Strategy, and a variety of regional and local plans. The Act also establishes a new Marine and Coastal Council and creates offences and enforcement mechanisms for unauthorised use or development of marine and coastal Crown land.¹⁴⁴

The Act *requires* development of a Marine and Coastal Policy¹⁴⁵ which was published in March 2020. It was developed by the Minister for Energy, Environment and Climate Change and sets out a vision for Victoria's marine area which "is for a healthy, dynamic and biodiverse marine and coastal environment that is valued in its own right, and that benefits the Victorian community, now and in the future".¹⁴⁶ A framework for marine spatial planning is a mandatory element of the policy under the Act, which is to establish "a process for achieving integrated and coordinated planning and management of the marine environment".¹⁴⁷ Victoria's marine environment extends three nautical miles offshore.

Unlike the case in the United Kingdom, the Marine and Coastal Act does not set out a process for developing marine plans; instead it is to be described in the Marine and Coastal Policy. This describes the planning process as "as a continuous, iterative process that will adapt according to new knowledge or needs" as opposed to a process that seeks to create a one-off "master plan". The first step is to determine marine planning areas, and prioritise when marine spatial planning will be undertaken for each, with such planning eventually to be undertaken on a state-wide basis.¹⁴⁸

The Minister is required to authorise a marine spatial planning process before it can commence. As part of the authorisation, the Minister will outline the scope of the process, who must be involved, the body which will coordinate and oversee the planning process and the implementation of its outcomes, and funding mechanisms.¹⁴⁹ This provides considerable flexibility to tailor the configuration of the marine spatial planning process to the particular area concerned. However it sets out some minimum requirements. Traditional Owners must be invited to "participate" in marine spatial planning with the method of participation to be determined by those groups.¹⁵⁰ Draft plans must be released for public comment.

The marine plan is required to "identify when, where, and how the goals and objectives for the planning area will be met", including identifying its scope; a vision, goals and objectives for the planning area; key issues; management approaches to address the key issues and achieve the goals and objectives (with a timeline for implementation); a zoning plan if required; and a monitoring, evaluation and reporting strategy for the plan. In addition, the plan should identify agencies or partners responsible for implementing specific actions within the plan.¹⁵¹

The Marine and Coastal Act enables the establishment of "regional and strategic partnerships" which have as their purpose "to respond to an identified regional issue relating to or affecting the marine and coastal environment" and to prepare a "product".¹⁵² This is a mechanism that the Victorian Government has indicated it may use to oversee the development of a marine spatial plan. The partnerships consist of two or more partner agencies, which can be government or non-government bodies that have an interest in or connection with the marine and coastal environment.¹⁵³ They can be established on direction by the Minister, or following a request to the Minister by the Victorian Marine and Coastal Council (an advisory body established by the Act) or a partner agency. They can only be established with the agreement of each partner agency and approval of the Minister.

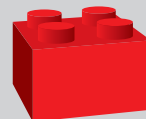
The instrument establishing a Partnership must identify a lead partner agency, the terms of reference, a statement of whether an implementation plan is necessary, and the reporting requirements. The lead agency is responsible for coordinating the preparation and implementation of the "product", in this case the marine spatial plan.¹⁵⁴ The Act also sets out consultation requirements with key stakeholders and the public, and includes a requirement for inviting and considering public submissions. The Minister formally approves the plan and publishes notice of the approval in the government *Gazette*.¹⁵⁵

Marine spatial plans, as products of regional and strategic partnerships, are statutory documents with legal effect under the Marine and Coastal Act. In determining consent applications on marine and coastal Crown land, the Minister must ensure that the consent is "consistent with" a marine spatial plan.¹⁵⁶ Crown land managers must take all reasonable steps to implement marine spatial plans in respect of the land managed on behalf of the

Crown.¹⁵⁷ However, there is no legal mechanism to achieve recognition or implementation of the plan by agencies operating under other statutes such as fisheries legislation.

The Victorian government has yet to embark on a marine spatial planning exercise under the new legislation and policy. The Department is currently undertaking a state-wide assessment of Victoria's marine environment to identify priority areas for marine spatial planning. It is developing guidelines which will provide instructions on how to undertake a planning process in a specific planning area. Following this, the Victorian government plans to scope and initiate the first marine spatial planning process in a priority area.¹⁵⁸

The Victorian government has adopted a flexible approach to marine spatial planning, providing a very broad structure for it within the legislation, and requiring a framework to be provided within a ministerially approved policy document. This enables more flexibility and learning by doing, where the framework can be regularly adjusted and updated as required. The policy is being implemented in a stepwise fashion, with priority areas being established first, before the first planning process is initiated. This makes sense and would be applicable to the Aotearoa New Zealand situation, where the process could be tailored to the regional context.



Marine spatial planning could have a broad and flexible legislative framing, allowing change and innovation to occur as practice and experience evolves.



Credit

Melbourne, Victoria

10.9 Concluding comments

In this chapter we have considered what we have called “strategic” and “integrative” tools. A future system could see existing tools become more future focused, or being used in a more strategic way, to drive change in the marine space. That could involve reimagining the purposes and principles of core legislation to be more about taking steps towards a different future than static management and protection. New tools could assist here, such as binding targets (and the accountability frameworks that could make them more robust, as we have for climate change) and mandatory and legally influential strategies (eg for the deployment of MPAs, or formalising the place of *Te mana o te taiao – the Aotearoa New Zealand biodiversity strategy 2020*). Of course, what that future should *be* is debatable (see Chapter 7). However, the point here is that a system could be oriented quite differently to pursue positive change of some kind. The RMA is already getting a strategic makeover, and changing tools under the Fisheries Act and Marine Reserves Act, could open up a world of other opportunities.

No matter how future focused a tool is, it does not exist in a silo. The system needs a mechanism by which tools are deployed, both in a

strategic (eg proactively rolling out AMAs or MPAs) and *coordinated* (eg considering where those things, and others, go relative to *each other*) way. Coordination needs to occur across both space and time, and within the context of achieving compatible goals.

Some better integration of tools might be possible without too much upheaval, such as by better aligning the purposes of legislation, through creating cross-references or allowing one tool (eg the NZCPS) to influence another (eg fisheries plans). But integrative tools like marine spatial planning and an oceans policy have potential to provide stronger glue in what has become a fragmented system; one that does not reflect the interconnectedness of either the marine environment or the problems facing it.

More broadly, policy makers should think carefully about what the toolkit is there for. Is it a set of discretionary interventions that can be used by authorities when the urge strikes them or where politics makes it convenient? Or does it comprise measures that *need* to be proactively and strategically deployed in a coordinated manner, as a matter of law, to achieve clear statutory outcomes?

Raewyn Peart

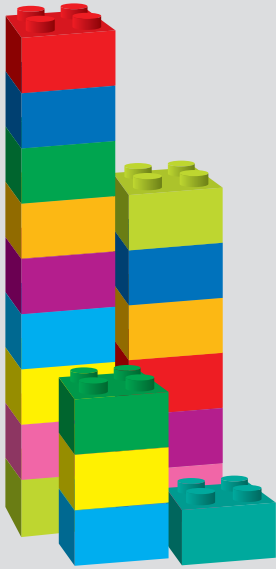


Ocean Beach, Hastings



Summary of options for reform: Strategic and integrative tools

- A future system could be made more strategic by recasting the purposes and principles of legislation to ones that drive towards a different future, rather than maintaining or protecting things or seeking static outcomes (eg wellbeing or sustainability).
- Mandatory targets could be used more systemically across a future system to drive positive change. Accountability mechanisms could be established around them to measure progress. Binding targets could cover many things, but may be particularly useful to return to a safe ecological space if limits have already been infringed.
- A future system could establish a more comprehensive range of trigger points that result in automatic or immediate management measures being taken. Here, the system would be more proactive in preparing for the future, providing greater agility when things change.
- Monitoring and reporting in a future system could be linked to obligations to conduct futures scanning exercises, to ensure that problems, opportunities and changes are pre-empted rather than leaving gaps in policy and regulatory frameworks to develop.
- Tools could be better coordinated in a future system by extending the responsibilities of institutions. If one institution has responsibilities for deploying (or engaging with) multiple tools, then they may be used in a more integrated way.
- There are a number of ways that connections could be improved between legislative frameworks, such as through cross-referencing, alignment of processes and the insertion of common principles.
- Strategies in a future system could be made mandatory (guided by revised and carefully crafted statutory purposes) and have strong legal effect on the tools needed to realise their objectives.
- An environmental research strategy, containing a specific part on marine research and information, could be made mandatory and have legal influence over how integrated research is created, funded and deployed to achieve clearer cross-cutting objectives for the marine environment. The strategy could provide for large “one-off” exercises such as a national coastal habitat mapping project.
- An Environmental Research Council or another independent agency such as an Oceans/Tikanga Commission could oversee the marine research and information system.
- An Environmental Research Council or another independent agency such as an Oceans/Tikanga Commission could oversee the marine research and information system.
- Funding for environmental research (or even marine components of it) could be ringfenced/hypothecated using revenue from tools like resource rentals.



Summary of options for reform: Strategic and integrative tools *(continued)*

- A future system could provide for the mandatory creation of marine spatial plans to integrate or coordinate the use of other tools (regulatory and non-regulatory) in a particular place.
- Marine spatial plans could include environmental bottom lines, targets and outcomes for the marine area. They could be strategic only, and rely on implementation through other frameworks. Alternatively, they could include regulatory provisions themselves as an alternative pathway for things like environmental limits and MPAs.
- Marine spatial plans could be targeted to areas where there are particular issues or conflicts or they could cover all the country's marine areas. There could be specific trigger points specified for when a planning process was deemed necessary.
- A Marine Spatial Planning Strategy, developed by the Minister of Oceans, could provide a policy framework for marine spatial planning and set out a programme for developing marine spatial plans in targeted areas.
- A national level Oceans Policy could be a strategic instrument, going far beyond just an action plan for rolling out marine spatial plans. It could, with sufficient framing, be a form of "constitution" for the oceans.
- A statutory framework that both initiates marine spatial planning and provides agencies, mana whenua and stakeholders with guidance on principles and process steps could be provided to help with the implementation of marine spatial planning.
- Marine spatial planning could have a broad and flexible legislative framing, allowing change and innovation to occur as practice and experience evolves.



Kaikōura coast

Endnotes

- 1 Ministry for the Environment *Natural and Built Environments Bill: Parliamentary Paper on the Exposure Draft* (June 2021), cl 8.
- 2 Again, that resembles the more robust accountability mechanisms that now exist for climate change.
- 3 See Resource Management Review Panel *New Directions for Resource Management in New Zealand* (June 2020). There have been signals more recently that mandatory targets of some form may still be included in the legislation as per the Panel's recommendations.
- 4 Extending the reach of the Wildlife Act 1953. At present, the RMA and NZCPS are focused on avoiding harm.
- 5 Department of Conservation *Te Mana o Te Taiao - Aotearoa New Zealand Biodiversity Strategy 2020* (Department of Conservation, Wellington, August 2020).
- 6 The Guide moves beyond a single end goal – such as 30 percent marine protection by 2030 – instead focusing on progress. Its four stages of MPAs are: proposed/committed; designated; implemented; and actively managed. This recognises that that it may take years between an announcement to create an MPA to the time when in situ protection and management occurs, yet it is all part of the same process. The *levels* of protection are evaluated with reference to the biodiversity outcomes that different activities at different scales are expected to produce. Impact is determined by activity type, intensity, scale, duration and frequency relative to biodiversity conservation goals and is described as “none”, “low”, “moderate”, “high/large” or “incompatible with biodiversity conservation”. A future system could take a similarly nuanced approach to setting staged targets and measuring progress.
- 7 Oceans Act SC 1996 c 31, s 35(2).
- 8 For example, orcas, Right whales, bottlenose whales, belugas, leatherback turtles, abalone and seals.
- 9 See Raewyn Peart *Farming the sea* (Environmental Defence Society, Auckland, 2019).
- 10 That is conceptually similar to what is planned to happen with agricultural emissions, which will be subject to a pricing framework (within or alongside the ETS) if other measures are not achieved by a certain date.
- 11 See Jamie Morton “Back to the future: has NZ stopped looking ahead?” *The New Zealand Herald* (online ed, 13 November 2016) <https://www.nzherald.co.nz/back-to-the-future-has-nz-stopped-looking-ahead/OW2X4VIAMG6YWWWTWDWRJYC6QM/V_c_id=1&objectid=11745529>
- 12 See Well-being of Future Generations (Wales) Act 2015, s 4.
- 13 On the importance of locating current environmental challenges within anticipated future scenarios, see Parliamentary Commissioner for the Environment *The state of New Zealand's environment: Commentary by the Parliamentary Commissioner for the Environment on 'Environment Aotearoa 2015'* (June 2016) at 45.
- 14 See the spotlight on the *Motiti* decision in Chapter 11. We look at the risks of broadly focused institutions in Chapter 12.
- 15 Magnuson-Stevens Fishery Conservation and Management Act 16 USC §§ 1801-1891d
- 16 See Chapter 8 of the project's working paper on the institutional changes that have characterised fisheries management over recent times.
- 17 Which have not yet been created, although one is signalled to implement the Sea Change Tai Timu Tai Pari “Hauraki Gulf Marine Spatial Plan”.
- 18 Although this has not been without its issues – see Greg Severinsen *Reform of the Resource Management System: The urban context* (Environmental Defence Society, Auckland, August 2020).
- 19 Office of the Prime Minister's Chief Science Advisor *The Future of Commercial Fishing in Aotearoa New Zealand* (February 2021) at 18.
- 20 Under the Convention on Biological Diversity – see Chapter 3.
- 21 Parliamentary Commissioner for the Environment *A review of the funding and prioritisation of environmental research in New Zealand* (December 2020) at 35, 45 and following.
- 22 See Department of Conservation *The New Zealand Biodiversity Strategy* (Department of Conservation, Wellington, February 2000). Note this has been superseded by Department of Conservation *Te Mana o Te Taiao - Aotearoa New Zealand Biodiversity Strategy* (Department of Conservation, Wellington, August 2020).
- 23 At 67. For further background on the development and implementation of marine protection and MPA policy in Aotearoa New Zealand, see Kate Mulcahy, Raewyn Peart and Abbie Bull *Safeguarding our Oceans: Strengthening Marine Protection in New Zealand* (Environmental Defence Society, Auckland, 2012).
- 24 Department of Conservation *The New Zealand Biodiversity Strategy* (Department of Conservation, Wellington, February 2000) at 67.
- 25 Kate Mulcahy, Raewyn Peart and Abbie Bull *Safeguarding our Oceans: Strengthening Marine Protection in New Zealand* (Environmental Defence Society, Auckland, 2012) at 134.
- 26 Department of Conservation and Ministry of Fisheries *Marine Protected Areas Policy and Implementation Plan* (Department of Conservation and Fisheries New Zealand, Wellington, 2005); Department of Conservation and Ministry of Fisheries *Marine Protected Areas: Classification, Protection Standard and Implementation Guidelines* (Department of Conservation and Fisheries New Zealand, Wellington, 2008).
- 27 At 3.
- 28 At 3.
- 29 At 6.
- 30 Kate Mulcahy, Raewyn Peart and Abbie Bull *Safeguarding our Oceans: Strengthening marine protection in New Zealand* (EDS, Auckland, 2012).
- 31 Department of Conservation *Te Mana o Te Taiao – Aotearoa New Zealand biodiversity Strategy 2020* (Department of Conservation, Wellington, August 2020) at 53-54: see objectives 10.3.3-10.5.3; objectives 10.6.1-10.6.3; and objectives 12.1.1-12.7.3.
- 32 Such as in statutory emissions reduction plans and in future urban development strategies required under the NPS on Urban Development.
- 33 See Greg Severinsen and Raewyn Peart *The Strategic Planning Act and Funding* (Environmental Defence Society, September 2021) available at <https://eds.org.nz/wp-content/uploads/2021/11/8.-The-Strategic-Planning-Act-and-Funding-FINAL.pdf>.
- 34 See generally Kate Mulcahy, Raewyn Peart and Abbie Bull *Safeguarding our Oceans: Strengthening marine protection in New Zealand* (EDS, Auckland, 2012) from 178.
- 35 Kate Mulcahy, Raewyn Peart and Abbie Bull *Safeguarding our Oceans: Strengthening Marine Protection in New Zealand* (EDS, 2012) at 178.
- 36 Kate Mulcahy, Raewyn Peart and Abbie Bull *Safeguarding our Oceans: Strengthening Marine Protection in New Zealand* (EDS, 2012) at 178.
- 37 Kate Mulcahy, Raewyn Peart and Abbie Bull *Safeguarding our Oceans: Strengthening Marine Protection in New Zealand* (EDS, 2012) at 186.
- 38 Kate Mulcahy, Raewyn Peart and Abbie Bull *Safeguarding our Oceans: Strengthening Marine Protection in New Zealand* (EDS, 2012) at 180.
- 39 A Kate Mulcahy, Raewyn Peart and Abbie Bull *Safeguarding our Oceans: Strengthening Marine Protection in New Zealand* (EDS, 2012) at 181; Marine Life Protection Act FGC § 2853(b).
- 40 Kate Mulcahy, Raewyn Peart and Abbie Bull *Safeguarding our Oceans: Strengthening Marine Protection in New Zealand* (EDS, 2012) at 182.
- 41 Kate Mulcahy, Raewyn Peart and Abbie Bull *Safeguarding our Oceans: Strengthening Marine Protection in New Zealand* (EDS, 2012) at 182.
- 42 Kate Mulcahy, Raewyn Peart and Abbie Bull *Safeguarding our Oceans: Strengthening Marine Protection in New Zealand* (EDS, 2012) at 189.
- 43 Kate Mulcahy, Raewyn Peart and Abbie Bull *Safeguarding our Oceans: Strengthening Marine Protection in New Zealand* (EDS, 2012) at 188-189.
- 44 Emily Saarman and others “The role of science in supporting marine protected area network planning and design in California” (2013) 74 *Ocean and Coastal Management* 45.
- 45 Kate Mulcahy, Raewyn Peart and Abbie Bull *Safeguarding our Oceans: Strengthening Marine Protection in New Zealand* (EDS, 2012) at 182.
- 46 Kate Mulcahy, Raewyn Peart and Abbie Bull *Safeguarding our Oceans: Strengthening Marine Protection in New Zealand* (EDS, 2012) at 182.
- 47 Kate Mulcahy, Raewyn Peart and Abbie Bull *Safeguarding our Oceans: Strengthening Marine Protection in New Zealand* (EDS, 2012) at 183; Marine Life Protection Act FGC § 2857(c).
- 48 California Department of Fish and Wildlife “Regional MPA Statistics” <<https://wildlife.ca.gov/Conservation/Marine/MPAs/Statistics>>
- 49 Scripps Institution of Oceanography “Research highlight: Early results suggest California marine protected areas are a success” (5 September 2019) University of California <<https://scripps.ucsd.edu/news/research-highlight-early-results-suggest-california-marine-protected-areas-are-success>>
- 50 California Department of Fish and Wildlife “MPA Decadal Management Review” <<https://wildlife.ca.gov/Conservation/Marine/MPAs/Management/Decadal-Review>>
- 51 Parliamentary Commissioner for the Environment *A review of the funding and prioritisation of environmental research in New Zealand* (Office of the Parliamentary Commissioner for the Environment, Wellington, December 2020).
- 52 Parliamentary Commissioner for the Environment *A review of the funding and prioritisation of environmental research in New Zealand* (Office of the Parliamentary Commissioner for the

- Environment, Wellington, December 2020) at 64.
- 53 Noting that intellectual property concerns would need to be worked through when it comes to how mātauranga is presented and shared.
- 54 Prime Minister's Chief Science Advisor *The future of commercial fishing in Aotearoa New Zealand* (February 2021).
- 55 Prime Minister's Chief Science Advisor *The future of commercial fishing in Aotearoa New Zealand* (February 2021) at 2.
- 56 Prime Minister's Chief Science Advisor *The future of commercial fishing in Aotearoa New Zealand* (February 2021) at 3.
- 57 Prime Minister's Chief Science Advisor *The future of commercial fishing in Aotearoa New Zealand* (February 2021) at 23, 26.
- 58 UNESCO "MSP around the world" MSPglobal <<https://www.mspglobal2030.org/msp-roadmap/msp-around-the-world/>>
- 59 Directive 2014/89/EU of the European Parliament and of the Council of 23 July 2014 establishing a framework for maritime spatial planning [2014] OJ L257/135.
- 60 For a history of the development of marine spatial planning worldwide, including in-depth case studies, see Raewyn Peart *Turning the Tide: Integrated marine planning in New Zealand* (Environmental Defence Society, Auckland, 2018), ch 3 and Hauraki Gulf Forum *Spatial Planning for the Gulf: An international review of marine spatial planning initiatives and application to the Hauraki Gulf* (Hauraki Gulf Forum, Auckland, 2011).
- 61 Charles Ehler and Fanny Douvere *Marine spatial planning: A step-by-step approach toward ecosystem-based management* (UNESCO, Paris, 2009) at 18.
- 62 Directive 2014/89/EU of the European Parliament and of the Council of 23 July 2014 establishing a framework for maritime spatial planning [2014] OJ L257/135, art 3(2).
- 63 Melissa Foley and others "Guiding ecological principles for marine spatial planning" (2010) 34(5) *Marine Policy* 955.
- 64 Kelsey Serjeant and Raewyn Peart *Healthy Seas: Implementing marine spatial planning in New Zealand* (Environmental Defence Society, Auckland, 2019) at 4.
- 65 Hauraki Gulf Forum *State of our Gulf 2011* (Hauraki Gulf Forum, Auckland, August 2011) at 13.
- 66 Hauraki Gulf Forum *Spatial planning for the Gulf: An international review of marine spatial planning initiatives and application to the Hauraki Gulf* (Hauraki Gulf Forum, Auckland, 2011) at 40.
- 67 Sea Change Tai Timu Tai Pari *Stakeholder Working Group: Terms of reference* (Auckland Council, 2013) at 2-4, as cited in Environment Guide "Case study: Sea Change" (9 February 2018) <<https://www.environmentguide.org.nz/issues/marine/marine-spatial-planning/case-study-sea-change/>>
- 68 Seachange Stakeholder Working Group *Sea Change Tai Timu Tai Pari Hauraki Gulf Marine Spatial Plan* (Hauraki Gulf Forum in partnership with others, April 2017)
- 69 A copy of the plan and background documents can be accessed at <www.seachange.org.nz>
- 70 Auditor-General *Sea Change – Tai Timu Tai Pari: Creating a marine spatial plan for the Hauraki Gulf* (Office of the Auditor General, B.29[180], December 2018). This review found that in the working group, some interests were better represented than others; there was a lack of formal consultation on the proposals; and the 2017 Plan was not easily to implement for central and local government agencies. It needed more agency involvement, discussion with stakeholders, and communication with the public.
- 71 Department of Conservation, Fisheries New Zealand and Ministry for Primary Industries *Revitalising the Gulf: Government Action on the Sea Change Plan* (June 2021).
- 72 Elizabeth Macpherson and others "Hooks" and 'Anchors' for Relational Ecosystem-Based Marine Management" (2021) 130 *Marine Policy* 104561.
- 73 Elizabeth Macpherson and others "Hooks" and 'Anchors' for Relational Ecosystem-Based Marine Management" (2021) 130 *Marine Policy* 104561.
- 74 Intergovernmental Oceanographic Commission and Directorate General for Fisheries and Maritime Affairs *MSPglobal International Guide on Marine/Maritime Spatial Planning* (IOC-UNESCO, IOC/2021/MG/89, 2021) at 34.
- 75 See Mulcahy, Peart and Bull, above n 24, at 124-125.
- 76 Resource Management Review Panel *New Directions for Resource Management in New Zealand* (June 2020) at 144.
- 77 Kelsey Serjeant and Raewyn Peart *Healthy Seas: Implementing marine spatial planning in New Zealand* (Environmental Defence Society, Auckland, 2019) at 53.
- 78 Resource Management Review Panel *New Directions for Resource Management in New Zealand* (June 2020), 134-135.
- 79 Raewyn Peart and Brooke Cox *Governance of the Hauraki Gulf: A review of options* (Environmental Defence Society, Auckland, 2019) at 8.
- 80 Raewyn Peart *Turning the tide: Integrated marine planning in New Zealand* (Environmental Defence Society, Auckland, November 2018) at 36.
- 81 Ministry for the Environment *Natural and Built Environments Bill - Parliamentary Paper on the Exposure Draft* (June 2021) at [49].
- 82 Anne-Michelle Slater and Jim Claydon "Marine spatial planning in the UK: A review of the progress and effectiveness of the plans and their policies" (2020) 22(2) *Environmental Law Review* 85 at 86.
- 83 See Marine and Coastal Access Act 2009 (UK), pt 3.
- 84 Marine and Coastal Access Act 2009 (UK), s 44(1).
- 85 HM Government *UK Marine Policy Statement* (2011) at 10.
- 86 At 11.
- 87 At 7.
- 88 Marine and Coastal Access Act 2009 (UK), s 51(2).
- 89 Sections 51(3) and (5).
- 90 HM Government *UK Marine Policy Statement* (2011) at 10.
- 91 At 12.
- 92 Marine and Coastal Access Act 2009 (UK), s 55.
- 93 Scottish Government "Marine Planning Partnerships: Clyde and Shetland Isles" (5 December 2018) <<https://www.gov.scot/publications/marine-planning-partnerships-clyde-and-shetland-isles/>>.
- 94 See for example the membership of the Clyde Marine Planning Partnership: Clyde Planning Partnership "About the Clyde Marine Planning Partnership" <<https://www.clydemarineplan.scot/about-us/about-the-clyde-marine-planning-partnership/#membership>>.
- 95 Marine and Coastal Access Act 2009 (UK), sch 6, cl 1(1).
- 96 Schedule 6, cl 5(3).
- 97 Clause 5(5).
- 98 Clause 6.
- 99 Clause 7.
- 100 Clause 11.
- 101 Clause 10.
- 102 Clause 12.
- 103 Clause 13.
- 104 Clause 13.
- 105 Section 55.
- 106 Section 58.
- 107 Schedule 6, cl 58(2).
- 108 Section 61.
- 109 Anne-Michelle Slater and Jim Claydon "Marine spatial planning in the UK: A review of the progress and effectiveness of the plans and their policies" (2020) 22(2) *Environmental Law Review* 85 at 89.
- 110 Anne-Michelle Slater and Jim Claydon "Marine spatial planning in the UK: A review of the progress and effectiveness of the plans and their policies" (2020) 22(2) *Environmental Law Review* 85.
- 111 Lucy Greenhill, Tim Stojanovic and Paul Tett "Does marine planning enable progress towards adaptive governance in marine systems? Lessons from Scotland's regional marine planning process (2020) 19(5) *Maritime Studies* 299 at 306.
- 112 Raewyn Peart *Turning the tide: Integrated marine planning in New Zealand* (Environmental Defence Society, Auckland, 2018) at 23.
- 113 Compare Office of the Prime Minister's Chief Science Advisor *The Future of Commercial Fishing in Aotearoa New Zealand* (February 2021).
- 114 See Minister for Oceans and Fisheries "Oceans and Fisheries portfolio – ensuring healthy ocean ecosystems" (2 July 2021).
- 115 For example, rainwater tanks that mitigate the need for alternative sources like desalination which could have consequential impacts on the marine environment.
- 116 Ministerial Advisory Committee on Oceans Policy *Healthy sea, healthy society: Towards an Oceans Policy for New Zealand* (Oceans Policy Secretariat, 30 September 2001) at 3.
- 117 Karen Scott "Does Aotearoa New Zealand Need an Oceans Policy for Modern Oceans Governance?" (2021) 35 *Ocean Yearbook*.
- 118 Such elements, with supporting institutions, could be given formal recognition in an Oceans

- Act, says Scott: at 38 and following. On an Oceans Act, see Chapter 6.
- 119 Karen Scott "Does Aotearoa New Zealand need an oceans policy for modern oceans governance?" (2021) 35 *Ocean Yearbook* at 38-43.
- 120 At 26-29.
- 121 Prime Minister's Chief Science Advisor *The future of commercial fishing in Aotearoa New Zealand* (February 2021) at 17.
- 122 At 17.
- 123 Elizabeth Macpherson and others "'Hooks' and 'Anchors' for Relational Ecosystem-Based Marine Management" (2021) 130 *Marine Policy* 104561.
- 124 Office of the Prime Minister's Chief Science Advisor *The Future of Commercial Fishing in Aotearoa New Zealand* (February 2021).
- 125 Raewyn Peart *Looking out to sea: New Zealand as a model for oceans governance* (Environmental Defence Society, Auckland, 2005) at 149-151.
- 126 At 150-152.
- 127 Elizabeth Macpherson and others "'Hooks' and 'Anchors' for Relational Ecosystem-Based Marine Management" (2021) 130 *Marine Policy* 104561.
- 128 Government of Canada *Canada's Oceans Strategy: Our Oceans, Our Future* (Fisheries and Oceans Canada, Ontario, 2002).
- 129 Government of Canada *Canada's Oceans Action Plan: For Present and Future Generations* (Fisheries and Oceans Canada, Ontario, 2005).
- 130 Sabine Jessen "A review of Canada's implementation of the Oceans Act since 1997 – from leader to follower?" (2011) 39(1) *Coastal Management* 20 at 24-28.
- 131 Megan Bailey and others "Canada at a crossroad: The imperative for realigning ocean policy with ocean science" (2016) 63 *Marine Policy* 53.
- 132 Through mechanisms in Canada's Oceans Act see Oceans Act SC 1996 c 31.
- 133 Legislative Design and Advisory Committee *Legislation guidelines: 2018 edition* (March 2018) at 7. Compare Geoffrey Palmer "Law-making in New Zealand: Is there a better way?" (2014) 22 *Waikato LR* 1.
- 134 See Elizabeth Macpherson and others "'Hooks' and 'Anchors' for Relational Ecosystem-Based Marine Management" (2021) 130 *Marine Policy* 104561.
- 135 Fisheries and Oceans Canada *Final evaluation report: Evaluation of the Ocean Management Program* (online ed, 17 January 2018). See generally Megan Bailey and others, "Canada at a crossroad: The imperative for realigning ocean policy with ocean science" (2016) 63 *Marine Policy* 53.
- 136 Similar to the Auckland Plan, which is a statutory document but has weak links to regulatory frameworks.
- 137 Fisheries and Oceans Canada *Final evaluation report: Evaluation of the Ocean Management Program* (online ed, 17 January 2018).
- 138 Fisheries and Oceans Canada *Final evaluation report: Evaluation of the Ocean Management Program* (online ed, 17 January 2018).
- 139 Raewyn Peart *Turning the tide: Integrated marine planning in New Zealand* (Environmental Defence Society, Auckland, 2018) at 28.
- 140 See Waikato Regional Council "Coastal policies and plans: Revitalising the Gulf" <<https://www.waikatoregion.govt.nz/council/policy-and-plans/coastal-policy/>>
- 141 Stuart Nash and Eugenie Sage "New Ministerial committee established to progress Hauraki Gulf marine plan" (media release, 2 July 2019) <<https://www.beehive.govt.nz/release/international-report-card-new-zealand%E2%80%99s-indigenous-nature-%E2%80%93-we-must-do-better>>
- 142 Department of Conservation, Fisheries New Zealand and Ministry for Primary Industries *Revitalising the Gulf: Government Action on the Sea Change Plan* (June 2021).
- 143 Minister for Oceans and Fisheries "Revitalising the Hauraki Gulf – Government Sea Change Strategy" (2 July 2021).
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- 145 Section 24.
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- 149 At 74.
- 150 At 76.
- 151 At 76.
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11 Legislative design



Parengarenga harbour

11.1 Introduction

It will be important to provide for a more integrated toolkit in a future system. Marine spatial plans and an overarching Oceans Policy provide potential ways forward. But in a first principles rethink, there is an opportunity to improve integration through deeper means, by restructuring our statutes. That could involve refining the boundaries between existing statutes, integrating them together, or splitting them along completely different lines. For example, it might be possible for a tool like marine spatial planning, discussed in Chapter 10, to be provided for within the RMA/NBA (eg through a regional policy statement), the proposed Strategic Planning Act (through regional spatial strategies), new MPA legislation, or a new, integrated Oceans Act. Fisheries tools like sustainability measures do not necessarily require a Fisheries Act. Nor do MPAs require an MPA Act.

In this chapter we consider why legislative design matters, how statutes could be layered quite differently to the status quo if we look through different “lenses”, and what that means when it comes to options for the future. We conclude by looking at what a radically different approach might look like – an Oceans Act. Overall, we are encouraged by the general direction in the Legislation Act 2012 to facilitate “the progressive and systematic revision of the New Zealand statute book so that . . . it is arranged more logically”.¹ The extensive fragmentation of the current oceans management system means it is a particularly good candidate for thinking about such things.

11.2 Why legislative design matters

It is by no means obvious what legislative arrangements would be “best”. It is not even clear whether what we have now is fundamentally broken. Most of the statutes we have at the moment could probably be justified in some way (for instance, the EEZ Act is a simpler framework than the RMA and responds to its different international legal framing)² and splitting them up differently risks replacing one issue with another.

Much may depend on whether our current approach is actually responsible for the biophysical and systemic problems discussed in Chapters 2 and 3. Even if it is, mechanisms other than legislative redesign (eg changes to the toolkit such as introducing marine spatial planning, or institutional measures such as providing for stronger oversight by an Oceans Ministry or Commission)³ might be equally or more effective at addressing problems with potentially less disruption. Some may see problems in the system as the product of poor implementation (eg a lack of political will to use tools like national direction, some sustainability measures and section 33 transfer of powers) or resourcing rather than the basic structure of our laws.

Others have suggested that fundamental legislative rearrangement does not get to the core of the issues we face, and more often is used as a way for policy makers to show something is being done. There is some truth here, in that:⁴

New Zealanders tend to exhibit an innocent and misplaced faith in the efficacy of legislation. We seem to be addicted to passing legislation for the sake of it. We seem to believe it will solve our innermost ills. The government must be seen to be acting or reacting. Passing a law is seen to be doing something.

Indeed, filling gaps like the lack of marine reserves in the EEZ, improving processes like planning under the RMA, and modernising the values underpinning legislation like the Wildlife Act would not necessarily require changes to statutory boundaries. Change could be driven through a series of targeted amendments or even, in some cases, subordinate instruments or non-statutory mechanisms. It would be reasonably straightforward, for example, to extend the application of the Marine Reserves Act to the EEZ, to change the purpose in the Wildlife Act, or to make the creation of an EEZ policy statement mandatory.

However, broader legislative boundaries do matter. Arguably many issues with the system stem from, or are exacerbated by, the manner in which we have designed them – where lines are drawn, what falls between the cracks, and how statutes interact with each other. If anything, the marine context has seen more carve-outs and workarounds than on land.⁵ In particular, the process of rationalising the management of different domains and sectors into one Act on land (in the RMA) never really occurred at sea (see Chapter 4).



Whale stranding, Coopers Beach

Raewyn Peart

Even with integrative tools like marine spatial planning, there are serious questions about whether this “glue” will be strong enough to give the overall system coherence and integration. Intra-statutory connections still tend to be tighter than those between statutes. A single act has a unifying purpose, processes that are designed to talk to each other, hierarchies between instruments that tend to be clearer, and (usually) a single agency responsible for oversight. In contrast, separate statutes can have conflicting purposes and different administering agencies. This can lead to regulatory impasses.

Fragmentation also risks processes that are disconnected. For example, sustainability measures under the Fisheries Act, plan reviews under the RMA, and the creation of protected areas under the Marine Reserves Act are seldom thought about in the same breath. Separation can produce conflicts that are either ignored or require litigation (eg to clarify the respective roles of the RMA and Fisheries Act in habitat protection). All these things are exacerbated when new statutes must interact with very old ones, and where the values underpinning them are either unclear or differ markedly.

The more statutes we have, the more interfaces are needed. This can create uncertainty, inefficiency and complexity. The words of the then Parliamentary Commissioner for the Environment two decades ago, are even more valid today, given the creation of yet more statutes, agencies and strategies since that time:⁶

we have an extraordinary plethora of legislation and agencies with marine responsibilities. There are 18 main statutes, 14 agencies and six government strategies for marine management. We have also signed up to at least 13 international conventions with marine implications. Inevitably there are gaps, overlaps and inefficiencies.

This does not necessarily make a single integrated statute the best option. But it suggests we should avoid having dozens of different statutes and creating new ones whenever a new intervention is needed. A single statute is also generally amended in a way that retains the coherence of the whole, whereas connections with others can be ignored or considered less closely. This can lead to frameworks growing apart over time, which is particularly noticeable with conservation laws that have been layered over many decades. Reforms to one statute might even leave a related one languishing in the values and assumptions of previous centuries. If the Marine Reserves Act had formed part of the reforms in 1991, it is highly doubtful that it would have the limited purpose it has today. The case of the Bryde’s whale shows how legislative design can matter in practice.

A spotlight on the Bryde’s whale: Why legislative fragmentation can matter

Bryde’s whales are nationally critically threatened. The Hauraki Gulf is favoured habitat for the whales, with up to 50 Bryde’s whales regularly using the Gulf at any one time, out of a larger national population of around 150. The Hauraki Gulf is also the location of the country’s busiest port (at Auckland). Geographically, the Bryde’s whales and commercial vessel traffic occupy overlapping water space. As a result of the spatial conflict, at least 17 whales have been killed by ship strike (with an historic average of around two deaths per year).⁷

In 2010, when the issue was publicised by scientists studying the whales, many of the ships coming and going from the Hauraki Gulf were travelling at well over 14 knots. International research indicated that there was a high chance of a whale dying if hit by a vessel travelling at that speed. But if the vessel’s speed was under 10 knots, an impacted whale had a good chance of surviving. For this reason, researchers concluded that vessels transiting the Hauraki Gulf needed to slow down (to 10 knots or less) in order to reduce the risk to the whales to an acceptable level, whilst maintaining safe ship navigation.⁸ It would seem a remarkably simple solution.

However, at least four potential mechanisms can be used to reduce vessel speed to protect whales, under existing legislation. The first is for the Minister of Conservation to create a marine mammal sanctuary under the Marine Mammals Protection Act with regulations setting a maximum speed within it. The second is for Auckland Council to change the coastal component of the Unitary Plan, under the RMA, to incorporate a new rule that makes operating a ship at speeds greater than 10 knots within the Hauraki Gulf a prohibited activity. Given Policy 11 of the NZCPS, which requires the *avoidance* of adverse effects on threatened species, there may well be a duty on the Council to act in this way. The third is for the Minister of Transport to recommend the creation of a Maritime Rule by Order-in-Council under the Maritime Transport Act to restrict ship speed in the Hauraki Gulf. The fourth potential mechanism is to present a proposal to the International Maritime Organization for a ship routing measure which could be voluntary or mandatory.

The advantage of such an international measure, is that the restriction would be noted on the relevant nautical charts, and would thereby be brought to the notice of overseas vessels entering the country.

This plethora of potential tools vividly illustrates the overlaps that exist between legislation. The targeted purpose of one Act – in this case, one would naturally gravitate towards the Marine Mammals Protection Act which has a protective purpose for the species in question – can in practice be achieved through tools provided under quite different legislation. This is not necessarily a bad thing, as it can be useful to have several regulatory tools in the toolbox when seeking to address an issue. However, overlap can lead to paralysis, because no agency is obviously in charge of addressing the issue. Agencies are often risk averse and would prefer, if possible, to leave politically contentious issues to someone else.

In the Bryde's whale example, none of the agencies with regulatory tools at their disposal took action to solve the issue. In this regulatory vacuum, fortunately a consortium of Auckland University scientists, the Hauraki Gulf Forum and EDS initiated a collaborative process which resulted in a voluntary agreement to reduce ship speed.⁹ This has undoubtedly saved many whale lives. Yet the underlying problem with the system remains.

While overlapping statutes can be a conscious design choice (two different statutes may deal with the same issue from different standpoints or using different tools, while overlapping spatially or in subject matter),¹⁰ they can, ironically, create gaps by giving a sense of complacency where a solution is assumed to belong elsewhere.

The Bryde's whale is not an isolated example. It is characteristic of the system as a whole, which is split in ways that do not take an ecosystem approach to marine habitats or species. The most obvious example is the protection of marine habitats that are important to both fisheries and the broader biodiversity of the environment. This is dealt with under the RMA (and potentially EEZ Act), the Fisheries Act and the Marine Reserves Act. As explored later in this chapter, the relationship between the former two acts has recently been the subject of significant jurisprudence from the Court of Appeal, which concluded that regional councils retain substantial jurisdiction to regulate the impacts of fishing in the coastal marine area.¹¹

Yet it is a jurisdiction that has not really been exercised. Nor have habitat protection powers under the Fisheries Act been fully utilised, meaning that neither framework has been used to its full potential. Things fall between the cracks, and much remains unclear.

Overlaps between legislation can also cause complexity and multiple points of potential failure, where tools need to be used carefully in tandem to make a difference. This requires cooperation and joint processes that are not always easy to achieve under separate statutes. Difficulties in deploying large-scale MPA networks can be put down partly to the perception that they are just about the removal of existing “rights” rather than a broader discussion about what goes where. An MPA Strategy and marine spatial planning could assist (see Chapter 10) but we note that the root cause is we have separate statutes doing quite separate things.

This is very visible in the Hauraki Gulf, where the need for coordinated action across many frameworks and institutions (eg those addressing sedimentation, MPAs, fishing controls, Māori interests, ecological enhancement activities and other things) has resulted in a long non-statutory spatial planning process driven partly outside government. This has been followed by a protracted period of government consideration, before any marine protection tool is actually deployed in its service. Indeed, the waiting game continues at the time of writing.



Mussels, Ōtata

A spotlight on marine protected areas: the consequence of fragmentation

Fragmented legislation has meant that the existing system has struggled to progress the deployment of MPAs. Despite the existence of a non-statutory strategy (see Chapter 10), MPA creation has proceeded in an ad hoc and isolated manner.

There are notable gaps in the toolkit itself, of course (see Chapter 8), including within the EEZ. Yet statutory fragmentation is a big part of the picture too. The workaround for the EEZ gap has largely been through the use of Fisheries Act tools, meaning that such offshore “MPAs” are subject to the Fisheries Act purpose and principles rather than norms specifically designed for what we want MPAs to achieve. This has led to some existing MPAs within the EEZ being found wanting when it comes to protecting a representative range of biodiversity.¹²

They are also poorly integrated with other legislation. The protection of benthic areas from bottom trawling under the Fisheries Act does not protect them from non-fishing activities that can also damage seafloor biodiversity, such as deep sea mineral mining. This lacuna in protection was highlighted in the Chatham Rock Phosphate case.

Chatham Rock Phosphate Ltd obtained a mining permit for an area of the EEZ on the Chatham Rise under the Crown Minerals Act. The company then applied for a marine consent under the EEZ Act to physically remove phosphate nodules from the seabed. A complicating factor was that the nodules themselves supported rare cold-water coral communities, which would be destroyed by the mining activity, and would not re-establish once the phosphate was removed. Approximately half the proposed mining area overlapped with approximately 60 percent of a benthic protection area (the overlap being 5,236 square kilometres). While the decision-making committee turned down the application, partly because granting consent would be inconsistent with the benthic protection area, there was no legal requirement for it to do so on this basis.

Another key concern is that the expected outcomes of MPAs, even if they are established, may be undermined if other

impacts (in addition to fishing) are not managed effectively. Integration between land and sea is crucial for effective marine protection. Notable challenges are land-based sedimentation and pollution, which can impact on all types of MPAs (whether marine reserves intended to protect nature, or spatial controls intended to protect or recover fish stocks for utilisation).¹³ While the NZCPS has a sedimentation policy, it is weak (only requiring that activities not result in a *significant* increase in sedimentation) and has not been effective in addressing adverse impacts on MPAs in practice.

Sedimentation is a particular concern for the Auckland Long Bay Okura Marine Reserve, as earthworks for new urban development within the catchment, has created much greater sediment risk. Increasing housing development and intensification also causes substantial stormwater runoff with an associated cocktail of pollutants.¹⁴ Plastics, created on land, creep through the food chain and do not respect the invisible boundaries of a marine reserve. One can legitimately ponder what the point of preventing fishing, mining and other sea-based activities is, if the values being protected can be so drastically undermined by land-based stressors.

Additionally, creating MPAs can result in perverse environmental outcomes. They can displace fishing effort resulting in greater fishing pressure (and consequent depletion of marine life) in nearby areas. There is also the likelihood of increased fishing pressure around the boundary of MPAs themselves, reducing the effectiveness of the protective measures, as harvestable species moving outside the MPA boundary are caught.¹⁵ This means that MPA creation may need to be accompanied by other fisheries management measures, such as creating protective buffer areas around MPAs, and reducing the TAC for the broader area (and potentially buying back quota). The Sea Change Tai Timu Tai Pari Hauraki Gulf Marine Spatial Plan contained proposals along these lines, including the creation of Ahu Moana as a protective cloak around MPAs and measures to address any adverse effects of their creation on commercial fishers. As stated in the plan:¹⁶

Importantly, Ahu Moana are intended to be used as korowai (cloaks) to wrap around other types of MPA, buffering them from the edge pressures previously described.

The impacts of legislative fragmentation can be seen, not only in the impacts of land-based sedimentation on marine reserves, but also its effects on fishing. These impacts (eg the smothering of shellfish beds and destruction of habitats) are well established, but there is a disconnect between the interests that are affected (fishing) and the framework under which those impacts are managed (the RMA). There is no clear or directive mechanism by which the fishing aims of the Fisheries Act – maximising utilisation of stocks – can lead to controls on land-based activities generating sediment under the RMA (when, for example, a regional plan is being reviewed or urban growth is being considered under a district plan or regional policy statement). Sustainability measures under the Fisheries Act cannot be used to prevent activities further up catchments, only to control the impacts of fishing itself.¹⁷ As we pointed out previously:¹⁸

there is a serious lack of connection between management under the RMA and the protection of important fish habitat, with consequent impacts on the productivity of fish stocks, highlighted by the lax controls on forestry harvesting in the Marlborough Sounds with likely consequential effects on struggling blue cod and pāua stocks.

Conversely, some have questioned the extent to which controls under the Fisheries Act, in practice, take into account current and future land-based stressors when considering how much additional stress to put on stocks through fishing activity (eg when setting catch limits).

Where there are arbitrary spatial distinctions between frameworks this can also cause perverse incentives. The case of putting hard boundaries

around “protected” and “non-protected” areas like marine reserves has been mentioned above. Moreover, some may perceive the EEZ Act to be a “softer” framework than the RMA (partly due to the more robust participatory and notification provisions of the latter) and choose to conduct potentially harmful activities just on the seaward side of the 12 nautical mile boundary. For example, Ports of Auckland has an RMA permit from Auckland Council to dredge the seabed, but its marine dumping consent comes under the EEZ Act because the disposal site is just outside the boundary of the coastal marine area. This meant that over half the submissions lodged opposing the dredging permit were struck out, as they related to the impacts of dumping, which was deemed “out of scope” in RMA proceedings.¹⁹

Although legislative redesign is not a panacea for other problems in the system, a poorly designed suite of legislation can have real impacts. In particular, excessive fragmentation, or splitting statutes along inappropriate lines, can cause confusion, incoherence, inaccessibility and poorer environmental outcomes. Ironically, overlapping jurisdictions can create gaps in management, while spatial boundaries can create perverse incentives. The effects of fragmentation can be seen in the difficulties around protecting the Bryde’s whale and in creating a network of MPAs. These issues with statutory boundaries cannot be entirely addressed through integrative tools like marine spatial planning or creating better cross-referencing.



Sediment-generating earthworks, Beachlands, Auckland

11.3 Pragmatism and principle in legislative design

It is much easier to point out flaws in the existing system than to provide perfect alternatives. To some extent, boundaries will always be problematic. And the issues described above are not caused by fragmentation *per se*; instead, they may be a product of the specific *lines* along which statutes have been divided.

Thinking about design *principles* might help policy makers to evaluate pros and cons of different options and make considered judgements. Some substantive principles from Chapter 7 may be relevant here. For example, ecosystem-based management may tend to support options that integrate ecological concerns in a single legislative framework, including the ecological connections between land and sea, rather than having sectoral or spatial silos. But more targeted legislative design principles can also be considered. We refer readers to our previous work on resource management reform for more explanation of such principles.²⁰ In short, we should ensure that legislation and its boundaries are coherent, certain, accessible, durable, integrated, tailored to Aotearoa New Zealand's circumstances (including te Tiriti o Waitangi), and efficient.

In particular, a system is coherent if it has “clarity and intelligibility” or is “logically ordered”;²¹ and relationships between statutes need to be designed so it is clear how they operate together (even if they may be intentionally conflicting).²² A suite of legislation should be designed in a way that is intuitive and accessible to those who use it (avoiding extensive exceptions and carve-outs);²³ and people (including institutions) need to understand why statutes are arranged as they are, partly in order to determine easily whether they are affected by them.

Duplication and overlap should be avoided unless there is good reason.²⁴ Practically speaking, it may be that Te Tiriti settlement legislation needs to remain separate to avoid undermining its more targeted and carefully negotiated purpose. However, beyond that, a tikanga approach might also suggest a more integrated approach to the management of different sectors.

Legislative design principles can help in determining how we divide up the statute book and evaluate the benefits and costs of different options, although they do not provide hard and fast answers.

The principle of coherence tells us that close consideration should be given, not just to *how* statutes could be split up differently in the future, but also *why*. What is the reason for putting something in a separate statute?

One answer is that there is no real rationale. The statute book evolves organically to respond to issues as they emerge. It is a product of democratic discourse and historical circumstance, both of which are messy (see Chapter 4). The existing system can, to some extent, be explained in this way.

The role of pragmatism in legislative design

Some people speak of Aotearoa New Zealand's “statute book” as if it exists as a grand, coherent code of law. The reality is that legislation has emerged over many decades in a fairly ad hoc way. From time to time efforts have been made to create better integration (eg the reform process leading to the RMA or the creation of the umbrella Conservation Act), but such measures have been more than counteracted by a broader trend towards fragmentation, carve-outs and gap filling.²⁵

To some extent this is because it is easier to create a statute to respond to a particular issue than it is to reimagine or even amend wide ranging frameworks like the RMA. There is never the simplicity of a blank slate. For example, we have a lot of bespoke statutes like the Hauraki Gulf Marine Park Act and Fiordland (Te Moana o Atawhenua) Marine Management Act, which create more nuanced marine protected areas and integrative place-based mechanisms (including new institutional features) than are available under more general legislation like the Marine Reserves Act and RMA. It may have been simpler to create the EPA via a standalone act than add a new part to the Environment Act.

It is also interesting to consider the widespread view that we need to create a separate act for MPAs – an MPA Act – to replace the Marine Reserves Act. This is despite the potential for a range of spatial protections to be delivered through amendment to the purpose and machinery of broader frameworks like the RMA, EEZ Act, Wildlife Act, Fisheries Act and Marine Mammals Protection Act.²⁶ It can be simpler to just plug holes, create overlays and avoid the noise that inevitably comes from messing with the fabric of multiple other acts. The same phenomenon was seen when the EEZ Act was enacted; while policy makers considered more systemic options, they settled on something that just filled gaps.²⁷

Statutes also reflect the gradual development and layering of new areas of concern as they emerge over time. Conservation laws have developed iteratively, from the Wildlife Act, to the Marine Reserves Act, to the Marine Mammals Protection Act, to the Conservation Act and various bespoke statutes for particular places. They grapple with different issues as they have become more important, but reflect the concerns of the time they were enacted. Similarly, the need to manage fish stocks and prevent collapse pre-dated the realisation of the complexity of the connection between fisheries, habitat, land-based pressures and climate change. It is not surprising, then, that a well-developed and integrated fisheries framework – a lengthy, standalone act – has been in place for a long time, while conservation laws in the marine space are comparatively fragmented, simplistic and patchy.

However, some boundaries have been a conscious system design choice rather than just a pragmatic and reactive response to new issues. It is not just that it is too hard to reshuffle legislation; it is also, perhaps, because policy makers do not want to. Such choices partly reflect historical circumstances and assumptions about what the focus of management should be. For example, a sector-specific Fisheries Act has been deliberately separated from broader outcomes-focused frameworks like the RMA and EEZ Act, despite fish stocks being a natural resource that would otherwise fall within their ambit. The RMA was not simply layered on top of the 1983 Fisheries Act to respond to a particular issue as it emerged; instead, a conscious choice was made to continue to treat the frameworks separately. Fishing had always been a world apart with its own targeted institutions, management tools, stakeholders and norms.²⁸ And so it has remained.

Similarly, the rate of depletion of marine minerals was deliberately excluded from the RMA and EEZ Act, partly because minerals are finite resources that cannot be managed “sustainably” and the Crown has ownership rights, but also because a sectoral silo for mining had existed for a long time and was already well-developed.²⁹ Climate change has been largely carved out into a separate legal framework, despite coming within the purpose of the RMA.³⁰ The issue is too cross-cutting to deal with through changing the dozens of statutes that would otherwise need to be amended. It was simpler to place a statutory emissions reduction plan over the top of them and create an emissions trading scheme to the side. And it has been suggested that novel marine activities, such as carbon capture and storage

and offshore energy may end up with their own bespoke statutes and carve-outs, rather than being welcomed into the fold of broader acts like the RMA.³¹ These are practical responses.

Statutes can also be separated to give a focus to a particular area of concern. This could be a sector (eg shipping), an outcome (eg Covid-19 recovery), a resource (eg minerals) or a tool (eg an MPA). For example, submarine pipelines and cables are protected in bespoke legislation, even though their protection could conceivably be integrated into the RMA (which already protects areas from interference through designations and can spatially separate activities) or Maritime Transport Act (which already deals with the impacts of ships and international frameworks for liability). Moreover, a sectoral focus for marine oil spill preparation and response under the Maritime Transport Act highlights the value of focusing on the source of harm when objectives are clear (prevention), consequences are severe and direct (for health and marine life), and clear institutional responsibility is needed to deal with emergency situations (more akin to civil defence). Passing a targeted act can be a visible symbol that something *matters*.

None of this is to say such pragmatic approaches are necessarily *wrong*. As will be seen, there are some good reasons to split statutes up in these (and other) ways. Not least, the RMA would probably double in length and complexity if it tried to incorporate something like the emissions trading scheme or the QMS. Rather, we simply observe that the statute book is a bit like the universe: over time, it trends towards chaos.³² Carve-outs are created. Gaps are filled. And this can be as much the result of pragmatism, political compromise, and historical circumstance as it is about principle.

A future oceans management system could continue to take this approach, introducing targeted legislation to tackle new issues as they emerge. Area-specific MPA statutes – one for the Hauraki Gulf, one for the south-east of the South Island, and another for the Rangitāhua/Kermadec Islands ocean sanctuary – might be more politically achievable than tackling a blanket MPA Act. Such flexibility can have benefits when compared to grand legislative schemes, in that:³³

it needs to be reasonably clear from the purpose of a statute what is expected of [people] under it. There should not be so few statutes as to make it unclear what exactly each one does... the RMA itself is guilty of this, in its wide and contestable definition of sustainable management.

To some extent legislative design is, and must be, a product of pragmatism. It can be difficult to change large legislative schemes, and sometimes more effective and focused action can be achieved by enacting bespoke statutes as new issues arise.

A more principled explanation for dividing legislation is possible, however. The starting point is that every act has a different purpose.³⁴ If a purpose is distinct enough, it belongs in dedicated legislation.

For instance, fisheries and minerals legislation are focused on particular industries, but arguably the *reason* they have a separate existence is not because sectors require bespoke legislation per se. Rather it is because the purpose of managing those sectors (essentially, maximising long-term utilisation of fish stocks and maximising a financial return to New Zealanders) is quite different to the purpose of acts like the RMA. Nationally valuable resources like these are to be managed in an active, not passive, manner.³⁵ We do not have the same imperative with other resources (eg tidal energy), so we have no need for a separate “Tidal Energy Act” (yet). The same kind of purposive distinction can be seen in the division between the RMA and conservation legislation like the Marine Reserves Act and Wildlife Act. They are trying to achieve different things,³⁶ even though they are managing some of the same subjects (“environmental” impacts).³⁷

All this begs the question: when do two statutory purposes become distinct enough to warrant structural separation? For example, one could say that the “purposes” of two regional coastal plans under the RMA are quite different from each other, because they respond to different geographical contexts and have bespoke objectives. Yet that does not justify separate *statutes* for each.

Even more striking is the fact that water conservation orders under the RMA have their own more targeted purpose *within* one act.³⁸ Some statutes cobble many different purposes together in one place.³⁹ Yet the very similar purposes of the EEZ Act and RMA have been seen as distinct enough to warrant separate statutes.⁴⁰ In short, saying that legislative boundaries should be defined by different statutory purposes does not get us very far.

The most fundamental reason for putting something in a separate statute is that it has its own purpose. However, it is not always clear how purposes, and therefore statutory boundaries, should be divided up. Purposes can be highly specific or very broad, and they can overlap.



Danish seine net, Hauraki Gulf

Raewyn Peart

11.4 Statutory lenses

The concept of “lenses” can take us further. A lens is, essentially, about what our main concern is when we slice and dice legislative boundaries (and their purposes). We explained this in our work on resource management reform, where we invited the reader to:⁴¹

consider the RMA, which has an extremely wide scope. It deals with water and air quality, ecosystem health, noise pollution, the development of land, and many other things. It regulates activities based on the impacts they have on the environment, not the sector to which an activity belongs (eg agriculture), the kind of person doing the activity (eg the government), or the area in which something happens (eg cities).⁴² For convenience, we can call this kind of statute an

“outcomes-based” one ... Other statutes may be “sectoral”, in that they regulate a particular industry or activity (eg an act regulating mining or an act regulating transport).

There are many lenses that could be looked through. They could, for example, be spatial (we split up statutes based on their location), domain-based (concerned with the resource or subject being managed, like fish or marine wildlife), tool-based (an individual statute provides a home for one or more interventions, like the emissions trading scheme and QMS), or institutional (each statute covers some or all the statutory responsibilities of one or more particular institutions, like Maritime New Zealand). Every one of these lenses has, to some extent, been used to split statutes in the current system (see Figure 11.1). We explore some of these below, before considering potential reform options for the future.

Outcome	Domain	Sector	Space	Institutional and administrative	Tool
RMA	Climate Change Response Act	Fisheries Act	Some te Tiriti settlement legislation	Environmental Protection Authority Act	Marine Reserves Act
EEZ Act	Marine Mammals Protection Act	Fisheries Settlement Acts	Kaikōura (Te Tai o Marokura) Marine Management Act	Local Government Act	
Biosecurity Act	Wildlife Act	Crown Minerals Act	Sugar Loaf Islands Marine Protected Area Act	Local Government (Auckland Council) Act 2009	
Conservation Act	MACA Act	Continental Shelf Act	Fiordland (Te Moana o Atawhenua) Marine Management Act	Environment Act	
Hazardous Substances and New Organisms Act	Heritage New Zealand Pouhere Taonga Act	Maritime Transport Act	Hauraki Gulf Marine Park Act	Environmental Reporting Act	
Waste Minimisation Act		Submarine Cables and Pipeline Protection Act		Territorial Sea, Contiguous Zone and Exclusive Economic Zone Act	
Litter Act		Building Act			

Figure 11.1: The different lenses through which existing marine legislative boundaries have been created. Some statutes having an influence on te moana span multiple systems, including public policy areas like education, property and health and safety.

There are different lenses we can look through when deciding where to draw boundaries between statutes. For example, a statute's boundaries can be defined by its focus on (1) achieving a particular outcome, (2) regulating a particular sector, (3) managing a specific domain or resource, (4) dealing with a geographically defined space, (5) providing a particular tool, or (6) laying out the functions and powers of a particular institution.

An outcomes-based lens

As mentioned above, one type of division is an outcomes-based one. Here, statutes are split up because each is designed to achieve a particular type of outcome irrespective of space, sector, domain or institution. These often exist where achieving an outcome relies on managing all these things in an integrated way, suggesting that a single statute (and therefore a coordinated use of tools within it) is desirable.

However, it is not always straightforward to determine what a single outcome should encompass, and therefore what the boundaries of such statutes should be. For example, the RMA seeks an outcome of sustainable management. This sounds very broad (and it is) but it does not extend to other outcomes like the active utilisation of a resource (which is sought for sectors like fishing and mining), the permanent and strict protection of species or spaces (eg marine reserves and marine mammals), or the ownership of marine resources (eg the foreshore and seabed). An

alternative way to split up outcome-based statutes might be to focus one on environmental protection and another on economic development (which was one option promoted for RMA reform), although such outcomes would still have considerable overlap.

Focusing on a single cross-cutting outcome like sustainable management may sound integrative (and to some extent it is), but it can also have fragmentary effects by splitting things up in other ways. For example, other outcomes might need to be achieved in a particular space (eg the ocean), in the regulation of a particular sector (eg mining), or in the protection of a particular species (eg the fairy tern).

A statute can be defined by the type of outcome it seeks. These statutes cut across spaces, sectors, and domains. An example is the RMA, which seeks the outcome of "sustainable management" irrespective of who is conducting an activity, where it is⁴³ or why they are doing it.

A spatial lens

If one looks through a spatial lens, different statutes would apply to different places. This kind of division exists at the moment, for example, between the RMA and the EEZ Act, where there is a sharp jurisdictional line drawn at a 12 nautical mile limit. We can define their scope by drawing lines on a map. Other spatial boundaries can be seen between Acts focused on the marine environment, like the Marine Reserves Act and Submarine Cables and Pipelines Protection Act,⁴⁴ and statutes that span both land and sea, like the RMA, Biosecurity Act, Wildlife Act and (to some extent) the Fisheries Act.⁴⁵

Another manifestation of a spatial division is between legislation that applies across the whole of a marine area (like the Conservation Act), and that which applies only to very specific areas of the marine space (eg the Hauraki Gulf or Fiordland).⁴⁶ Often the reason for place-based legislation is not to create carve-outs, but rather to create an additional layer of management (ie *both* frameworks apply in a particular place) or to make sure the tools under other frameworks are being used in a coordinated and place based way (eg that MPAs, fishing restrictions and aquaculture space are mapped or planned together). In other words, fragmenting statutes across different geographical spaces can be one way of integrating the management of different sectors, resources or domains *within* that space.

Raewyn Peart



Feeding sea lion pup, Otago Peninsula

A statute can be defined by the space or location it applies to. This reflects that different areas may require different treatment or a more integrated approach to management. Many spatially defined statutes are observable in the current system. An example is the Hauraki Gulf Marine Park Act.

A sectoral lens

Another lens through which legislation can be split is sectoral. Here, different statutes apply to particular ways in which people use a resource (eg fishing, mining, shipping or tourism). The term “sector” is being used in a broad sense as a type of human activity (eg recreational boating, fishing and diving), not just where a use is commercial.

In the current oceans management system there is a notable division between outcomes-based acts like the RMA and EEZ Act and sectoral statutes like the Fisheries Act, the Crown Minerals Act and the Maritime Transport Act. The former set of laws is focused on the environment itself, whereas the latter are focused on the particular *ways* in which people use elements of the environment. Another way of describing this distinction might be statutes that are effects-based and those that are activity-based.⁴⁷

A statute can be defined by the sector (ie type of human activity) it applies to. There are a number of sectoral statutes in the current system, such as the Fisheries Act.

Sectoral boundaries can also be drawn to match the responsibilities or mandate of a specialist regulator or other institution. These two things sometimes go hand in hand. For example, under the Fisheries Act, Fisheries New Zealand (and the Minister) have the dominant role. The point of having a separate act can be partly to allow an entity to have close and integrated control over decision-making for a particular sector, where specialist expertise is required. Similarly, the Crown Minerals Act is largely the territory of the Minister of Energy and a branch of Ministry of Business, Innovation and Employment. And the Maritime Transport Act is a collection of matters designed to form a coherent set of responsibilities for Maritime New Zealand, as much as it is an act about shipping.⁴⁸

By contrast, outcome-based statutes like the RMA tend to involve a wider range of institutions (eg councils, courts, commissioners and multiple Ministers and agencies). While the Ministry for the Environment is responsible for overseeing the RMA, it is a stretch to say the statute is defined by the Ministry’s role in the same way as the sectoral frameworks described above.⁴⁹

The boundaries of sectoral statutes (eg the Maritime Transport Act) can also be defined by the responsibilities of a particular regulator or public authority overseeing that sector (eg Maritime New Zealand).

A “domain” based lens

Statutes can be divided according to particular domains. The term “domain” defies universal definition. However, it is useful to think about a domain as a component of the marine environment that we value. An anthropocentric view might characterise these as “resources”. The key point is that when we speak of domains, we are concerned with managing the environment itself, not the particular ways in which a resource or resources are used by humans (these are *sectors* or *activities*).

Domains can cross spatial boundaries if they are broadly defined. For example, the climate cuts across land and sea,⁵⁰ as does biodiversity, soil and air. Even freshwater can be part of the marine environment, such as in estuaries.⁵¹ Domains themselves often overlap,⁵² due to the interconnection of everything in the natural world.

The “marine” environment is often treated as a domain in its own right when the broader resource management system is being considered (such as in environmental reporting).⁵³ But it can be broken down further into particular resources (eg seabed minerals), species or groups of species (eg fish) or features (eg heritage sites or seascapes). These are all about an aspect of the marine environment being managed, not the human activities affecting them. For example, while *fishing* is a sector, *fish* can instead be treated as a domain. A number of statutes in the current system can be regarded as domain-based ones, such as the Wildlife Act, Marine Mammals Protection Act, MACA Act and Climate Change Response Act. But our current Fisheries Act is really about *fishing* as a sector, not the management of fish per se.

Statutes can be divided up to manage different domains. A domain can be thought of as the thing that is valued, rather than the way in which it is used (a sector/activity). While the marine environment can be thought of as one large domain, it can also be broken down into a finer scale by statutes focused on particular resources (eg fish) or other aspects that are valued (eg wildlife). We have a number of domain-based acts in the current system, such as the Marine Mammals Protection Act.

technical exercise unfamiliar to the RMA or EEZ Act. The QMS as a whole falls into the same boat.

Statutes can be split up to provide a bespoke home or framing for complex tools, especially where they require specialist expertise to deploy or involve market rather than regulatory mechanisms.

Administrative and institutional lenses

Some legislative boundaries can be purely administrative or institutional in nature. For example, the Environment Act is a standalone statute that creates the Ministry for the Environment and Parliamentary Commissioner for the Environment, and the Environmental Protection Authority Act creates its eponymous Authority. The Environmental Reporting Act outlines an information gathering and reporting process that informs both New Zealanders and statutory decision-making. And the main concern of the Territorial Sea, Contiguous Zone and Exclusive Economic Zone Act is to recognise and delineate maritime zones in accordance with international law.⁵⁷

The logic behind these types of splits may sometimes be that a statute provides for processes or institutions that apply across multiple other statutes. The Environmental Reporting Act, for example, compiles information across many domains; it is not just about reporting on the outcomes achieved under the RMA, so would not be a good fit within it.

Administrative legislation (such as the Environmental Reporting Act) may be necessary where processes and institutions cut across other statutes.

The point of some administrative acts may also be to separate the backroom machinery of the system from the frameworks that contain the interventions that actually shape people's behaviours (and therefore) have to be highly visible to them. For example, a person seeking consent under the EEZ Act is unlikely to be concerned with provisions establishing the EPA or jurisdiction in the EEZ, and that Act is thus more user-friendly to applicants because of the location of such things elsewhere.⁵⁸

One way of thinking about this is that statutes can be split by grouping together all the provisions that would be most useful to those using each

A tools-based lens

Instead of focusing on a particular outcome, sector, location or domain, a statute can be a place for a specific tool or range of tools to be deployed. The Marine Reserves Act can be seen as this kind of statute. In the current system, we have relatively few standalone statutes that have the purpose of creating a particular tool.⁵⁴ Instead, legislation usually provides multiple tools to manage a particular domain (eg the Wildlife Act) or sector (eg the Fisheries Act) or to achieve an outcome (eg the RMA).

That said, the division between statutes can sometimes be explained by their use of quite different "families" of tools. For example, although climate change mitigation falls within the purview of the RMA, the emissions trading scheme is a highly complex market mechanism and forms the flagship⁵⁵ tool delivered under the Climate Change Response Act. So while this Act can be seen as a domain-based one (concerned with the climate), its separate existence can also be explained as a tool-based home for the emissions trading scheme. After all, it does not purport to manage everything to do with the climate; the RMA and other acts play an important role too.

The same kind of thing can be said for the tools under the Waste Minimisation Act (like product stewardship schemes) and the Biosecurity Act (eg pathway management plans). These pursue outcomes that are to a large extent within the broad framing of sustainable management under the RMA,⁵⁶ but they are not integrated within it, because they involve interventions not easily provided for in its "planning and consenting" ecosystem of tools. Instead, they have their own kinds of intervention around which a bespoke legislative frame is built. In other words, their separate existence is arguably defined more by their toolkit than by the outcomes they seek. The same logic can apply to the stock assessment process and setting of a TAC under the Fisheries Act, which not only has a distinct purpose (sustainable utilisation) but is also a highly complex and

act, and putting the remaining content elsewhere. After all, legislative design principles say that the statute book should be *accessible* as well as coherent. That might be about carving off administrative detail, making something like the RMA shorter and less “impenetrable”.⁵⁹ But it can also be about who the primary “audience” of a statute is (eg particular industries, decision-making institutions, environmentalists, or those being impacted). Existing legislation takes different approaches in different circumstances. For example:

- The fishing sector can be seen as the primary audience of the Fisheries Act and related legislation (rather than those concerned with fish *per se*), although it can equally be seen as a reasonably self-contained home for the responsibilities of Fisheries New Zealand as an institution.⁶⁰ Those concerned with “fish” more broadly need to engage with multiple acts (including the Wildlife Act and RMA).
- A lot of “backroom” machinery is contained in the extremely long Maritime Transport Act (including the establishment⁶¹ of Maritime New Zealand). That is unlikely to be useful to those operating ships (who might find it easier to instead locate the ship-related biosecurity requirements of the Biosecurity Act within the Maritime Transport Act) but may be more useful to Maritime New Zealand itself (its functions and objectives are firmly linked to most of the toolkit at its disposal).⁶²
- In contrast, the EPA has to juggle many fragments of legislation, including its generative legislation (the EPA Act) and those under which it has roles shared with others (eg the Hazardous Substances and New Organisms Act, RMA and EEZ Act). The EPA Act itself does not do all of these things.
- Similarly, the Minister (and Ministry) for the Environment are seen as more than capable of understanding their roles under multiple complex statutes (eg the EEZ Act, the Environmental Reporting Act, the Hazardous Substances and New Organisms Act, the Environment Act and the Climate Change Response Act). Legislative boundaries are not tailored to what would be simplest for the Ministry.

Statutes can be divided up so that most content of relevance to its primary audience is grouped together in one place. Other “administrative” material can be split off into other legislation.

Other lenses

Other lenses for splitting legislation may be possible, but less workable. One could be based on the role the system is performing. For example, it might be possible to have one act charged with setting environmental limits (applying to all domains and sectors), another having a planning and consenting framework for making trade-offs, one dealing with allocation, and another for enhancing the environment. While this is likely to run into many practical difficulties when the same tools are expected to perform multiple roles (what if allocative choices were made according to which proposal would best enhance the environment?), it does raise the interesting possibility of having a separate statute focused on imposing and defending environmental limits in the marine space.

Although splitting up statutes based on the different roles the system is performing is not a practical approach to legislative design (and not one reflected in the current system), one interesting possibility would be to separate a statute responsible for imposing and defending environmental limits.

Multiple lenses can be used in layers

There is no single lens through which current marine legislative frameworks have been split up. We have outcome-based frameworks like the RMA, sectoral ones like the Fisheries Act, administrative ones like the Environmental Reporting Act, tool-based ones like the Marine Reserves Act, domain-based ones like the MACA Act, and space-based ones like bespoke legislation for the Hauraki Gulf.

Some statutory boundaries can be explained by more than one lens. For example, it is not clear whether the Maritime Transport Act is focused on a sector (shipping) or defined by the various institutional roles performed by Maritime New Zealand. It might even be a spatial one – after all, we have separate *maritime* and *land* transport legislation. Similarly, the RMA and EEZ Act are outcomes-based statutes, but they can also be seen as spatial statutes (applying to defined areas). And the Continental Shelf Act is defined both by the sector it applies to (mining)⁶³ and the space it regulates (beyond the territorial sea). All this marine legislation fits together in a complex jigsaw puzzle involving both hard and overlapping spatial, sectoral and outcome-based jurisdictions. Sometimes interfaces between them remain quite unclear.

For a system to be coherent, it cannot chop and change lenses at will. For example, there would be little point in having a broad, outcome-based statute like the RMA, while also having separate statutes dealing with the environmental effects of fishing, mining, aquaculture, shipping and offshore wind farms. The more carve-outs there are, the less meaningful core statutes become.

However, this does not mean that one lens needs to be chosen as the only basis for splitting legislation. For example, a sectoral statute for fisheries could still co-exist with an outcomes-based statute like the RMA. Instead, we need to consider how multiple lenses might be *layered*, and how the resulting statutes might relate to each other. As we have pointed out previously (and giving it a marine flavour):⁶⁴

We can usefully think of lenses as existing in a hierarchy or sequence. We can start by choosing a primary lens (eg a sectoral one), which we apply across the whole system. For example, we could have (among others) a Mining Act, an [Aquaculture] Act, and a Transport Act. Each act [which would apply across land and sea] would deal with all issues relevant to the sector in question (such as managing the sector's environmental impacts, any funding decisions, and the allocation of resource use rights).

We can then consider what those statutes do not do, and apply a secondary lens (eg an institutional one) to fill those gaps across the whole system. For example, if institutions were needed to operate across multiple sectors, such as an Environment Court, [Oceans Commission] or regional councils, it would not be appropriate to include them in any sector-specific act. So we could enact specific statutes – an Environment Court Act, [an Oceans Commission Act] and a Local Government Act (among others). But we would not need to enact a separate statute establishing an institution concerned only, for example, with transport, like [Maritime New Zealand], because that would already fall firmly within the scope of a sectoral Transport Act.

Again, we could then consider what still remains to be done, and apply a tertiary lens (say, a location-based one) to fill any gaps. For example, if a location had a special character that could not be recognised through restrictions on particular sectors or the behaviour of a particular institution [eg a congested space like the Hauraki Gulf where marine spatial planning was required], we could enact a specific statute to do so.

Applying a hierarchy or sequence of lenses means that most of the content of the system is contained within those statutes created using a *primary* lens. Those statutes are the first cab off the rank, so to speak. Using sectors as a primary lens would result in sectoral statutes dealing with most things (the environmental impacts of each sector, the allocation of resources used by the sector, sector-specific institutions, and so forth). Statutes created using a secondary lens would therefore have less scope, because their role would be simply to fill any gaps that remain.

Most of the content of the system is contained in statutes that are created using a primary lens. Other lenses are then applied only to fill the gaps left by previous ones, not to overlap.

How lenses are layered in the current oceans management system

While they are not perfectly applied, the current system can be understood as *layers* of lenses (see Figure 11.2 below). We described this for the resource management system as a whole in previous work.⁶⁵ Yet how lenses are layered in the marine context is subtly different, partly owing to the existence of strong sectoral legislation.



Longlining, Hauraki Gulf

Raewyn Peart

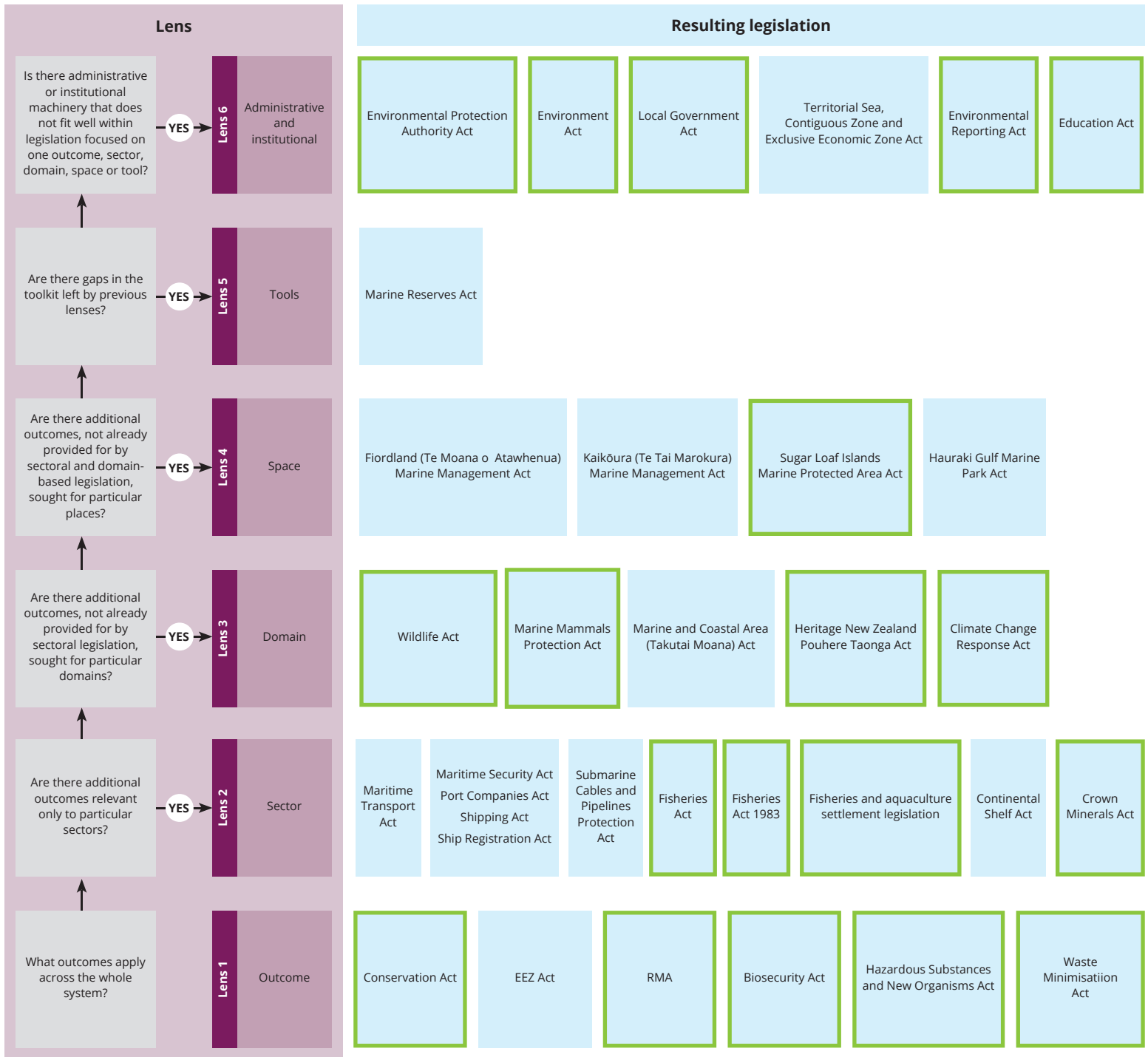


Figure 11.2: Layers of core legislation in the current oceans management system. Most of the system's content is found in outcome-based statutes, with gaps being filled by statutes created through other lenses (eg ones focusing on particular sectors, spaces or institutions). This figure is not to suggest that one statute is "dominant" or "subserving" to another at a different layer. Instead, it is about how the content of the system has been distributed between different types of statutes. Green framing indicates where statutes also apply to land and/or freshwater environments.

As on land, the primary lens that has been used is still an outcomes-based one. Statutes like the RMA, EEZ Act, Conservation Act, Waste Minimisation Act and Biosecurity Act seek general outcomes rather than being defined by a particular sector/activity, domain/resource, location,⁶⁶ tool or institution. Sustainable management applies to all industries and in all places.

A secondary, sectoral lens has been generally used to fill gaps in outcome-based frameworks. These gaps can be explained in two ways. First, they are because some sectors require the system to pursue *additional* outcomes that are specific to one activity and not others (eg fisheries⁶⁷ is about maximising yield as well as sustainability, shipping/boating is about complying with international law, safety requirements, and proactive planning for preventing and cleaning up oil spills,⁶⁸ and mining is about returning royalties to the Crown as a property owner). These would be an uneasy fit within even the broad purposes of the RMA, EEZ Act, or Conservation Act.⁶⁹

Secondly, gaps can be explained by the need for quite different *tools* to manage aspects of particular sectors. To some extent these tools follow naturally from a sector having an additional outcome being sought. For example, the RMA's planning and consenting framework is ill equipped to integrate a tool like a TAC or the QMS, which is designed to maximise sustainable yield. Similarly, internationally prescriptive design and health and safety codes for maritime transport would be an uneasy fit in the effects-based framework of the RMA,⁷⁰ as would a property allocation framework under the Crown Minerals Act (eg bids, block offers, royalties).

To some extent these sectoral statutes fill genuine gaps, rather than seeking to carve-out exceptions. For example, mining operations must comply with consents granted under the RMA and EEZ Act *as well* as tools like exploration permits under mining legislation. Commercial and recreational ships/boats must comply with RMA regulations on dumping in the coastal marine area.⁷¹ And although the Fisheries Act overlaps with the RMA, it can impose controls on the environmental impacts of fishing activity (at least in theory) so this is by no means a carve-out.⁷² Instead, a dual layer of controls are imposed for subtly different reasons (a point which is explored later in this chapter).⁷³ Similarly, although there is a lot of institutional cooperation,⁷⁴ compliance with RMA requirements for aquaculture does not remove the need to comply with Biosecurity Act requirements. In short, there is some coherence in the way boundaries have been split between outcome and sector-based legislation.

Where a broad outcome is sought across the whole system, it is generally contained within legislation built around achieving that outcome, and applies to all sectors and spaces. This leaves gaps, because some outcomes apply only to particular sectors, resulting in an additional layer of sectoral legislation such as the Fisheries Act.

Primary and secondary layers of legislation still leave some gaps, however. These are partly filled by domain-specific statutes. For example, while the Fisheries Act fills a gap in the RMA and EEZ Act relating to the proactive management of fish stocks, there is a whole category of fish that lies outside the concept of a "fishery". These need to be protected and proactively enhanced (populations recovered) rather than utilised (eg great white sharks). This is the role of the domain-based Wildlife Act.

Similarly, the Wildlife Act and Marine Mammals Protection Act fill gaps in the RMA, EEZ Act and (perhaps surprisingly) Conservation Act that are not about managing fishing (and are therefore not dealt with already by the Fisheries Act). That includes impacts on protected marine life from other activities (eg parasitic threats, intentional hunting, harassment and other direct interactions like shark cage diving, whale watching, and interference with seabird and shorebird habitats).⁷⁵ These have much more directive purposes than the RMA and EEZ Act.

Moreover, while sectoral statutes determine who owns seabed minerals and fishing rights (which are core to those sectors), it is left to the broader domain-based MACA Act to resolve the question of ownership of the foreshore and seabed itself (and the customary rights and title that go along with that). Ownership is a significant gap left by outcomes-based statutes like the RMA, potentially because it is a marine-specific issue, or because it is not necessary to resolve property rights to achieve sustainable management.⁷⁶ Domain-based legislation for heritage (including marine heritage) and climate change fill other gaps left by outcomes-based statutes, but largely because they use quite different tools, not because they seek to achieve fundamentally different things from the RMA.⁷⁷

Some domains are managed to achieve more specific things than are provided for in outcomes-based or sectoral statutes, or by using an additional range of tools. This results in a layer of domain-based legislation that fills gaps, such as the Marine Mammals Protection Act.

A fourth layer of legislation fills gaps that still remain. These are created using a spatial lens. General outcome-based acts, sector-focused acts and domain or resource-focused acts can still fail to recognise the special characteristics of particular places. This partly⁷⁸ explains the existence of a number of geographically specific statutes for Kaikōura, the Hauraki Gulf, the Sugar Loaf Islands and Fiordland. Generally, these do not seek carve-outs from other frameworks created using earlier lenses, but instead seek to coordinate tools used under them in a way that reflects the values of the particular location. Because iwi and hapū are linked strongly to place, whenua and moana, te Tiriti settlement legislation is often location specific.

The Marine Reserves Act, which seeks to preserve particular areas in their natural state as the habitat of marine life for scientific study, can be seen as a location-specific statute. However, it can also be seen as a “tool” based statute akin to the Reserves Act on land. It is about creating new protections, not just managing the values of places that have already been identified as special. While other spatial protection tools are available under outcome-based, sectoral and domain-based statutes (eg RMA zoning, Fisheries Act taiāpure and marine mammal sanctuaries), it fills a gap that remains in their combined toolkit: a strong, no-take protected area designation protecting a space from all potentially harmful activities.

A layer of location-specific legislation fills remaining gaps to the extent that previous lenses do not reflect the particular needs or values of a place. A further layer fills gaps in the toolkit, notably for marine reserves.

A final layer of legislation in the current system can be described as institutional or administrative. Where institutions and processes relate squarely to the outcomes, sectors, domains and spaces in previous layers of statutes, that is where relevant provisions are generally found. For example, it is logical that the Department of Conservation is established under the Conservation Act and that Maritime New Zealand's existence is continued under the Maritime Transport Act. However, some may not be a comfortable fit in any of these previous layers, given their cross-cutting nature. For example, the Ministry for the Environment, the Parliamentary Commissioner for the Environment and the EPA have roles that span many other statutes, so their creation in separate acts makes sense.⁷⁹

A final layer of administrative and institutional legislation fills gaps where such things are not a comfortable fit under legislation created under previous lenses.

Raewyn Peart



Kaikōura coast

11.5 Options for the future

The conceptualisation above is by no means perfect, partly reflecting the pragmatism and messiness that defines a system that has evolved over time in response to emerging issues, changing values and political possibilities. It is not always obvious which lenses have been laid down first, and which have been left to fill gaps (eg domains and sectors).

However, the idea of layering legislative lenses provides a conceptual starting point for considering future options. Instead of thinking about millions of possible configurations on a piecemeal basis, we can instead ponder how different lenses might be layered, or manage the relationships between lenses differently. These could result in either minor or significant changes.

Refining the boundaries between lenses

A targeted approach to legislative design could involve refining the boundaries between statutes created through different lenses. One option would be to remove any “carve-outs”, where the reason management actions no longer fall within one layer of statutes is that they have been deliberately removed from them. Of particular interest here is the boundary between outcome-based legislation and sectoral frameworks. For example, the boundary between the Maritime Transport Act and EEZ Act (and RMA) could be reconsidered.

The Maritime Transport Act’s “environmental” components relating to discharges from ships could be shifted to the EEZ Act, providing a more consistent normative basis and integrated framework for rules and consenting with respect to discharges. Its provisions concerning marine



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Container ship, Auckland

protection more broadly, such as oil spill preparedness and response, could be shifted as well. After all, spills on land are firmly within the jurisdiction of the RMA and can generally be managed through conditions and bonds. Spills and other environmental measures (eg habitat restoration, protection from other pressures) are intimately related (as seen in the wake of the *MV Rena*), suggesting that synergies could be embraced within the same framework. Even at sea, oil spills are not just about “transport” (they apply equally to installations as ships), so are arguably an odd fit for a statute like the Maritime Transport Act.

However, there are other considerations. Notably, oil spill preparedness and response measures (including complex international agreements

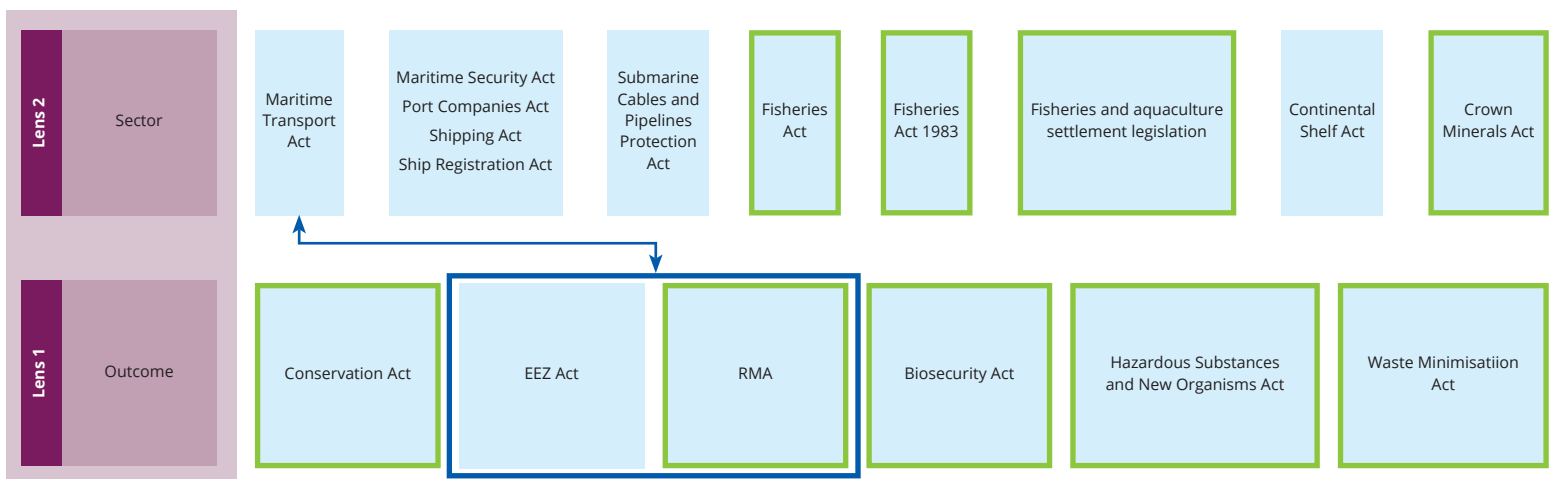


Figure 11.3: Reconsidering the boundary between the Maritime Transport Act and the EEZ Act (and RMA)

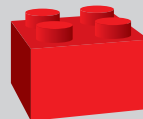
around liability) are quite unlike other tools in the RMA and EEZ Act, as are detailed ship design requirements.⁸⁰ The RMA does not regulate the design of cars, so why should it do the equivalent at sea?⁸¹ The boundary between the Maritime Transport Act and EEZ Act was considered closely when many provisions *were* shifted soon after the latter was enacted. It is not a “neat” boundary, but it is arguably a more practical one.

A spotlight on the transfer of functions from the Maritime Transport Act to the EEZ Act⁸²

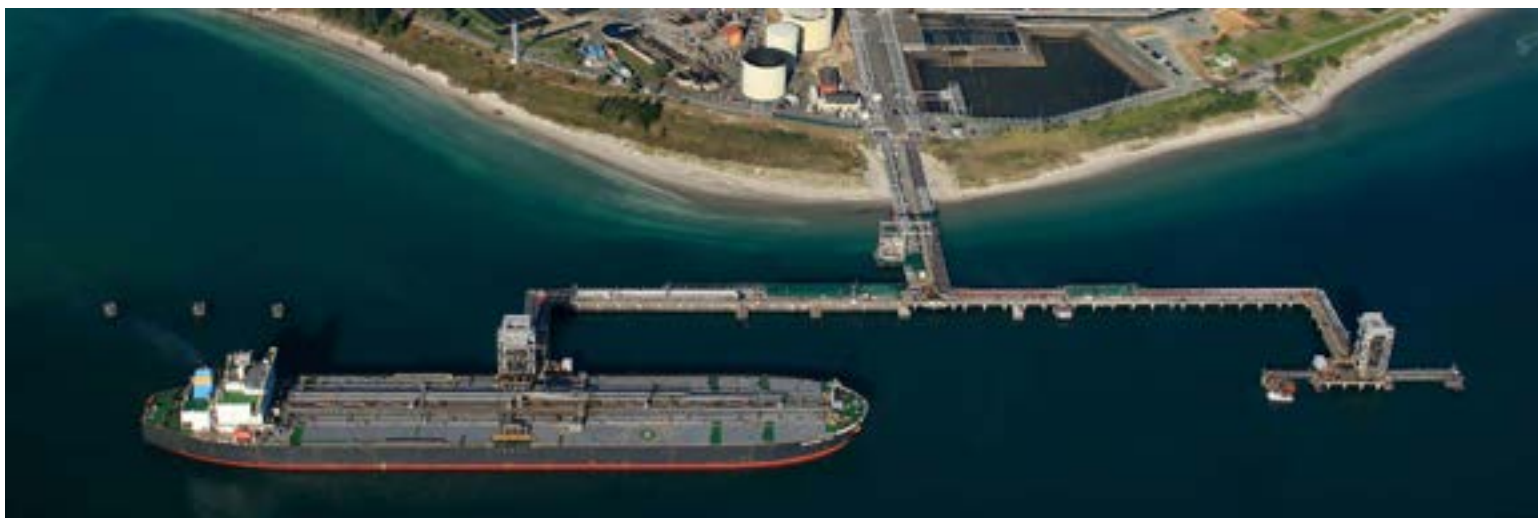
Although, in 2011, Cabinet approved policy proposals to transfer regulation of discharges from offshore installations and dumping in the EEZ and continental shelf from Maritime New Zealand to the EPA, the EEZ Act did not initially enact this policy proposal.⁸³ The rationale for the transfer, through a subsequent amendment in 2013, was that:⁸⁴

Transferring the regulation of discharges and dumping to the EEZ Act enables discharging and dumping to be assessed within the same consenting regime as other activities relating to the wider operation [of petroleum activities regulated under the Act]. This adjustment provides greater certainty and reduced compliance costs for industry, avoids inefficiencies from duplicating processes, enhances environmental effects management such as consideration of cumulative effects, and provides the opportunity for improved public and iwi participation.

The EEZ Act was duly amended.⁸⁵ Maritime New Zealand and the EPA are now expected to work closely together, and the EPA will provide Maritime New Zealand with any information which may assist in the performance of its functions, and vice versa.⁸⁶ This is particularly important because Maritime New Zealand retains significant functions under the Maritime Transport Act, including spill preparedness and response, regulatory functions relating to the design of ships, and jurisdiction over discharges from ships. The pragmatic logic behind the split jurisdiction is that Maritime New Zealand has specialist knowledge of shipping, and that the environmental, health and safety and international law components are intimately connected and can be discharged most efficiently through a single sector-focused organisation.



The boundary between the Maritime Transport Act and EEZ Act could be refined, so that the latter includes management of discharges from ships. “Environmental” jurisdiction under the Maritime Transport Act for things like oil spills could also be moved to the RMA and EEZ Act.



Oil tanker, Marsden Point

Revisiting the boundary between the RMA and Fisheries Act

When it comes to refining boundaries between outcome-based and sectoral statutes, more significant is the nature of the boundary between the RMA/EEZ Act and Fisheries Act.

As we said in the working paper:

When we look at the resource management system as a whole (and with some significant exceptions) the basic framing makes some sense.⁸⁷ Broad, outcomes-based statutes like the RMA, Biosecurity Act or Waste Minimisation Act apply to almost all sectors and seek the same outcomes irrespective of the environment or resource in question. Layers are then added *on top* of those to achieve *additional* (not *alternative*) outcomes for particular sectors (eg mining) and spaces....

This is not as obvious when it comes to oceans. A separate Fisheries Act creates a contested boundary with the RMA (and the EEZ Act). The arrangement is unique, because it creates a framework for managing human interaction with a particular living resource that is intimately connected to broader ecosystems, and for a quite different purpose. Not only that, it also seeks to manage the environmental impacts of fishing on the broader marine environment through sustainability measures. This aspect means that all three statutes can do the same or similar things for different reasons, and it is still not clear where one should start and the other should stop.

A spotlight on the *Motiti* decision⁸⁸

The *Motiti* case illustrates the confusion that can arise when statutory boundaries are defined with reference to subtly different purposes for which tools are used (ie where they are used to do the same or similar things for different reasons). The case focused on whether it was possible for a regional council to spatially protect parts of the marine environment from the impacts of fishing activity through provisions in its regional coastal plan. The impetus for the litigation was the grounding of the *Rena* on the Otāiti/Astrolabe reef in October 2011, and attempts by the Motiti Rohe Moana Trust to retain a fisheries exclusion zone around the reef, once the salvage operation had been completed.

The Court of Appeal stated that the RMA's purpose and the functions of regional councils would be, if not specifically carved-out, enough "to authorise a regional council to control fishing in the coastal marine area".⁸⁹ The question was whether there had in fact been a legislative "carve-out". Legislators had turned their mind to the interface between the two pieces of legislation, with section 30(2) of the RMA stating that a regional council must not perform certain functions "to control the taking, allocation or enhancement of fisheries resources for the purpose of managing fishing or fisheries resources controlled under the Fisheries Act 1996." It was the application of this section that was the focus of legal argument.

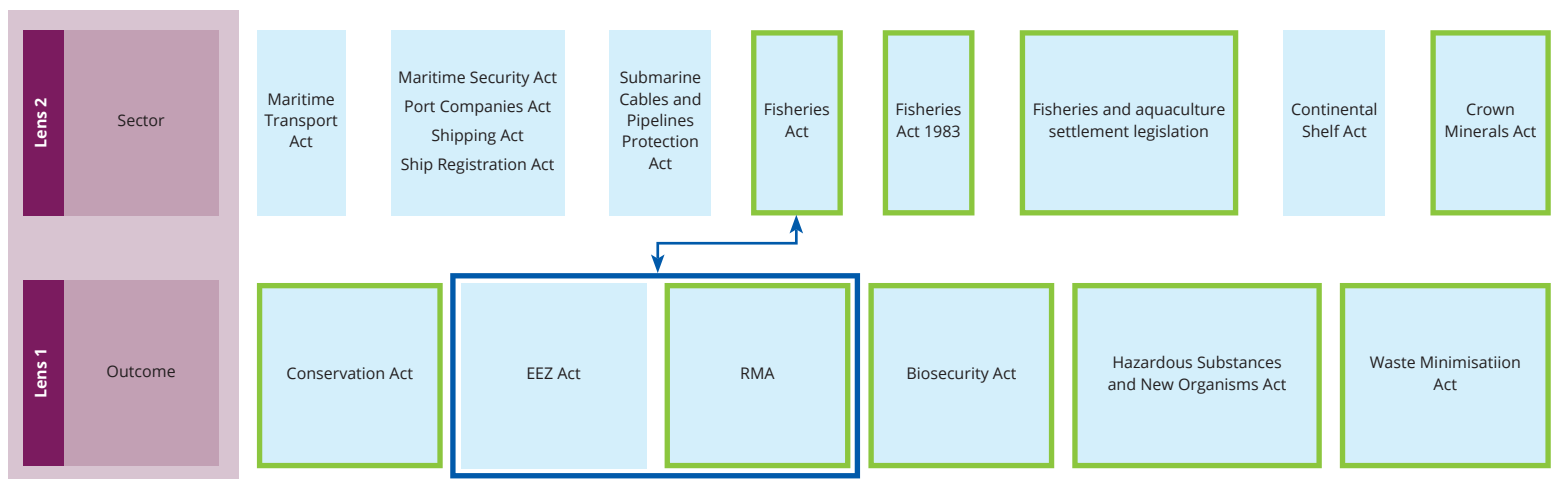


Figure 11.4: Reconsidering the boundary between the RMA and Fisheries Act

The High Court sought to reconcile the two pieces of legislation by concluding that the Fisheries Act was narrower, “focused on biological sustainability of the aquatic environment as a resource for fishing needs” whereas the focus of the RMA was broader, encompassing “ecosystems and their constituent parts (including people and communities), and all natural and physical resources”. Therefore, although the control of fisheries under the Fisheries Act would help achieve the broader purpose of the RMA, it “does not purport to address, let alone control, all the effects of fishing on the wider environment (including people and communities)”.⁹⁰

The Court of Appeal, for the most part, endorsed the reasoning of the High Court. Essentially, regional councils have the jurisdiction to take measures to prohibit or control fishing where it is for the purpose of biodiversity protection rather than fisheries purposes. However, questions remain about the interface. For example, the Court noted that whether an RMA restriction is lawful will depend on the factual setting, and a number of “indicia” will need to be considered:

- a) Necessity: whether the objective of the control is already being met through measures implemented under the Fisheries Act;
- b) Type: the type of control. Controls that set catch limits or allocate fisheries resources among fishing sectors or establish sustainability measures for fish stocks would likely amount to fisheries management;
- c) Scope: a control aimed at indigenous biodiversity is likely not to discriminate among forms or species;
- d) Scale: the larger the scale of the control the more likely it is to amount to fisheries management; and
- e) Location: the more specific the location and the more significant its biodiversity values, the less likely it is that a control will contravene s 30(2).

This leaves the door open for argument on a whole range of fronts. For example, would widespread restrictions on damaging fishing methods (eg dredging or bottom trawling) be lawful due to this “scale” of control? What about the case of a particularly sensitive inshore benthic ecosystem vulnerable to climate change

and land-based stressors – would the imposition of a lower bag limit or commercial catch limit for shellfish (the “type” of control) be lawful if it was needed to protect an ecosystem fundamentally reliant on, for example, densely packed mussels?

What if a restriction targeted a particular species (the “scope” of a control), not to protect that species, but because its protection was the only missing link in the chain to prevent ecosystem collapse (eg in the case of snapper and kina barrens)? And does the law effectively limit the role of councils to highly targeted areas of protection and prevent them from discharging their statutory responsibilities to protect marine biodiversity in its wider coastal marine area? This will be significant in terms of whether the RMA could be used to implement a meaningful network of protected areas. Currently, that ability seems dubious.

Such questions may also be significant in light of the climate change implications of bottom trawling.⁹¹ Councils have now regained jurisdiction in the RMA over the control of greenhouse gas discharges, which are released in significant quantities by trawling the seabed. Would councils have the ability to take action under the RMA for climate, not biodiversity, reasons? What if a council wished to retain the ecosystem services of shellfish in estuaries to filter pollutants coming down catchments? Or to prevent the harvest of seaweed that is useful for mitigating the effects of storm surges (a form of climate change adaptation, which they are specifically tasked with achieving)?

A number of other questions about the statutory interface remain unresolved. For example, the Court of Appeal noted that:⁹²

Some of the submissions before us indicate that in other circumstances conflict could arise between Māori commercial or customary fishing rights and the exercise of a regional council’s power to protect indigenous biodiversity. Notably, the New Zealand Māori Council, which is the fifth respondent, takes the position that s 30(2) would preclude a regional council from banning fishing in a taiāpure fishery. Other intervenors submit that when an area has been declared a taiāpure fishery it is unlikely that a council would find it necessary to ban fishing there in the interests of protecting indigenous biodiversity. We do not need to decide these points and we do not have all the information we might need

to do so. Still less can we decide whether or how s 30(2) would apply when Māori commercial fishing interests are engaged. That would raise Treaty considerations that have not been addressed in argument.

The *Motiti* decision illustrates the complexity of the statutory interface between the Fisheries Act and RMA, and has consequential implications for its interface with the EEZ Act as well. The growing complexity of the system as a whole can also be seen in the uncertain ways in which one could arguably influence another by a roundabout route. For example, the establishment of customary marine title under the MACA Act (which may eventually cover a significant portion of the coastal environment) allows title holders to require permission for certain activities requiring consent under the RMA.⁹³ Because of the *Motiti* decision, regional councils are likely to become more active in controlling certain fishing activities (possibly even requiring consent for some activities), and the extent of such jurisdiction remains unclear. This raises the possibility of rights under the MACA Act being exercised to manage fishing activities, even though there is no direct connection between it and the Fisheries Act.

Although many questions remain outstanding, the Fisheries Act's role in managing incidental impacts of fishing on marine biodiversity can be seen as a subset of that undertaken by the RMA and EEZ Act. This does beg the question as to whether the Fisheries Act should play a role in this area at all. If the RMA already provides a regime for managing the impacts of activities on marine biodiversity, why is there a need for sectoral legislation to do the same thing for a specific activity, let alone one that excludes RMA jurisdiction beyond lines that remain unclear and contested?

It is notable that we do not do the same thing elsewhere in the system. For example, the impacts of mining activities on the marine environment are still considered under the RMA and EEZ Act, in addition to a separate consent required to mine under the Crown Minerals Act and Continental Shelf Act.⁹⁴ Should a similar requirement not be placed on bottom trawling, which has effects of a similar nature to some forms of seabed mining?⁹⁵

One possibility could be for the parts of the Fisheries Act concerned with the protection of the marine environment from the incidental impacts of fishing, to be relocated to the planning and consenting framework of

the RMA (and EEZ Act), and for an active role to be taken by the Minister for the Environment or Conservation in establishing mandatory national direction on the subject. This would be similar to how climate change mitigation is being approached in terms of the interface between the Climate Change Response Act and the RMA (where councils' ability to consider the impact of climate change emissions is being reinstated under the RMA, but their commencement has been delayed so the Ministry for the Environment can put in place national direction on the matter).⁹⁶ Here, the Fisheries Act would essentially become a vehicle for fish stocks to be managed, allocative decisions to be made (eg setting the respective shares of a stock between recreational, customary and commercial fishers), and for the complex mechanics of the QMS.



The boundary between the RMA/EEZ Act and Fisheries Act could be clarified by clearly shifting responsibility for the incidental impacts of fishing activity on the marine environment to the former. The Fisheries Act could be left as a means to allocate and manage fish stocks themselves.

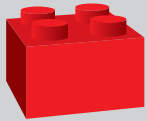
However, this still does not provide a clear line of division. Harvesting fish (not just the externalities created by the method of doing so) can have cascading impacts up and down food chains with consequent broader implications for the marine environment. This is evidenced by the kina barrens on the north-east coast of the North Island. So should catch limits (the TAC) be set under the sectoral Fisheries Act, or could they be brought under the broader umbrella of the RMA?

Catch limits *could* conceivably be imposed within a broader purpose of sustainable management or a more modern formulation like *te oranga o te taiao*. This would reflect the importance of assessing fishing pressures in the broader context of ecosystem health, other activities like coastal development and sedimentation, climate change, and values more akin to *te mana o te wai* (eg that the “needs of the ocean come first”). Moreover, allocative decisions (setting the TACC) need not necessarily be made under the same framework as limit setting ones (setting the TAC). For example, coastal tendering processes under the RMA are a separate step to the subsequent consenting process.

This begs the question: should the Fisheries Act become a narrower framework for allocating a resource within environmental limits – including catch limits – rather than a place where those limits are set in

the first place?⁹⁷ Could there even be two distinct limit setting processes – an “ecological catch limit” under the NBA to which a Fisheries Act TAC would be subject?⁹⁸ That may involve excessive duplication of effort, and it is questionable whether a TAC aiming to enhance yield would ever be lower than an ecological catch limit (calling into question the point of having both).

Locating limit setting and other sustainability measures under the RMA (or its replacement) would also bring with it greater participatory rights and potentially both greater local/regional control and the rigour of an Environment Court process.⁹⁹ It might even allow more spatial nuance (to prevent local depletion rather than setting a limit for a whole QMA). We are not saying whether this would be a good idea or not – it is simply a debate to be had.



A sectoral Fisheries Act could remain as a home for the QMS and other allocative mechanisms like a TACC, with all sustainability measures (including the TAC) being set under an expanded NBA (at a central or regional level).

Even if we were to accept that fish stocks should be managed under something more akin to the RMA's purpose (by no means a settled conclusion), there may still be compelling reasons to retain separate legislation for the setting of catch limits and even other sustainability measures.

One reason might be that the nature of the tools are quite different. For instance, a TAC for a stock needs to be agile (set every year) and aligned with changes in stock size which may not align with the extensive timeframes required for plan changes and reviews. Because of the sheer number of fish stocks and operators, it could not easily be achieved through a consenting process either. In setting a TAC, RMA jurisdictional boundaries (regions) also do not coincide with administrative boundaries (QMAs), meaning that a system within a system would need to be created under the RMA.¹⁰⁰ Would it not just be simpler to amend the purpose of the Fisheries Act itself, and revisit the concept of MSY?

Another pragmatic element is the institutional arrangements that surround the use of tools. A central government institution like Fisheries New Zealand can attract a concentration of expertise and has the clear function of administering an act focused on intimately connected fisheries measures that involve complex, lengthy and highly scientific exercises



Raewyn Peart

Commercial fishing vessel, Nelson

and a deep understanding of fish stock dynamics. A similar choice can be seen in the inclusion of restrictions on discharges from ships under the Maritime Transport Act instead of the EEZ Act, because Maritime New Zealand is practically well positioned to deal with all things “shipping”.

There are practical reasons to suggest that tools for setting catch limits and other mechanisms for managing fish stocks themselves (eg bag limits, seasonal closures) might be better placed under a separate framework like the Fisheries Act.

Refining the boundary between species-based legislation and the Fisheries Act

It is not just the RMA that has a fraught relationship with the Fisheries Act. So too do “domain” based statutes protecting marine species, such as the Wildlife Act and the Marine Mammals Protection Act. A future system could refine the boundaries between these types of statutes as well.

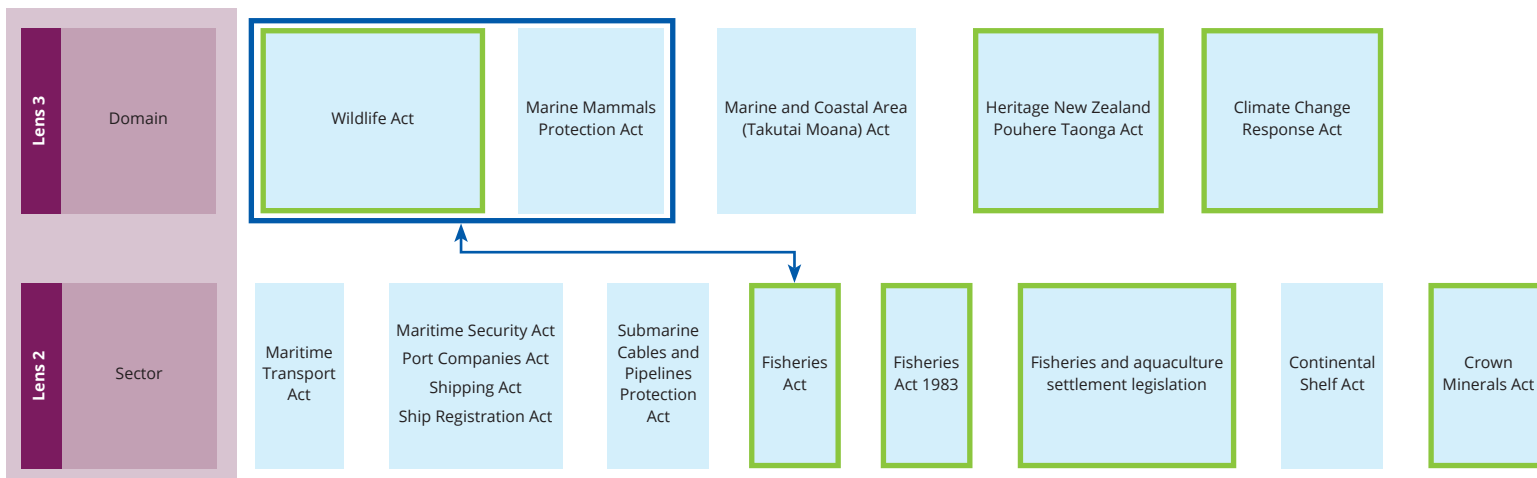


Figure 11.5: Reconsidering the boundary between species-based legislation and the Fisheries Act

A spotlight on the Māui dolphin

The Māui dolphin is facing extinction. The dolphins are found along the west coast of the North Island, and are concentrated in the area between the Kaipara and Aotea harbours, but in the 19th century they were thought to occupy the entire west coast of the North Island as well as the east coast up to the Bay of Plenty.¹⁰¹ The dolphin is between 1.2 to 1.7 metres long, lives for about 20-25 years, and the female reproduces around four to six calves over her lifetime.¹⁰² Māui dolphins are considered “critically endangered” by the International Union for the Conservation of Nature and as “nationally critical” by the Department of Conservation. The most recent estimate of the Māui dolphin’s population is 57 individuals over a year old.¹⁰³

Until recently, set net fishing and trawling were considered the two major threats for the Māui dolphin. Dolphins can become tangled in nets and drown. They can also be hit by boats and their propellers.¹⁰⁴ Seismic surveying and seabed mining are also considered to carry substantial risks due to their loud noise and (for seabed mining) disturbance of the seabed and discharge of sediments.¹⁰⁵ Noise and pollution can displace the dolphins from their habitat and make it harder for them to hunt and produce offspring.¹⁰⁶ The noise may interfere with the sounds Māui dolphins use to communicate and potentially cause hearing damage.¹⁰⁷

As such, the two main measures taken to protect the Māui dolphin are orders prohibiting set netting and trawling in defined spatial areas (made by the Minister of Fisheries under section 15(2) of the Fisheries Act), and the establishment of marine mammal sanctuaries with associated restrictions affecting seismic surveying, seabed mining and some fishing methods (created by the Minister of Conservation under the Marine Mammals Protection Act).

In 2001, the Minister of Fisheries decided to place a prohibition on set net fishing on the west coast of the North Island from Maunganui Bluff to Pariokariwa Point, and offshore to four nautical miles, under the Fisheries Act. This decision was overturned by a successful challenge in the High Court by commercial fishers and remitted back to the Minister for reconsideration.¹⁰⁸ In the week of the case, two Māui dolphins washed up onshore wrapped in fishing nets.¹⁰⁹ In 2003, the Minister remade his decision which confirmed the set net exclusion area and extended it to include the Manukau Harbour. The court proceedings, therefore, did not prevent the protections but delayed them for two years.

In 2008, after the preparation of a non-statutory threat management plan, the existing set net exclusion area under the Fisheries Act was extended out to seven nautical miles, and a further ban on the fishing method was imposed from the Manukau Harbour down to Port Waikato out to four nautical miles.

Additionally, a marine mammal sanctuary which restricted seabed mining and seismic activity, was created from Maunganui Bluff to Oakura Beach along 2164 kilometres of coastline out to 12 nautical miles.

The 2008 measures under the Fisheries Act were also successfully challenged in the High Court by commercial fishers with the matter again sent back to the Minister for reconsideration.¹¹⁰ The Court granted interim relief to the applicants, which had the effect of allowing set netting to continue between four and seven nautical miles.¹¹¹ This relief was to lapse if any Māui dolphins were killed.¹¹² In 2011, the Minister reconsidered his decision and maintained the proposed measures. Again, the court proceedings did not prevent the additional protections, but delayed their application by several years.

In 2012, a fisherman reported that a Māui dolphin had been caught. This prompted the further review scheduled for 2013 to be brought forward. Interim protection measures were put in place.¹¹³ These measures extended the recreational and commercial set net ban south from Pariokariwa Point to Hawera and offshore to two nautical miles. Commercial set netters in this area could only operate between two and seven nautical miles with an observer on board. Additionally, the Minister of Conservation and the Minister of Energy and Resources released the Code of Conduct for Minimising Acoustic Disturbance to Marine Mammals from Seismic Surveys Operations.¹¹⁴ This Code was more protective than the existing marine mammal sanctuary restrictions, and mitigation measures were required across the entire historic range of the dolphin out to the 100 metre depth contour.

In 2013, the threat management plan was updated with the interim measures made permanent. The West Coast North Island marine mammal sanctuary was varied to ban commercial and recreational set netting between two and seven nautical miles, extending the existing ban south from Pariokariwa Point to the Waiwakaiho River. This was notable, as the fishing restrictions were promulgated under the Marine Mammals Protection Act this time, and not the Fisheries Act.

The Crown's actions were challenged in the Waitangi Tribunal in 2016 for allegedly failing to give due regard to the kaitiaki interests of Ngāti Te Wehi and Ngāti Tahinga.¹¹⁵ The claimants

maintained that the 2013 threat management plan “fails to adequately protect Māui’s dolphin from likely extinction and is therefore in breach of the Treaty of Waitangi.”¹¹⁶ The Tribunal accepted that the Māui dolphin is a taonga to Ngāti Te Wehi and Ngāti Tahinga due to its endangered status. The Crown agreed that there was a Treaty duty to take reasonable steps to protect Māui dolphins, but argued that it may choose between different options of protection as long as it is done reasonably and in good faith.¹¹⁷ Ultimately, the Tribunal found that the review of the threat management plan and associated consultation was not in breach of te Tiriti, nor was the substance of the plan itself.

A second review of the threat management plan commenced in 2018. In 2020, the set net ban was once again extended. It now covers the entire west coast of the North Island from Cape Reinga to Wellington.¹¹⁸ Trawling was prohibited within the Māui dolphin habitat from Maunganui Bluff to the Waiwhakaiho River, and drift nets were banned universally in the country’s waters. The West Coast marine mammal sanctuary was extended south to Wellington. Seabed mining and seismic drilling were banned in the sanctuary, but with exemptions available including existing permits or nationally significant projects.

A Toxoplasmosis Strategic Science Advisory Group was also established to deal with the emerging threat of disease to the dolphin. Developing a way to test the level of toxoplasma in water will be crucial to assessing the efficacy of management measures.

The emerging recognition of toxoplasmosis as a threat to Māui dolphins (among a wide range of other threats such as habitat loss, climate change,¹¹⁹ chemicals like pesticides¹²⁰ and plastics)¹²¹ indicates the need for an integrated “mountains to sea” and cross-sectoral approach to addressing threats. It is likely measures will be required that are well outside the mandates of the Minister of Fisheries or Minister of Conservation.

Furthermore, the interface between the Fisheries Act and Marine Mammals Protection Act, when it comes to managing the impacts of fishing on marine mammals, is somewhat opaque. Spatial measures to protect the dolphins have been put in place under both acts, at various times, but each piece of legislation has a

very different purpose. Creating set net bans under the Fisheries Act, means that the evaluation of options is subservient to the purpose of that Act, which is sustainable utilisation rather than population recovery (which is required to reduce the chance of extinction).¹²² It is notable that the successful High Court judicial review challenges were both mounted on restrictions placed under the Fisheries Act and not the Marine Mammals Protection Act. However, some have argued that using marine mammal sanctuaries to regulate fishing activity would “lead to duplication in resources and confusion amongst stakeholders about rules and responsibilities”.¹²³



Raewyn Peart

Hector's dolphin, Akaroa harbour



Figure 11.6: Spatial protections for the Māui dolphin Source: Ministry for Primary Industries, July 2020

One way forward might be to more clearly define the boundary between the Fisheries Act and the Marine Mammals Protection Act (and Wildlife Act) so that sectoral legislation is no longer responsible for the impacts of fishing or mining on marine mammals.¹²⁴ That might address concerns about “duplication in resources” and “confusion amongst stakeholders”. Arguably all the tools to protect the Māui dolphin should have been contained within a statute focused on achieving that specific outcome. Instead, multiple authorities have been left to assemble a range of discretionary tools from diverse frameworks with questionable purposes, over an inordinate amount of time. Acts like the Marine Mammals Protection Act may also need to extend their reach to create new tools (or drive the deployment of tools elsewhere, such as bylaws under the Local Government Act).

In terms of legislative design, arguably domain-based acts like the Marine Mammals Protection Act should form a clear and distinct secondary lens. A tertiary lens – focused on sectors like fisheries – could then produce legislation that fills genuine gaps (we would not put the QMS in the Marine Mammals Protection Act, for example), but it would not be expected to perform the core roles of domain-based statutes (the protection of wildlife, eg as bycatch).

In clarifying the order of these lenses, we need to ask who the audience or “customer” of a statute should be. Is it sectoral stakeholders, expecting tailored and non-confusing tools under a fisheries framework? Or is it a Māui dolphin, king shag or oystercatcher, expecting a coherent range of controls spanning several human activities that would enable it to survive the decade? An alternative is that these statutory boundaries remain unchanged, but that there is a stronger link made between population thresholds or conservation status and the tools required to do something about it.

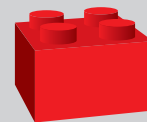
Similar things might be said about other threatened species, such as some seabirds and shorebirds. Here, the Wildlife Act might in the future be

expected to provide a wider range of tools (eg those currently contained in the Fisheries Act concerning bycatch, as well as things like bylaws for vehicles on beaches and orders to protect key habitats on private land) or to be more clear and directive about what triggers their deployment under other statutes.

Legislative design in the context of “emergencies”

It is interesting to compare other legislative design approaches where something is considered to be an “emergency”. Climate change is a recent example, where a dedicated sector-spanning statute is devoted to decarbonisation irrespective of the overall costs of getting there. But there are others. To address the risk of marine oil spills, we have a dedicated agency (Maritime New Zealand) tasked with deploying a clear and integrated toolkit to ensure prevention, cleanup and liability. Similarly, natural disasters invite a swift response from authorities focused solely on the emergency at hand.

Faced with extinction, the plights of nationally critical species are also environmental emergencies. Yet they lack a similar legislative focus, relying instead on the ebbs and flows of political interest and public awareness to drive deployment of tools fragmented across many pieces of legislation. Indeed, the Department of Conservation website proclaims that “in many countries, species listed as threatened automatically receive legislative protection from hunting, habitat destruction and other threats. In Aotearoa New Zealand, there is no direct link between conservation status and legal protection.” That is partly due to protections being contained in many different statutes administered by many different entities.



A future system could clarify the relationship between the Fisheries Act and “domain” based legislation like the Wildlife Act and Marine Mammals Protection Act. This could be done by making it clearer that tools under the latter statutes are to be used in an integrated way to achieve domain-based outcomes like the protection of threatened species, rather than relying on tools deployed under sectoral frameworks.

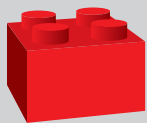
Raewyn Peart



Dolphin watching vessel, Bay of Islands

Marine mammals and seabirds are one thing, as they are not commercially harvested. The relationship with the Fisheries Act is therefore about managing incidental effects (eg bycatch). However, this boundary raises another interesting question about the extent to which “fish” themselves should be managed under domain-based legislation (eg the Wildlife Act) focused on the fish itself, or a sectoral act focused on *fishing*. At the moment, some fish are managed under the former (eg great white sharks and rays) while others (ie harvestable ones) are managed under the latter.

The distinction is both between values (we do not want to fish great whites) and threats (commercial fish species are not generally threatened). However, there is a question as to whether a *collapsed* fish stock should be managed more as a conservation issue rather than a resource/sectoral one. For example, a decline below a soft or hard limit under the Fisheries Act might trigger an automatic switch in management frameworks, reimagining the boundary between sectoral and conservation laws. That would be more akin to how most freshwater fish are managed,¹²⁵ and has the potential advantage of allowing complementary management measures by the Department of Conservation (eg MPAs, sanctuaries) and mana whenua (via the MACA Act)¹²⁶ to be aligned with the rebuilding of a stock. Essentially, this would flip the status quo on its head, and see domain-based laws requiring the concurrence of the Minister of Conservation for (some) fishing activity.



The management of some fish stocks, such as those that have “collapsed” or breached a limit, could switch from the Fisheries Act to a revamped Wildlife Act.

Expanding the scope of some lenses

As well as refining boundaries between *different* lenses, we could expand the *scope* of what some lenses do. For example, this could involve extending the types of things sought by outcome-based legislation like the RMA/NBA, EEZ Act and Conservation Act.

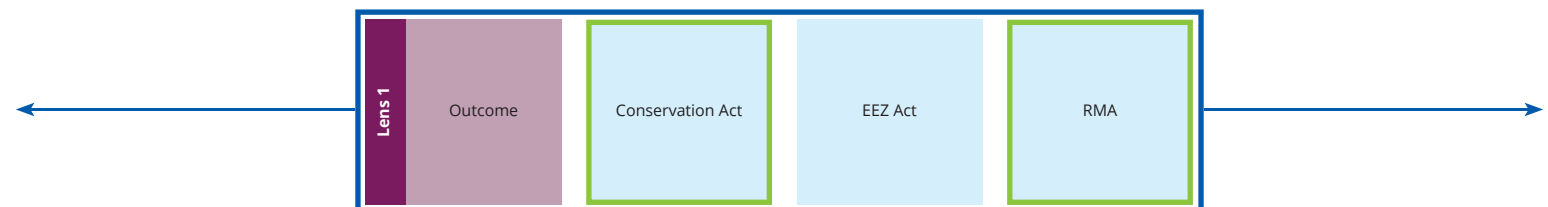


Figure 11.7: Expanding the scope of what some lenses do

Here, we can ask: is there a broad marine outcome not currently sought by these statutes that applies across all sectors, spaces and domains? If so, it might warrant inclusion in these general acts. For instance, the Randerson Panel has recommended that the NBA be more about proactively seeking positive outcomes and environmental restoration than the RMA (which is arguably more about addressing adverse effects). It even provides an indicative list of what those might be. Yet the list does not have a specific or strong focus on marine restoration, or other outcomes like the synergistic benefits from green infrastructure, sustainable aquaculture, or marine carbon farming. The extent to which the NBA should include even broader outcomes relating to sustainable marine development (eg offshore aquaculture, offshore wind and tidal energy, development of blue highways, tourism, diversification and export opportunities) may depend on what our objectives for the marine environment are and the extent to which the system should have a role in this area at all (see Chapter 6). But if the system does encompass aims for the “blue economy”, then it may make sense to include these in outcome-based statutes, rather than dealing with them piecemeal in separate sectoral acts (as we do for the economic development goals of fishing and mining).

The Randerson Panel has also recommended that the NBA impose a clear category of marine “limits” rather than just providing a framework for making trade-offs (see Chapters 4 and 8). This would potentially reduce the need for firm limits to be imposed on a domain or sectoral basis to fill gaps. While the Panel’s terms of reference did not extend beyond the coastal marine area, the same could be said for the broadly similar EEZ Act.

The outcomes sought by the RMA, EEZ Act and Conservation Act could be expanded in other ways, including by tackling allocative questions in the marine space. While allocation of some things does already *happen* under those acts, it is largely done almost incidentally through the ad hoc granting of consents and concessions, and lacks any real purpose or outcome sought. These acts could provide an overarching set of allocative principles (including those relating to Te Tiriti and building on the *Ngai Tai* case) even where the actual mechanism for allocation of some resources remained elsewhere (eg the QMS under the Fisheries Act, mining permits

under the Crown Minerals Act, and customary rights under the MACA Act). For example, such principles could be a mandatory consideration when a Minister is releasing offshore acreage for minerals exploration, determining whether to buy back and redistribute fishing quota, or setting a TACC to allocate a share fish stock between recreational and commercial harvesters.



The scope (ie the kinds of outcome) sought by statutes like the RMA, EEZ Act and Conservation Act could be expanded to include more specific and proactive objectives for the marine environment, including those relating to a sustainable blue economy, the defence of strict environmental limits, and the allocation of resources (or the distribution of value from their use).

Other layers of legislation could also be expanded. Adding more place-based legislation (see Figure 11.8) could be the mechanism for creating bespoke MPAs (eg for the Hauraki Gulf) or integrating the use of tools under other frameworks (eg fishing controls, wildlife sanctuaries and RMA rules). That may be necessary in practice to accommodate place-based te Tiriti settlement legislation. Alternatively, more tool-based legislation could be used to create new categories of MPAs (eg seabed reserves) that could be deployed across all of the marine space (see Figure 11.8).

Sectoral legislation could be added to as well (see Figure 11.9), if there were considered to be gaps (in that we do not currently regulate all marine sectors). This could, for example, see the Crown Minerals Act expanded to accommodate other potential uses of sub-seabed space like carbon

capture and storage (and to resolve allocative tensions between the sectors). Indeed, this may be a necessary step given that the tools required go well beyond what is contemplated by the RMA.¹²⁷ Marine tourism could get its own statute, reflecting the need to more proactively regulate tourist activities that are not already dealt with in existing statutes (in other words, it could fill gaps).¹²⁸

Although it is not clear whether sectoral legislation would be needed to fill gaps, or whether it would instead facilitate questionable carve-outs, some have floated the idea of bespoke statutes for offshore aquaculture and offshore energy. And an infrastructure focused “sectoral” statute akin to the Land Transport Management Act on land could be enacted to drive the deployment of ecological infrastructure, including funding and delivery mechanisms (resembling a Land Transport Fund) and legal tools to protect it (similar to those preventing interference with submarine cables and pipelines).



Tourism operation, Hahei



Figure 11.8: Expanding place-based legislation

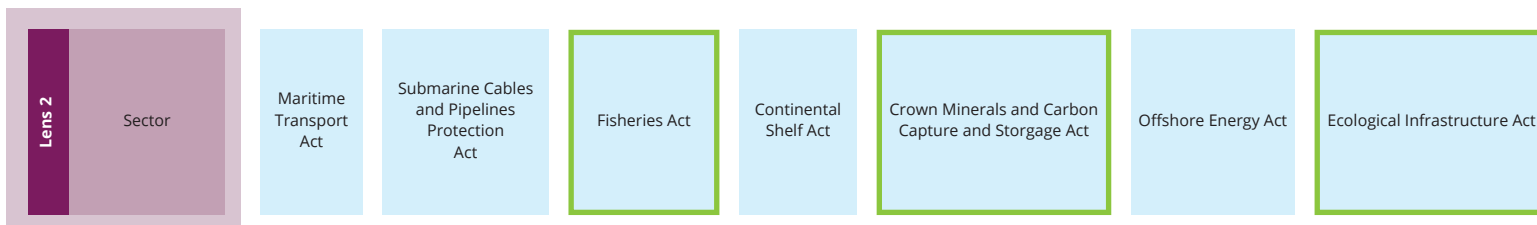
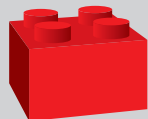


Figure 11.9: Expanding sectoral legislation



Other layers of legislation could be expanded in a future system. This could see the enactment of more place-based legislation to protect particular areas, tool-based acts to create new types of MPAs, or new sectoral statutes for tourism, offshore energy, or ecological infrastructure.

Reshuffling boundaries within lenses

If lenses were to be expanded (eg adding new sectoral acts like an Offshore Wind Energy Act) that begs the question as to whether these should be a series of separate statutes or integrated into existing ones. Going further, we can ask whether existing statutes within any given lens (eg all our existing sectoral legislation) should be split up differently (see Figure 11.10).

Integrating some would not make sense, such as the Fisheries Act with the Crown Minerals Act or Maritime Transport Act. These have quite different purposes (sectors are managed for distinct reasons), and while there are some interfaces (eg exclusion zones around mining operations can impact on access to fishing grounds) these are heavily outweighed by the amount of content having no bearing on other frameworks. Their targeted focus would not justify stitching them together in a “Marine Industries Act”. This would only increase complexity for individual regulated sectors.

Yet, curiously, we also have a lot of separate legislation that is concerned with the *same* sector. Here, there is an opportunity to tidy up the statute book and reduce complexity in the system. Most obvious would be the integration of any relevant provisions of the Fisheries Act 1983 with the more modern Fisheries Act 1996. Indeed, a recent Cabinet paper proposes:¹²⁹

to take this opportunity to repeal the Fisheries Act 1983. The Fisheries Act 1983 is the precursor to the Fisheries Act 1996 and its remaining provisions are redundant.

While there are good reasons to keep Te Tiriti settlement legislation for fisheries and aquaculture separate from broader sectoral legislation,¹³⁰

consideration could still be given to integrating some elements. Again, much might depend on who the primary audience or user of the legislation is seen to be (eg mana whenua or the regulated fishing community).

When it comes to mining, it would make a great deal of sense to combine the Continental Shelf Act with an expanded¹³¹ Crown Minerals Act, given that almost all of the former (concerned with mining beyond the territorial sea) is designed to be implemented through the machinery of the latter anyway. The few provisions that are not targeted at oil and gas exploration could be integrated into other frameworks.¹³²



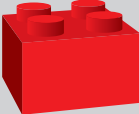
Some legislation within a sectoral layer could be integrated, such as by merging the Continental Shelf Act with the Crown Minerals Act or the Fisheries Act 1996 with the largely redundant Fisheries Act 1983.

It would also not seem beyond the pale for legislation concerning submarine cables and pipelines to be subsumed within a statute like the Maritime Transport Act, given the threat it is managing is largely from ships (eg anchoring and trawling). And several standalone acts concerned primarily with shipping and already administered by Maritime New Zealand, such as the Maritime Security Act and the now largely skeletal Shipping Act, might be candidates for inclusion in the broader Maritime Transport Act.

There is also the potential to provide greater sectoral integration across the transport system by combining *maritime* transport legislation with *land* transport statutes (like the Land Transport Act and Land Transport Management Act). Some things are similar (eg the provision of infrastructure by public authorities, and rules around safety such as speed limits and closure of transport routes). Moreover, we do not make the same distinction between other sectors; we don't have a separate *Marine* Crown Minerals Act.¹³³ Combining legislation could provide more integrated management of how freight and people are moved around the country.

However, there are important differences too. For instance, the complexity of transport infrastructure funding on land is greater than at sea (where the public purse needs to pay for things like wharves, lighthouses and buoys, and not roads and railways). International legal requirements, which are extensive for shipping, are non-existent on land. And separation of operational institutions (Maritime New Zealand and the New Zealand Transport Agency) reflects the workability of a hard boundary between land and sea, where completely different forms of transport are used. Broader strategic connections within the transport system are managed not at by these operational institutions but within an integrated Ministry of Transport.

Statutes created through an “administrative” lens could also be rationalised. For example, would it not be possible to establish and frame the functions of the EPA in the Environment Act alongside those of the Ministry for the Environment and Parliamentary Commissioner for the Environment? Or for the Territorial Sea, Contiguous Zone and Exclusive Economic Zone Act to be subsumed within another, like the MACA Act, that deals with ownership and jurisdiction in the marine space? Such reforms might be a “nice to have” rather than a driver for reform.



Maritime transport legislation could be integrated into a single Maritime Transport Act. Greater integration between terrestrial and maritime transport legislation might also be possible.

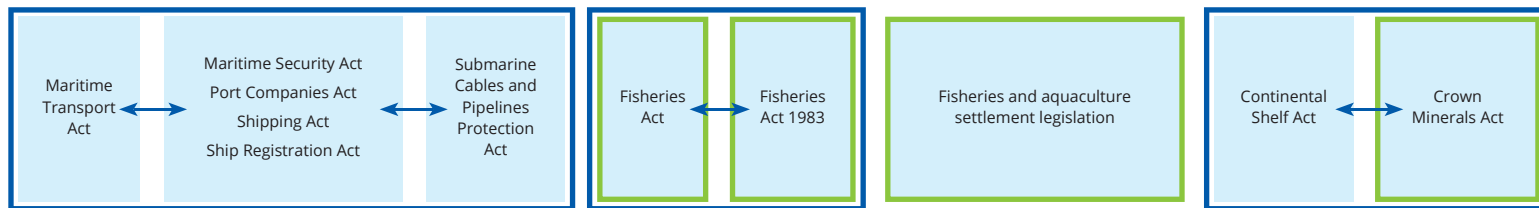


Figure 11.10: Reconsidering the boundaries between sectoral legislation

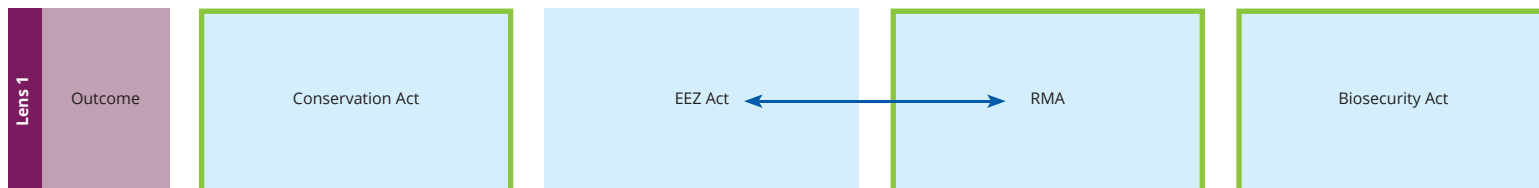


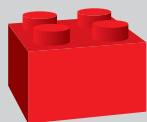
Figure 11.11: Reconsidering the boundaries between outcome-based legislation

Boundaries arguably matter much more when it comes to how different domain based and outcomes-based statutes are split. For instance, outcome-based acts like the RMA and EEZ Act could be divided in fundamentally different ways in a future system (see Figure 11.11).

One option would be simply to combine them. This would recognise that the 12 nautical mile line between the frameworks is arbitrary when it comes to the environmental focus of the statutes, that cross-boundary management adds complexity, and that the division can create perverse incentives for the location of potentially harmful activities.¹³⁴ Separate statutes doing the same basic things on each side of an artificial line may threaten effective ecosystem-based management. And it is not clear that the statutes need to have fundamentally different purposes and principles (including relating to te Tiriti o Waitangi) when they manage activities that might only be inches apart. Or whether they need a completely different approach to mandatory tools (eg a compulsory NZCPS versus a policy document void in the EEZ).

This would not necessarily require institutional responsibilities to be reconsidered, (eg the roles of the EPA and regional councils) or for the full extent of RMA tools (or principles) to operate in the EEZ. In particular, the law would need to be sensitive to the different nature of sovereign rights and international freedoms beyond the territorial sea.¹³⁵ And there are reasons to have some distinction in the management of the EEZ; for example, it is arguably beyond the capabilities of regions to administer, it may have more of a central than regional government interest in its management, it can get by with a simpler framework due to its low density of people and fewer applications, and it has different arrangements under international law. However, these features can

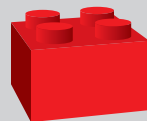
arguably be reflected in different planning, institutional and funding arrangements within a single statute, distinctions which are already made when it comes to land and sea under the RMA.



The EEZ Act could be integrated within an expanded RMA/NBA, so that the latter encompassed all the country's marine jurisdiction.

Alternatively, the RMA and EEZ Act could be split in a different way: with a land and coastal focused piece of legislation extending out to (say) three nautical miles, and an oceans focused statute applying beyond that boundary. This could reflect a more targeted focus for regional councils (the primary marine planners and regulators under the RMA) on the interface between catchments, land and the coastal environment, and an expanded role in the remainder of the coastal marine area for the EPA as a national-level arm's length regulator. In that case, the EEZ Act may need to be strengthened to have more of the rigour of the RMA (including the development of policy statements of at least the same pedigree as the NZCPS). It would also require a rebrand, given that it would no longer be about just the EEZ.

It is not immediately clear that changing marine boundaries in this way would be worthwhile, and we have heard different perspectives on this in workshops. An ecological justification for an arbitrary three nautical mile limit might be as hard to find as a 12 nautical mile limit. Such an approach could also cause difficulties with respect to the relationship between this legislation and the MACA Act, in that the latter extends to the 12 nautical mile mark. The same question about geographical boundaries arises when we consider the potential for an integrated Oceans Act further below.



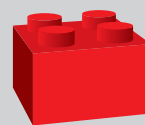
The boundary between the RMA and EEZ Act could be redrawn at a line that arguably makes more ecological sense. This could make the RMA a statute concerned with the land-sea interface (eg out to around three nautical miles) and the EEZ Act about the deeper sea environment.

Another way of thinking about the split between the RMA and EEZ Act (and other outcome-based acts like the Conservation Act) is whether we should have a separate statute for environmental limits. Currently, it can be unclear whether a provision is a true limit (see Chapter 3), or even if

hard limits are required at all.¹³⁶ However, identifiable limits do exist (eg for marine dumping), even if many rely on international law as their basis.¹³⁷

The Randerson Panel has recommended that limits be set as a discrete category of tool in a new NBA,¹³⁸ which would have their own bespoke purpose (as do water conservation orders). However, a bespoke purpose begs the question whether limits should be found in separate legislation. Instead of sustainable management (or *te mana o te taiao/moana*), a separate statute focused on limit setting in the marine environment could have a more uncompromising outcome at its heart: like ensuring a safe space above ecological collapse. This could even incorporate different types of limits currently contained in other legislation, such as prohibitions on products (eg microbeads and single use plastic bags) under the Waste Minimisation Act and mortality limits under the Marine Mammals Protection Act. As mentioned in Chapter 8, other tools could be regarded as limits and put into a separate Act, such as some fisheries sustainability measures, no-take MPAs, and emergency "orders".¹³⁹ Trade offs could then be made under a separate RMA/NBA as long as they complied with those limits.

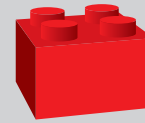
Redefining this boundary based on limits could have tangible environmental benefits, in the same way that strong protections for national parks are not left to be managed through RMA controls. On the other hand, if the RMA and EEZ were not split in this way, it may be important for a strong statutory split to remain between these acts and a more protection oriented Conservation Act.¹⁴⁰



The RMA and EEZ Act could be split into an "Environmental Limits Act" and another act concerned with making trade-offs and allocative decisions through value-based plans.

Conservation legislation is interesting in another sense. Currently, we have a split between a broad outcomes-based act (the Conservation Act) and more focused domain (species) focused legislation (the Marine Mammals Protection Act and Wildlife Act). If we are thinking about rationalising legislation *within* lenses, it might be possible to combine the latter two into a revamped Protected Species Act. That might break down the arbitrary distinction between the protection of different species in the marine area, and rationalise potentially overlapping tools like marine mammal sanctuaries (which have been used in the marine area) and wildlife sanctuaries (which have not). That said, the Wildlife Act is currently very broad – it applies to introduced species that are

not protected in the more modern “conservation” sense of the word. If it were to be combined with the Marine Mammals Protection Act careful thought would need to be given as to whether management of introduced species should be carved off elsewhere, with the legislation instead being about the conservation of protected indigenous species.¹⁴¹



The Wildlife Act and the Marine Mammals Protection Act could be combined.



Figure 11.12: Reconsidering the boundaries between domain-based conservation legislation

Raewyn Peart

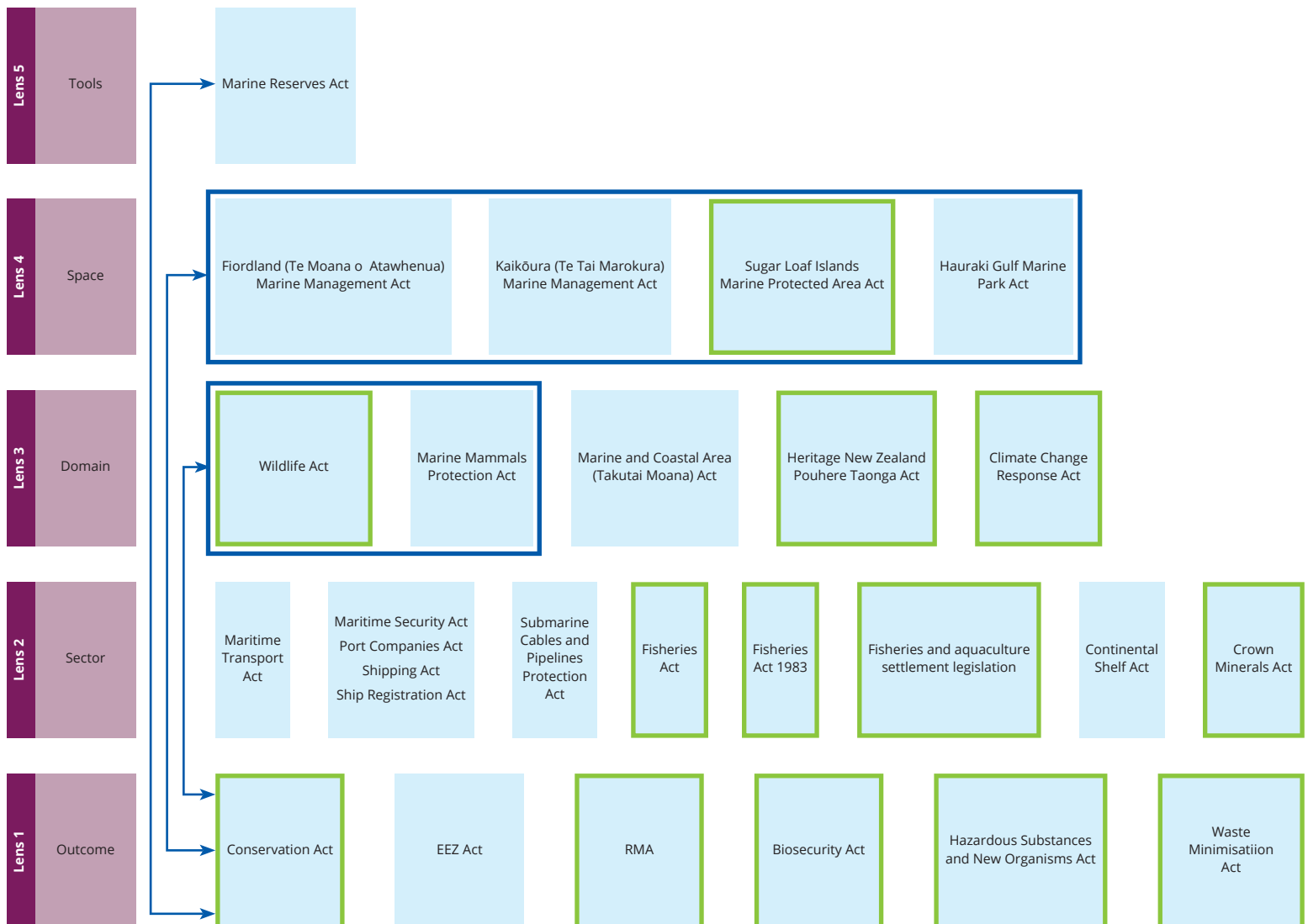


Variable oyster catchers, Thames

Integration across different lenses

As well as reimagining the boundaries between different outcome-based statutes, we could consider if statutes created through other lenses could be integrated into them. Earlier, we mentioned the possibility of completely merging the sectoral Fisheries Act into the RMA/EEZ Act. That might not be possible if the purposes of those acts remained misaligned, which may be for good reason. Fisheries are managed for quite different (or additional) purposes than broader ecosystems.

There is also a question as to which framework is most appropriate



for addressing the biosecurity risks of the shipping sector. Although regulations made under the Biosecurity Act by the Ministry for Primary Industries are currently used to address things like biofouling (eg *the Craft Risk Management Standard: Biofouling on Vessels Arriving to New Zealand*), that could instead be addressed under the Maritime Transport Act. It may be more of an institutional design question, however, in that some things might be better done within legislation administered by the more technically capable entity.

A more compelling case might be made for greater integration of domain-based, tool-based and place-based conservation legislation (see Figure 11.13).

Figure 11.13: Reconsidering the boundaries between domain-based, tool-based and place-based conservation legislation

While the Conservation Act performs a “connecting” role across a galaxy of conservation legislation (not least by coordinating the roles of the Department of Conservation, conservation boards and the Conservation Authority, and applying a single Te Tiriti clause), one can ponder whether all this should be shifted into a revamped Conservation Act itself. This would recognise the importance of managing both species and protected areas in an integrated way across the land-sea boundary, across which marine mammals, seabirds and other species travel. It would give a more integrated opportunity to consider coastal reserves and other conservation areas in parallel with the creation of inshore MPAs, creating better connectivity across ecosystems (eg feeding and nesting sites).

In the oceans,¹⁴² this would mean moving the Marine Reserves Act, Marine Mammals Protection Act and Wildlife Act into a broader outcomes-based statute concerned with the protection and enhancement of species and places. It would mirror the Department of Conservation’s institutional integration with commensurate legislative integration. That could also include a more nuanced range of protected area tools, instead of creating a standalone MPA Act.¹⁴³



Te Awaatu Channel (The Gut) marine reserve

A spotlight on an MPA Act

The statutory home for MPAs is an interesting design choice. Although the narrative internationally is generally that the primary purpose of a “proper” MPA is biodiversity related (see Chapter 9), the discourse in Aotearoa New Zealand is sometimes less emphatic on that point. It raises the question: should all spatial protections be located in an MPA Act (including ones that essentially perform an allocative role, like recreational fishing parks or other areas that exclude commercial fishing), or should MPAs be split across different acts with more targeted purposes?

Arguably, the stronger connection needs to be made between spatial and non-spatial tools having the primary purpose of biodiversity protection (eg marine reserves and population management plans) than between spatial tools having different aims (eg marine reserves and taiāpure). That might suggest a “gap filling” and tool-based statute like an MPA Act should be dismissed in favour of finding a home for more effective spatial tools across legislation with more targeted normative foundations. Biodiversity focused tools – like “type 1” MPAs, but possibly others as well¹⁴⁴ – could be found in conservation legislation. Others could be distributed elsewhere, including in the RMA. Synergies between those spatial tools could then be achieved through institutional cooperation or a marine spatial planning process.

On the other hand, a bespoke MPA Act might provide a broader toolkit to achieve conservation goals even if some tools have other purposes. Including them elsewhere might put such tools beyond the “reach” of the Department of Conservation, weakening some of the nuance and synergies that might otherwise be possible in conservation planning. For example, the Department could usefully have a role in designing layers of controls emanating outwards from a marine reserve (eg an ahu moana that provides a protective cloak around it or a recreational fishing zone that reduces pressures on it and provides for an enhanced fishing or tourism experience), or input into decisions about where to lay cables in light of both their risks (seabed disturbance) and benefits (fishing and mining exclusion) for marine species. An MPA Act might also be better positioned to provide protected area tools that span both land and sea (especially for offshore islands).

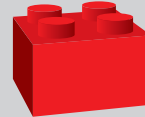
Unlike the sectoral boundary between the RMA and Fisheries Act, there is no real appreciable (or legitimate) difference in outcomes sought across conservation laws; a single “Protected Species and Areas Act” would break down arbitrary distinctions in purposes and reduce confusion as to which interventions should be used in which circumstances. It would provide a toolkit rather than just an assortment of tools. We have previously touched on what integrated conservation law could look like in our resource management reform project,¹⁴⁵ and are exploring that (among other options) in our current conservation law reform work.

Another possibility might be to merge place-based statutes (eg the Hauraki Gulf Marine Park Act, the Fiordland (Te Moana o Atawhenua) Marine Management Act, legislation for the Sugar Loaf Islands, and the Kaikōura (Te Tai o Marokura) Marine Management Act) into the Conservation Act or even a separate MPA Act. However, aspects of these statutes may be more difficult to integrate than others, as they contain elements that go well beyond just the creation of bespoke protected areas (eg the creation of the Hauraki Gulf Forum and the Fiordland Marine Guardians). Alternatively, they could be housed under the umbrella of a more general piece of legislation, which could provide a framework for place-based management, to be implemented through subsidiary regulation.

Another option would be to continue the current approach of creating new layers of place-based legislation, recognising that there is benefit in tailoring a cross-cutting package of measures to the needs of particular parts of the marine area (or across land and sea). For example, bespoke legislation is envisaged to implement the government’s response to the Sea Change Tai Timu Tai Pari initiative, and that could potentially be replicated elsewhere. This approach could have value as the Crown’s relationship with Māori continues to evolve (including to implement elements of settlements), recognising that tikanga differs across different rohe moana.

Some may also argue that bespoke statutes are desirable to reflect the unique circumstances of a place. But they do serve to further complicate an already complex system, as links generally need to be made with a number of other statutes. This can be seen in the case of the proposed Rangitāhua/Kermadec Ocean Sanctuary (see spotlight in Chapter 7). Instead of having its own standalone toolkit, the proposed legislation would amend and utilise the machinery five other pieces of legislation (the Biosecurity Act, Conservation Act, EEZ Act, Environmental Protection Authority Act and Fisheries Act).

The current system has many “conservation” statutes outside the Conservation Act, including ones that apply to the marine space. Some are domain-based (like the Wildlife Act and Marine Mammals Protection Act), others are place-based (eg the Sugar Loaf Islands Marine Protected Area Act) and others are tool-based (eg the Marine Reserves Act).



Marine conservation statutes, along with ones that include land and new MPA legislation, could be integrated into a new Protected Areas and Species Act that spans land and sea.



Tiritiri Matangi

Raewyn Peart



Port Nelson

Adding a new lens: Creating a new integrative piece of legislation

Instead of changing existing statutory boundaries, we could instead add an *additional* lens. This would coordinate all the others. It would be conceptually similar to some place-based legislation, which seeks to coordinate the operation of other frameworks in a particular spatial setting,¹⁴⁶ but could be applied at a much wider scale across all of the moana. In this way, it would not be a “spatial” lens.

This integrative “Oceans Act” (see Figure 11.15) would, essentially, be a new legislative framework that sits above others. It would ensure that better connections were made between multiple “operational” legal frameworks (eg for resource management, fisheries, minerals and so forth). This would not involve extensive legislative redesign (although it would not preclude other statutes from being reshuffled in ways outlined earlier), because it would form an additional layer.

This statute could contain a broad purpose for the whole oceans management system, provide the machinery for developing and changing marine spatial plans and an oceans policy, and establish formal links to other statutory frameworks through which the common purpose would be achieved. This could be through requiring other acts to, for example, “give effect” to it, be “consistent” with it, or have some other relationship with it. This is similar to the approach taken in Canada (see spotlight).

A spotlight on Canadian oceans legislation

Management of Canada's marine area is shared between federal and provincial governments with shipping, commercial fisheries, and oil and gas exploitation in offshore areas managed at a federal level. Canada was the first country in the world to adopt comprehensive legislation for oceans management. The Oceans Act 1996 declared Canada's EEZ and put in place a framework for more strategic and integrated management of the country's oceans. Unlike the United Kingdom legislation, which brought together various oceans-related functions under one piece of legislation and management authority (see further below), the Canada's Oceans Act overlaid an oceans regime across existing regimes which remained intact, leaving fishing, marine protection and shipping under their own legislation.

As described in Chapter 10 (with respect to oceans policy), the Canadian approach (an additional layer of legislation) has had implementation troubles because it has struggled to meaningfully integrate the many other statutory silos (and supporting institutions) that continue to operate separately. This could be a problem if a similar overlay were applied in Aotearoa New Zealand.


This type of Oceans Act could be a standalone piece of legislation. But, as with all aspects of the oceans management system, policy makers need to grapple with the links between land and sea. Thus an alternative would be for an overarching piece of legislation to cover, not just marine matters, but the broader *resource management* system encompassing both land and sea. It is particularly interesting to consider the possibility of piggybacking on the Randerson Panel's proposed new legislation for spatial planning (the Strategic Planning Act) to progress marine spatial planning. We explore this in more depth in Appendix 3, but have summarised the key positive and negative elements of such an approach in Figure 11.14.

Benefits	Drawbacks
Existing reform initiative which provides the opportunity to progress marine spatial planning (even if with limitations). It is least disruptive (in that it requires minimal amendment to other frameworks)	Does not extend to EEZ
Integrates spatial planning for land and the sea	Does not apply to key marine-related legislation such as Fisheries Act, Marine Reserves Act, Wildlife Act, Marine Mammals Protection Act, Biosecurity Act
Helps to integrate planning with financial provision for marine management and restoration (through application of the Strategic Planning Act to the Local Government Act)	May embed a terrestrial approach to marine spatial planning (where integration or coordination of activities is prioritised) and downplay ecosystem-based management as the underpinning goal
Provides for iwi to be around the table when formulating the plan	Does not provide for stakeholder-led collaborative plan making
Provides for central, regional and local government to plan together (with iwi) for the marine area in an integrated manner	Does not provide for a regulatory component of marine spatial plans, so could duplicate other processes
Proposed national priorities statement provides a means of setting out national priorities for the marine space and marine spatial planning	A national priorities statement might not be broad enough

Figure 11.14: Some benefits and drawbacks of progressing marine spatial planning under the proposed Strategic Planning Act

Overall, the Randerson Panel proposals for the Strategic Planning Act may not adequately provide for integrated marine spatial planning for a number of reasons. Most notably, the scope of the proposed Act excludes most of the country's marine area (the EEZ) and legislation applying to the marine domain. The scope of the Strategic Planning Act *could* be expanded so that it had legal influence over other marine-related legislation, such as the EEZ Act and Fisheries Act. However, that would create further complexity in a system arguably requiring simplification and rationalisation. It would also raise issues over the direction of influence. For example, should fisheries decisions influence a spatial plan? Or vice versa?

Moreover, the purpose of spatial planning on land and at sea is arguably quite different, as is the approach towards planning for these two areas. Marine spatial planning is more firmly rooted in the concept of ecosystems-based management, whereas terrestrial spatial planning is (at least partly) driven by the need to coordinate land use and public infrastructure funding and supply. That calls into question the appropriateness of undertaking spatial planning for land and sea under the same legislative framework (although dual purposes and processes could be provided for). This is why many countries have included provision for marine spatial planning in oceans-related legislation (such as Massachusetts, Canada, Victoria, Denmark, the United Kingdom and Scotland).¹⁴⁷

 **Marine spatial planning could be provided for under the proposed Strategic Planning Act, or an umbrella Marine Spatial Planning Act (which could be called an Oceans Act) could be created.**



Marsden Cove, Whangarei

Craig Potton

Marine Spatial Planning Act

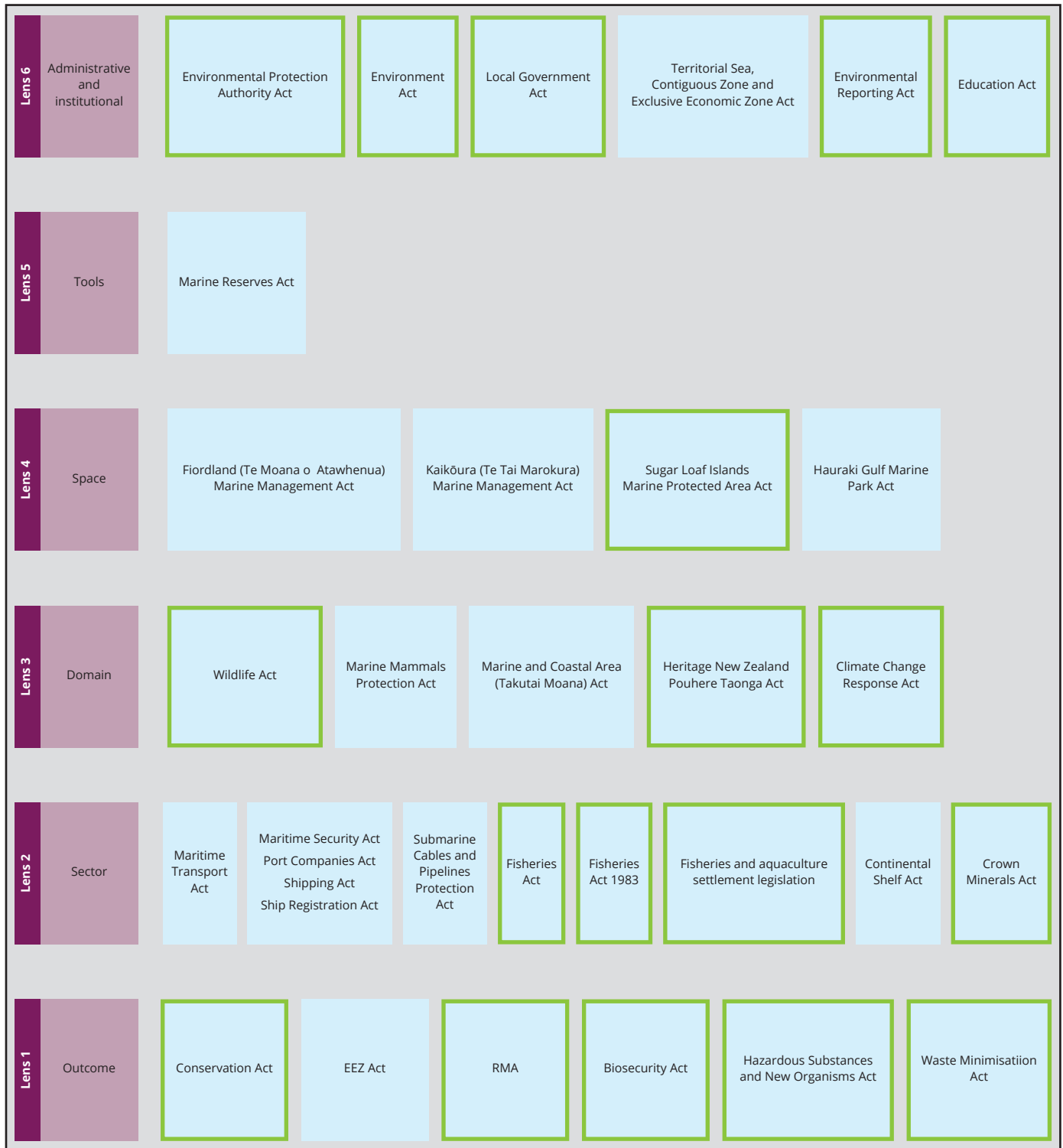


Figure 11.15: An umbrella Marine Spatial Planning Act (or Oceans Act)

Deeper reform options: Changing the order of lenses

The most significant change, from a legislative design perspective, would be if a completely different sequence of lenses was used. Because most of the system's content is found in its primary lens – currently outcome-based acts like the RMA, EEZ Act, Conservation Act and Biosecurity Act – what that primary lens should be is the most important thing to consider.

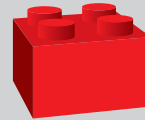
We could consider changing the primary lens to a sectoral one, which would result in the RMA, EEZ Act, Biosecurity Act and other outcome-based legislation being split up on a sectoral basis. The environmental impacts of mining, fishing, shipping, aquaculture, energy, tourism and other activities would be managed under targeted statutes. This would be more integrated in terms of the specific sector involved. For example, it would combine the currently fragmented frameworks under which marine mining is conducted (mining operations require consents and permits under the RMA/EEZ Act and Crown Minerals Act), under which fishing can be controlled (under the Fisheries Act, RMA, Marine Mammals Protection Act and Marine Reserves Act) and under which shipping is regulated (the Maritime Transport Act, the RMA and the Biosecurity Act).

However, it would be fragmented from the perspective that arguably matters much more – an ecosystem one. It would be very difficult to grapple with the cumulative impacts of multiple sectors on the environment if they had separate legal frameworks and decision-makers. It would be even more challenging to align the range of spatial tools needed to establish marine reserves or other protected areas.

Instead, domain-based legislation could be used as a primary lens. At its broadest, this could mean one statute for the “marine” domain (see the discussion of the Oceans Act later in this chapter). However, it could also mean more granular domains are the focus of statutes. For example, we could have a Marine Space Act, a Marine Water Quality Act and a Marine Species Act. But, similar to using a sectoral primary lens, this would make it difficult to address cumulative impacts that occur across these domains.

A spatial lens could even be applied first. Different legislation could, for example, apply to different marine biogeographical regions, with marine activities able to be managed quite differently within each. This is likely to run into serious downsides (not least considerable duplication and difficulties managing shipping and migratory species), but it would provide an interest starting point if ecosystems-based management, localism or jurisdictions based on tribal boundaries were to be embraced more.

While all of these are options, continuing to use outcomes (acts like the RMA) as a primary lens has benefits. For one, it makes it less likely that new sectors or technologies are left in total legal limbo while new laws are created to deal with them. For example, marine carbon capture and storage laws in some Australian jurisdictions have had to piggyback on legislation designed to manage oil and gas activities, despite fundamental differences in the activities (not least their conflicting purposes).¹⁴⁸ Novel uses of the marine environment seem set to expand, and we do not want to be left having to create new legislation for offshore energy, deep sea mining or offshore aquaculture in a reactive way.



The legislative arrangements in a future system could be fundamentally reimagined by changing the primary lens through which statutes are split up. This could be shifted to a sectoral or spatial lens.

An integrated Oceans Act

A more radical option would be not to split up our marine legislation at all. This could result in a single Oceans Act. From the perspective of the broader resource management system, this could be seen as a “spatial” or “domain” based statute (ie one applying only to the oceans).

Like the umbrella Oceans Act/Marine Spatial Planning Act described earlier, a more integrated Oceans Act could also include new tools like marine spatial planning and an oceans strategy/policy. But it would also incorporate the “machinery” from other Acts. This would see much more extensive legislative integration and the dismantling of other acts, not just the creation of another layer over the top.

There is no single conception of what this “Oceans Act” would look like. It is, essentially, a general label to describe a system that is more integrated in a legislative sense than what we have now. It could, for example, see the integration of parts of the RMA (eg management of the coastal marine area beyond, say, a three nautical mile limit) with the EEZ Act, and nothing else. That Oceans Act would essentially be a beefed up EEZ Act that applied closer to shore. Boundaries could be drawn differently, including through giving an Oceans Act jurisdiction over the coastal marine area on the seaward side of mean high water springs.¹⁴⁹

It could involve even more extensive integration, not just spatially but also for sectors and domains, bringing together the RMA (to the extent it applies to the coastal marine area), the EEZ Act, and one or more of the

Fisheries Act, the Marine Reserves Act, the Marine Mammals Protection Act, the Maritime Transport Act, and the marine provisions of the Wildlife Act (seabirds and marine species). It could even subsume the MACA Act, more tightly integrating that legislation with others that it is intended to influence (eg the RMA and conservation legislation). At its most extreme (and at the risk of becoming longer than something like the Income Tax Act), it could incorporate marine legislation beyond just that concerned with resource management, such as the Shipping Act and Maritime Security Act. A more integrated Act has been created in the United Kingdom (see spotlight).

A spotlight on oceans legislation in the United Kingdom

The United Kingdom's curiously named Marine and Coastal Access Act 2009 does much more than what its title suggests. It creates an integrated system for marine planning, marine licensing and the establishment of marine conservation zones. The Act's geographical ambit includes both the territorial sea and EEZ. In the Aotearoa New Zealand context, this is similar to combining the marine parts of the RMA, the EEZ Act, the Fisheries Act and the Marine Reserves Act. One might call it an integrated oceans statute.

Arguably its most significant feature is that it treats protected areas as an integral part of the system, around which other decisions of resource management (including fisheries) are to be made. The Act was passed with cross party support. Unusually, it does not set out a purpose for marine management, but the objective of "sustainable development" appears within various sections.

The Act provides for the promulgation of a "marine policy statement" to state general policies "for contributing to the achievement of sustainable development in the UK marine area".¹⁵⁰ In other words, it provides for a legislated concept of an oceans policy, and a legal framework for marine spatial planning as discussed in Chapter 10.

Marine plans and policy statements apply to all activities in the marine area and public authorities making consenting or enforcement decisions must do so in accordance with these documents "unless relevant considerations indicate otherwise".¹⁵¹ An exception to this requirement applies to decisions taken under the Planning Act 2008 where the consent authority must

only "have regard to" the marine policy documents.¹⁵² This includes nationally significant infrastructure projects such as offshore energy generation.

Under the Act, government is required to designate "marine conservation zones". These areas, in combination with marine sites established under the Habitats and Birds Directives, are to form a network of marine protected areas which achieve objectives set out in the legislation. Within two months of the passage of the legislation, the Minister is required to prepare a statement setting out how the Ministry intends to achieve this obligation, and he or she must periodically report on progress to achieve it (in 2012 and then every two years).¹⁵³ This is quite different to the approach we have in Aotearoa New Zealand, where marine reserves are optional and regarded as a tool to be used when considered desirable. However, it is more in line with the requirements proposed by the Randerson Panel to identify and map important areas under the proposed NBA.

The Marine and Coastal Access Act also created an integrated licensing system for certain marine activities including construction, dredging, removal or deposit of substances and scuttling of vessels. The licensing process is undertaken by the Marine Management Organisation and marine licences cover the entire life of the project to enable redundant structures to be removed.¹⁵⁴ Significantly, the Act also sets out a management system for inshore fisheries.¹⁵⁵ Overall, this example shows that a more integrated framework for oceans that incorporates resource management, protected areas and fisheries is possible. Whether it is desirable in the context of Aotearoa New Zealand remains debatable.



There are various options for what a more integrated Oceans Act could encompass, ranging from the simple integration of the marine parts of the RMA and EEZ Act, through to combining the marine components of conservation legislation, the Fisheries Act, the Biosecurity Act, the Maritime Transport Act and potentially others.

In Aotearoa New Zealand, the core features of an Oceans Act could include those set out in Figure 11.16.

<p>Overarching purpose and principles</p>	<ul style="list-style-type: none"> • To provide a consistent management approach across the oceans regime • Would need to include a range of principles (see Chapter 7) including those relating to te Tiriti (and a separate te Tiriti clause)
<p>Development of a national oceans policy and national oceans plan</p>	<ul style="list-style-type: none"> • To be overseen by the Minister of Oceans and co-developed by Ministerial-appointees and iwi – perhaps through the establishment of an Oceans Commission¹⁵⁶ • Could be a mandatory requirement • Would need a monitoring and review requirement, linked to environmental reporting • Could also be provision for local oceans policies, although these could be folded into marine spatial plans (which would operate at a more local/regional scale)
<p>Establishment of an Oceans Agency¹⁵⁷</p>	<ul style="list-style-type: none"> • Could have a statutory basis with a clear purpose and functions (like the Department of Conservation in the Conservation Act) to ensure continuity • Could be at arm's length from government or part of a government agency (each option has advantages and disadvantages; for example, the Australian Oceans Agency was quite separate and arguably became too disconnected from government; but Ministries/departments can become overly subject to Ministerial control)
<p>Establish an independent oceans watchdog/ governance entity¹⁵⁸</p>	<ul style="list-style-type: none"> • Could be the Parliamentary Commissioner for the Environment with an expanded role, an Oceans Commission, or similar • Would recognise that the public are not as engaged in matters in the sea as those on land, particularly when far out at sea, and there therefore needs to be a body to represent the public interest in healthy oceans • Could provide an institutional vehicle – perhaps at a national level – for iwi involvement in oceans governance • Could be constituted as a national oceans co-governance body with iwi • Could have a strong role in the development of national policy and planning documents
<p>Purpose and framework for marine spatial planning</p>	<p>We describe this in Chapter 10</p>
<p>Purpose and framework for iwi/hapū marine management tools and approaches</p>	<p>Could include modernised indigenous spatial management tools based on mātaítai, taiāpure and rāhui and develop emerging concepts such as Ahu Moana</p>

Framework for local marine management arrangements	To incorporate the Hauraki Gulf, Kaikōura and Fiordland legislation and provide for future local/regional collaborative models to be developed Could make specific provision for co-governance arrangements with iwi/hapū
Purpose and framework for species protection	If included in the Act eg marine mammals, seabirds, threatened species
Establishment of marine regulations	Could cover marine pollution, shipping, vessel licencing, fishing activities (including setting the TAC and TACC) Would need different types of regulations tailored to different activities and functions
Establish environmental consenting regime for marine activities	Would apply to all activities in the marine area (including fishing and shipping) unless expressly excluded Would be undertaken within the framework of the national oceans policy and relevant marine spatial plan (and potentially a zoning plan similar to a regional coastal plan)
Establish marine biosecurity regime	Would need to include shipping regulations on ballast water, hull fouling, movement of vessels around the country as well as regular biosecurity monitoring, incursion response plans and pathway management plans
Monitoring and reporting	Would need a mandatory requirement for regular monitoring and reporting
Compliance and enforcement	Would need to provide for a graduated range of enforcement tools and a rigorous penalty regime

Figure 11.16: Potential elements of an integrated Oceans Act

Raewyn Peart



Akaroa harbour

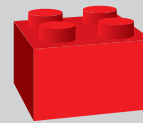
Irrespective of what it included, an integrated Oceans Act would have some benefits, including that it:

- Creates an integrated legislative framework within which interactions between different activities (and their effects) could be better addressed.
- May be more likely to remain coherent and durable for longer; there is a risk that amending statutes individually, as silos, can lead to them growing apart and forming less of a coherent whole over time.¹⁵⁹
- Creates a common legislative purpose (if that were possible with the variety of measures contained in it).
- Enables the legislation to be targeted to the challenges of managing the marine area.
- Enables marine spatial planning to be directly implemented through regulatory and funding mechanisms (including the close alignment of non-regulatory measures like restoration projects and citizen science initiatives).
- A dedicated Oceans Agency could develop a critical mass of expertise in oceans management and help ensure a dedicated focus on marine issues (a question of institutional design we are continuing to give thought to).
- Could provide a more generalised framework for iwi and stakeholder involvement in regional and local marine management, thereby avoiding a proliferation of local Acts.

Integrating existing marine legislation into an Oceans Act may have a number of benefits including enabling the legislation to be specifically targeted at the challenges faced when managing the marine area.

Another interesting possibility is that an Oceans Act could provide a more considered and consistent approach to allocative decisions across different resources. At the moment (other than through the framing of te Tiriti o Waitangi)¹⁶⁰ there is no real coherent framework for thinking about how or why we allocate resource rights (to fish, minerals, coastal space and so forth) in any principled way.¹⁶¹

This would not necessarily mean that we would override existing rights – such as through an overhaul of the QMS – or that we would have the same system for allocating different resources that have different physical and ownership features.¹⁶² But it would provide the chance to consider some general, overarching principles for what a fair and efficient distribution of non-private resources in the oceans looks like (see Chapter 8).



An integrated Oceans Act could provide a set of common, high-level principles for allocating rights to marine resources.

However, a highly integrated act would have downsides too. For example:

- It would involve extensive legislative change, and could be quite disruptive and take some years to bed in.
- Wherever the boundaries of the marine area to be managed are placed (ie at mean high water springs, or three nautical miles from land) there would be a difficult boundary to address (as land based activities have significant impacts on the marine area and the marine area itself is very fluid and interconnected).¹⁶³
- The tools deployed under the various pieces of legislation can be quite different (eg resource consenting, fisheries ITQ, maritime safety, protected areas), begging the question as to how much integration would actually be achieved other than stitching together different frameworks.
- The legislation could become quite complex, long and user-unfriendly, especially if it were to subsume legislation like the Maritime Transport Act.
- No existing agency has the skill sets required to manage all these areas so would require the development of a new agency from parts of the old ones (which could create the difficulty of melding very different cultures – a problem the Department of Conservation encountered when it was first established).
- It would potentially make it easier to defund marine management – through reducing budget allocations to a dedicated Oceans Agency (as happened with the Department of Conservation).

There are also questions about whether a common purpose for all aspects of oceans management is realistically possible, and therefore whether an integrated framework could ever create normative alignment. For example, we impose controls over both blue cod and dolphins, but the purpose for doing so is very different (one to eat, one for its intrinsic value). It is equally possible to see a *hierarchy* of purposes (eg that harvesting fish must not harm dolphins), which does not mean everything needs to be in one Act.¹⁶⁴

In fact, there is a strong case that an Act needs to be reasonably clear and coherent in its purpose – and therefore quite focused – so that decision-makers (including the courts) and the public know what is expected of them under it. For example, the breadth of the RMA's purpose meant that, for much of its history, it was interpreted as requiring balance rather than environmental limits.³² This could be particularly problematic if a framework that engaged in balancing the benefits and costs of activities under a general purpose was also responsible for the creation and defence of place-based protected areas (as opposed to having more focused MPA legislation). However, the United Kingdom experience and the Maritime Transport Act suggest that a lack of clear purpose *may* not be a fatal problem, and integration has benefits.

In summary, extensive integration risks creating a lack of focus/mandate/clear purpose, objective overload and paralysis, with tensions being played out behind closed doors. Contests and conflict – checks and balances – can be positive because issues become more visible. That is a benefit of (for example) having a Conservation Act conferring a mandate on the Department of Conservation that is different from that of other departments. Such concerns have been echoed elsewhere, too:¹⁶⁵

although fragmentation and duplication clearly present challenges for regulators seeking integrated or ecosystem-focused outcomes, it is characteristic of responses to 'wicked problems', which are 'complex, multifaceted, and resistant to resolution because they are ever-changing and because our knowledge about the problem is incomplete or contradictory'. The study revealed that attempts to replace marine regulatory complexity with 'one-stop shop' approaches may have political appeal, but they are simplistic, may risk the abandonment of existing environmental or social 'wins', and have typically proved problematic in practice by failing to solidify trust and cooperation between competing interests.

Finally, integrating marine focused matters by looking at a particular *space* – the oceans – could weaken the very important links between land and

sea and between the management of cross cutting outcomes. This could be because some *threats* to be managed span this boundary (eg pollutants from catchments, biosecurity risks, climate change), or because some things we are seeking to *protect* span the boundary (eg seabirds).

The fragmentation of species protection across marine and terrestrial focused legislation could be particularly problematic. Many species cross the marine divide with, for example, the wrybill breeding in braided rivers of the South Island but then migrating to northern marine areas such as the Firth of Thames and Manukau Harbour to feed during winter.¹⁶⁶ Many of our freshwater fish species are diadromous and either grow to adulthood in freshwater then breed in seawater (such as eels) or breed in freshwater, spend time at sea, and then grow to adulthood in freshwater (such as galaxiids).¹⁶⁷ Seabirds breed on land, and so what happens at their breeding sites (such as human disturbance and predator activity) can have as much impact on their survival as what happens at sea (in terms of harvesting impacts on food supply and capture in fishing gear). This cross-over between spaces suggests that integrated conservation legislation may make more sense than integrated *oceans* legislation. We are exploring such options in our parallel project on conservation system reform.¹⁶⁸

There may be considerable downsides and risks of “over-integrating” legislation into an Oceans Act.

11.6 Legal personhood and legislative design

One broader point should be made about legislative design. In Chapter 8 we discussed human rights (eg to a healthy environment) and rights for nature as potential tools to add to the toolbox. These could be implemented through a number of different legislative settings. Not all of these would involve changing statutory boundaries, only amending the content of existing statutes. And many of these would be ones not necessarily thought of as being part of the oceans management system.

For example, rights for people or the ocean itself could be enshrined in a document with a constitutional flavour, like the New Zealand Bill of Rights Act, which could set out oceans rights that legislation must be consistent with. A similar mechanism to that Act's “justified limitations” could be used, meaning that while the ocean's rights are not absolute, there must be compelling reasons to override them. This has the advantage of not requiring complete legislative overhaul – we already have a mechanism

by which fundamental human rights are recognised. We would simply be inviting nature to share in them.

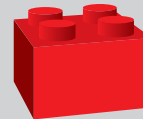
However, a disadvantage with using this mechanism, is that it does not impact on existing legislation (other than as an aid to interpretation). It is more orientated at influencing the content of future statutes, with the Attorney-General tasked with bringing attention to any provisions in bills before the House that are inconsistent with the rights and freedoms specified in the Act.¹⁶⁹ It would therefore need to be complementary to other, more targeted, change.

Alternatively, as a statute concerned with institutional arrangements, the Environment Act could be amended to create personhood for the ocean and establish the architecture around it. For example, it could create an office or department of the Parliamentary Commissioner for the Environment which investigates potential breaches of ocean's rights. Specific rights could be distributed across a wide range of other legislation, including the Property Law Act, Human Rights Act and Electoral Act.

Another mechanism could be an integrated Oceans Act, which could outline the fundamental rights and personhood of te moana. This would have the advantage (depending on how that Act was designed) of having a clear legal link to management frameworks in which tangible regulatory controls were imposed (eg setting catch limits, creating MPAs, restricting land-based pollution and land uses). But it would miss the opportunity for deploying legal personhood at a wider scale (eg for "nature" as a

whole). Rights for nature (including the ocean) could even be embedded in a written constitution for Aotearoa New Zealand, which could be a higher form of law (other legislation could be struck down on the grounds of inconsistency), or elevated in other ways (eg by being entrenched or double entrenched).

If legal personhood were to apply, not to the entire ocean but to special or significant areas (eg MPAs), it could follow a similar approach to the Whanganui River and Te Urewera. New legislation could be created for each area to declare its legal status, establish the board/body to represent it and lay out principles etc. It could also clarify how the legal person and associated legislation would interact with other processes and legislation. That would have the advantage of tailoring the characteristics of legal personhood, not just to the place (where it would have its own purpose, for example), but to the values and tikanga of mana whenua having authority over the sea in that area.



Legal personhood for te moana (or parts of it) could be provided for in a variety of statutes. One option would be for the moana as a whole to be granted personhood in an umbrella act like an Oceans Act or the Environment Act, and for its more specific rights to be conferred under more targeted legislation.



Bethells Beach, Auckland

11.7 Concluding comments

It is not immediately clear which division of the statute book makes most sense in the marine space. Some might legitimately say that, if something is not broken, it does not need to be fixed. Others might contend that, at the very least, there is unnecessary complexity that should be tidied up given the opportunity. And rethinking some of boundaries between primary legislation in a more fundamental way might make a significant difference to outcomes. It is reasonably clear that fragmentation across the system – be it spatial, sectoral, or other – is problematic, and connections and alignment between legislative silos are often weak and require strengthening. The options presented in this chapter provide only a snapshot of what might be possible. We welcome a conversation about other ways in which boundaries could be redrawn.

Of course, fundamental legislative changes warrant caution. Aside from being expensive, time consuming and disruptive, fundamentally overhauling whole statutory frameworks risks opening up debates that can derail an entire reform process. For example, the enormity of the task ahead to resolve the hundreds of claims made under the MACA Act means there may be little appetite for interfering in that statute in a significant way. Even a highly integrated Oceans Act may leave well enough alone.¹⁷⁰

Legislative redesign is not a silver bullet. Reshuffling boundaries may address issues caused by legislative fragmentation (eg by making the

existence of gaps more obvious, or harmonising purposes and principles), but it cannot be a solution to problems that arise elsewhere and require substantive changes. It could provide a more solid platform for those things to happen, but it must go hand in hand with changes to the toolkit, or risk being an expensive act of symbolic importance only. It may also need to be complemented by a degree of institutional change, which we turn to in Chapter 12.

Finally, some might argue that it is the boundary between primary and *secondary* legislation (ie tools) that is the more important thing to address. For example, might the Fisheries Act be made more agile and less complex if some of the mechanics of the QMS were to be located in regulations rather than primary legislation? Could the RMA/NBA and Maritime Transport Act be simplified in the same kind of way? Similarly, could a new framework for marine spatial planning be relatively high level, with the detail parked for subsequent regulations? We need to be wary of legislative “overdesign” and making the system so top heavy and complex that it collapses or stagnates. On the flipside, however, there may be a case for transferring some provisions currently in policy instruments like the NZCPS,¹⁷¹ or non-statutory instruments like the Harvest Strategy Standard, into primary legislation. Here, there is a tension to be resolved between the need for stability/certainty and agility/flexibility. Critical features guiding decisions and likely to be subject to legal challenge should have a strong statutory home.

Raewyn Peart

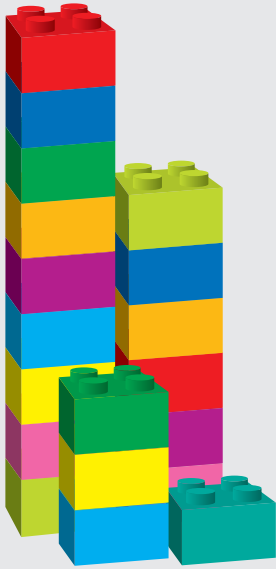


Mana Island, Wellington



Summary of options for reform: Legislative design

- The boundary between the Maritime Transport Act and EEZ Act could be refined, so that the latter includes management of discharges from ships. “Environmental” jurisdiction under the Maritime Transport Act for things like oil spills could also be moved to the RMA and EEZ Act.
- The boundary between the RMA/EEZ Act and Fisheries Act could be clarified by clearly shifting responsibility for the incidental impacts of fishing activity on the marine environment to the former. The Fisheries Act could be left as a means to allocate and manage fish stocks themselves.
- A sectoral Fisheries Act could remain as a home for the QMS and other allocative mechanisms like a TACC, but with all sustainability measures (including the TAC) being set under an expanded NBA (at a central or regional level).
- A future system could clarify the relationship between the Fisheries Act and “domain” based legislation like the Wildlife Act and Marine Mammals Protection Act. This could be done by making it clearer that tools under the latter statutes are to be used in an integrated way to achieve domain-based outcomes like the protection of threatened species, rather than relying on tools deployed under sectoral frameworks.
- The management of some fish stocks, such as those that have collapsed or breached a “limit”, could switch from the Fisheries Act to a revamped Wildlife Act.
- The scope (ie the kinds of outcome) sought by statutes like the RMA, EEZ Act and Conservation Act could be expanded to include more specific and proactive objectives for the marine environment, including those relating to a sustainable blue economy, the defence of strict environmental limits, and the allocation of resources (or the distribution of value from their use).
- Other layers of legislation could be expanded in a future system. This could see the enactment of more place-based legislation to protect particular areas, tool-based acts to create new types of MPAs, or new sectoral statutes for tourism, offshore energy, or ecological infrastructure.
- Some legislation within a sectoral layer could be integrated, such as by merging the Continental Shelf Act with the Crown Minerals Act or the Fisheries Act 1986 with the largely redundant Fisheries Act 1983.
- Maritime transport legislation could be integrated into a single Maritime Transport Act. Greater integration between terrestrial and maritime transport legislation might also be possible.
- The EEZ Act could be integrated within an expanded RMA/NBA, so that the latter encompassed all the country’s marine jurisdiction.



Summary of options for reform: Legislative design *(continued)*

- The boundary between the RMA and EEZ Act could be redrawn at a line that arguably makes more ecological sense. This could make the RMA a statute concerned with the land-sea interface (eg out to around three nautical miles) and the EEZ Act about the deeper sea environment.
- The RMA and EEZ could be split into an “Environmental Limits Act” and another act concerned with making trade-offs and allocative decisions through value-based plans.
- The Wildlife Act and the Marine Mammals Protection Act could be combined.
- Marine conservation statutes, along with ones that include land and new MPA legislation, could be integrated into a new Protected Areas and Species Act that spans land and sea.
- Marine spatial planning could be provided for under the proposed Strategic Planning Act, or an umbrella Marine Spatial Planning Act (which could be called an Oceans Act) could be created.
- The legislative arrangements in a future system could be fundamentally reimagined by changing the primary lens through which statutes are split up. This could be shifted to a sectoral or spatial lens.
- There are various options for what a more integrated Oceans Act could encompass, ranging from the simple integration of the marine parts of the RMA and EEZ Act, through to combining the marine components of conservation legislation, the Fisheries Act, the Biosecurity Act, the Maritime Transport Act and potentially others.
- An integrated Oceans Act could provide a set of common, high-level principles for allocating rights to marine resources.
- Legal personhood for te moana (or parts of it) could be provided for in a variety of statutes. One option would be for the moana as a whole to be granted personhood in an umbrella act like an Oceans Act or the Environment Act, and for its more specific rights to be conferred under more targeted legislation.



Kawau Island

Endnotes

- 1 Legislation Act 2012, s 3(e).
- 2 Others are, perhaps, less justifiable – such as the continued existence of the Fisheries Act 1983.
- 3 See Chapter 12.
- 4 Geoffrey Palmer “Law-making in New Zealand: Is there a better way?” (2014) 22 Wai L Rev 1 at 5.
- 5 For example, place-based Acts undercut general legislation, and the Fisheries Act manages marine resources and activities separately from their environment. On the constant erosion of the RMA’s coherence and carve outs from it, see Simon Berry, Helen Andrews and Jen Vella “The death of the RMA by a thousand cuts: The next two incisions” (April 2017) Resource Management Journal 3; Simon Berry and Helen Andrews “The final straw for the RMA? Some shortcomings of the Resource Legislation Amendment Bill 2015” (September 2016) Resource Management Journal 1; Martin Jenkins A “blue skies” discussion about New Zealand’s resource management system (Local Government New Zealand, December 2015) at 41.
- 6 Parliamentary Commissioner for the Environment *Setting course for a sustainable future: The management of New Zealand’s marine environment* (Office of the Parliamentary Commissioner for the Environment, Wellington, November 1999), preface.
- 7 Stephanie Behrens and Rochelle Constantine *Large Whale and Vessel Collisions in Northern New Zealand* (Report for consideration by the Scientific Committee of the International Whaling Commission, SC/60/BC9, Chile, 2008)
- 8 Raewyn Peart *Bryde’s whale voluntary protocol case study* (report prepared for the Sustainable Seas National Science Challenge, Environmental Defence Society, 2017).
- 9 Raewyn Peart *Bryde’s whale voluntary protocol case study* (report prepared for the Sustainable Seas National Science Challenge, Environmental Defence Society, 2017).
- 10 Such as the Biosecurity Act and the RMA, or the RMA and the Fisheries Act.
- 11 *Attorney-General v The Trustees of the Motiti Rohe Moana Trust* [2019] NZCA 532.
- 12 Shane Geange and others “Integrating conservation and economic objectives in MPA network planning: A case study from New Zealand” (2017) Biological Conservation 210 at 136–144, as cited in Office of the Prime Minister’s Chief Science Advisor *The Future of Commercial Fishing in Aotearoa New Zealand* (February 2021).
- 13 Bill Ballantine “Fifty years on: lessons from marine reserves in New Zealand and principles for a worldwide network” (2014) 176 Biological Conservation 297 at 300.
- 14 See for example Kendall Hutt “Okura community calls for council action on ‘sediment stressed’ marine reserve” *Stuff* (online ed, 11 July 2018); and Michael Neilson “State of the Gulf: Auckland Council report finds estuaries choking in sediment, shellfish dying” *The New Zealand Herald* (online ed, 29 June 2020).
- 15 Bill Ballantine “Fifty years on: lessons from marine reserves in New Zealand and principles for a worldwide network” (2014) 176 Biological Conservation 297 at 301.
- 16 Seachange Stakeholder Working Group *Sea Change Tai Timu Tai Pari Hauraki Gulf Marine Spatial Plan* (Hauraki Gulf Forum in partnership with others, April 2017) at 119.
- 17 The NZCPS talks about sediment, but it does not talk about the impacts of sediment on fish stocks.
- 18 Raewyn Peart *Voices from the Sea: Managing New Zealand’s fisheries* (Environmental Defence Society, Auckland, 2018).
- 19 See Jean Bell “Rangitoto channel dredging: Move to reject submissions ‘extraordinarily undemocratic’” *RNZ* (online ed, 12 June 2020).
- 20 Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation - Synthesis Report* (Environmental Defence Society, Auckland, December 2018), ch 8.
- 21 Compare Merriam Webster Online Dictionary “Coherent” (date unknown) with Legislation Act 2012, s 3(e)(i).
- 22 Complicated or uncertain boundaries with other legislation or the common law should be minimised: Legislative Design and Advisory Committee *Legislation guidelines: 2018 edition* (March 2018).
- 23 Legislation Act 2012, s 3(e).
- 24 Legislation Act 2012, s 3(e)(ii).
- 25 See generally Simon Berry, Helen Andrews and Jen Vella “The death of the RMA by a thousand cuts: The next two incisions” (April 2017) Resource Management Journal 3; Simon Berry and Helen Andrews “The final straw for the RMA? Some shortcomings of the Resource Legislation Amendment Bill 2015” (September 2016) Resource Management Journal 1; Martin Jenkins A “blue skies” discussion about New Zealand’s resource management system (Local Government New Zealand, December 2015) at 41.
- 26 See Chapter 9.
- 27 See Greg Severinsen *Reform of the Resource Management System: A model for the future* (Environmental Defence Society, Auckland, December 2019). On EEZ reform, see Raewyn Peart, Kate Mulcahy and Kelsey Serjeant *Governing our Oceans: Environmental Reform for the EEZ* (Environmental Defence Society, Auckland, 2011).
- 28 See generally Raewyn Peart *Voices from the Sea: Managing New Zealand’s Fisheries* (Environmental Defence Society, Auckland, 2018), ch 2.
- 29 See Resource Management Act 1991, s 5(2)(a).
- 30 Although jurisdiction has recently been re-established under the RMA, it is still by no means clear what can or should be done through that mechanism other than broad considerations like low-emissions urban design.
- 31 See, for example, Barry Barton, Kimberley Jane Jordan and Greg Severinsen *Carbon capture and storage: Designing the legal and regulatory framework for New Zealand* (Centre for Environmental, Energy and Resources Law, University of Waikato, 2013)
- 32 See Brian Greene *The fabric of the cosmos* (Vintage Books, New York, 2004).
- 33 Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation - Synthesis Report* (Environmental Defence Society, Auckland, December 2018) at 124.
- 34 Even if some statutes (particularly older ones) do not have a specific purpose section, they still have a long title that outlines what the point of the legislation is and why it exists.
- 35 Reinforced by the fact that the nature of the resource is different in that there are private property rights in minerals and commercial fishing. They may not be absolute property rights, but they are distinct enough from rights to other things (eg time-limited rights to take water) to warrant different treatment. A different purpose for fisheries is also driven by international law framing under UNCLOS.
- 36 For example, the Biosecurity Act is as much about protecting industries from pests as it is about protecting the environment.
- 37 Similarly, when it comes to place-based statutes for Kaikōura or Fiordland, the need for targeted legislation reflects not just limitations in the toolkit of other acts (eg a lack of nuanced MPAs) but also limitations in their purposes (the purpose of marine reserves is about scientific research, and that of the RMA is arguably about balance, not strict protection).
- 38 The same thing can be seen more obviously in the EEZ Act, which has two distinct purposes combined into one section: sustainable management and pollution prevention.
- 39 For example, the Animal Welfare Act has a distinct purpose for most “parts” in the statute.
- 40 And the very specific purpose of the Environmental Protection Authority Act – essentially, to create the EPA – has resulted in a standalone act despite two quite different entities (the Parliamentary Commissioner for the Environment and Ministry for the Environment) being created within the same one (the Environment Act).
- 41 Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation -- Synthesis Report* (Environmental Defence Society, Auckland, December 2018) at 126.
- 42 New Zealand Productivity Commission *Better urban planning: Final Report* (February 2017) at 12.
- 43 With the notable exception of the EEZ.
- 44 The Marine Mammals Protection Act is arguably less spatial than it is “domain” based, as its focus is on particular species that can traverse the land-sea divide (eg seals).
- 45 Which applies to land-based aquaculture (as distinguished from “marine” fish farms). Some species managed by the Act live in freshwater for parts of their life cycles.
- 46 Some of these area-specific statutes were created due to more general frameworks failing to establish MPAs, making it necessary to establish them on a case-by-case basis.
- 47 A “sector” being generally a type of activity that is commercial in nature. The Maritime Transport Act is concerned with more than just “shipping”; it is also concerned with recreational boating and with activities that have potential for oil spills even if not “transport” related – eg oil and gas installations.
- 48 It is not immediately clear whether the Maritime Transport Act is better defined as a sectoral framework for shipping or an institutional framework providing a home for the responsibilities of Maritime New Zealand (in a similar way that the Local Government Act is an institutionally focused framework for councils to discharge their wide-ranging responsibilities across many sectors).
- 49 For example, due to roles of dozens of regional and district councils, the Environment Court, boards of inquiry, commissioners and so forth.
- 50 From a marine species perspective, climate is not just the “atmosphere” but also the water column.
- 51 Where freshwater mixes with salt water.
- 52 Which has been one criticism of the list of environmental limits in the NBA.
- 53 Particularly when it comes to “domains” like the coastal marine environment and biodiversity.
- 54 The Local Government Rating Act can be seen as a tool-based act as well.

55 Of course, the Climate Change Response Act contains other tools too, such as strategic ones like emissions reduction plans.

56 And to some extent, such as aquaculture biosecurity concerns, under the Fisheries Act.

57 Although it used to have provisions relating to fishing in the EEZ, so its existence is also historical.

58 On the other hand, the RMA is arguably longer and *less* user-friendly because of its inclusion of content that need not necessarily be there, such as provisions continuing the existence of the Environment Court.

59 Sian Elias “Righting environmental justice” (Salmon Lecture 2013, the Northern Club Auckland, 25 July 2013) at 2.

60 That said, Fisheries New Zealand effectively has responsibilities under other statutes already, eg where concurrence of the Minister is required for the establishment of population management plans under conservation legislation and, even more notably, for aquaculture under the RMA.

61 More accurately, its continued existence.

62 Although other tools are contained in other Maritime Acts administered by Maritime New Zealand, such as legislation for submarine cables and pipelines, the Port Companies Act, the Maritime Security Act, and the Shipping Act (which is largely just a skeleton act). However, the outer boundaries of all these acts are still effectively defined by Maritime New Zealand’s role.

63 Although it covers broader matters too, not just related to mining.

64 Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation - Synthesis Report* (Environmental Defence Society, Auckland, December 2018) at 130.

65 Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation - Synthesis Report* (Environmental Defence Society, Auckland, December 2018) at 134.

66 There is a spatial distinction between RMA and EEZ Act, however.

67 More specifically, *wild* fisheries.

68 This applies to installations as well, not just ships, and is not about “transport” per se. However, offshore installations can still be regarded as one or more sectors that require such planning above and beyond others managed under the RMA, as they give rise to additional risks and have complex international liability rules.

69 Some aquaculture-specific provisions in the RMA are arguably anomalous.

70 Although marine pollution regulations have done a similar thing under the RMA, translating the London Dumping Protocol.

71 Although that is done largely under the Maritime Transport Act in the EEZ.

72 It remains unclear the extent to which the EEZ Act could control fishing impacts on marine habitats, in light of both its similarities and differences when compared to the RMA.

73 See the spotlight on *Motiti* later in the chapter. However, in practice, this has largely been treated as a carve out.

74 Assisted by Biosecurity New Zealand and Fisheries New Zealand being business units within the same Ministry.

75 Although, in keeping with its place as a secondary lens, the Fisheries Act in practice has been the location of most tools for addressing impacts where it is a result of fishing – eg bycatch of protected species and the impacts of fishing on their habitats.

76 Ownership on land is generally accepted as being determined by the Torrens system. It is an interesting question as to why ownership of the foreshore and seabed was not resolved in the RMA, given that customary marine title has a strong interface with planning and consenting. The answer may be that the RMA generally shies away from issues of property rights; in light of that, it will be interesting to see whether a bespoke statute will be used to address the live issue of ownership rights in freshwater.

77 For example, the emissions trading scheme and archaeological authorities.

78 Along with, in some cases, the flaws in the tools available under other frameworks (arguably some location-based statutes would not be necessary if MPA tools were improved). Another explanation is that these place-based statutes are there to ensure that different outcome-based, sectoral and domain-based statutes work well together in a particular place. In other words, they seek to remedy the absence of marine spatial planning in places that would particularly benefit from a more integrated or at least coordinated system.

79 Indeed, if anything, the anomaly is the continuation of the Environment Court in the RMA rather than its own Act or the Environment Act. That said, whether these institutional acts could all be combined *together* is a good question.

80 Although there is nothing stopping regulations under the RMA from doing that kind of thing – eg with design of petroleum wells and closure requirements.

81 It is interesting as to whether it should, however.

82 Much of this background sources materials referred to by Steven Edward Farnworth “Liability for Pollution Damage from Offshore Oil Spills: The CLC and Fund Conventions, the EU’s Environmental Liability Directive and their implications for New Zealand Law” (PhD Thesis (Law), University of Waikato, 2017), ch 4.

83 Ministry for the Environment *Managing our oceans: A discussion document on the regulations proposed under the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Bill* (ME 1090, May 2012) at 5.

84 Marine Legislation Bill 2012 (58-1) Explanatory Note, at pt 2.

85 Part 2 of the EEZ Act was replaced by s 11 of the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Amendment Act 2013, “Duties, restrictions, and prohibitions”.

86 EEZ Act, s 158A; and Maritime Transport Act 1994, s 231.

87 See Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation - Synthesis Report* (Environmental Defence Society, Auckland, December 2018)

88 *Attorney-General v The Trustees of the Motiti Rohe Moana Trust* [2019] NZCA 532.

89 At [33].

90 *Attorney-General v The Trustees of the Motiti Rohe Moana Trust* [2017] NZHC 1429 at [8] and [9]. See also Sally Gepp and Madeleine Wright “Marine biodiversity and taonga species: slipping through the cracks” (2017) *Resource Management Journal* 15.

91 See Enric Sala and others “Protecting the global ocean for biodiversity, food and climate” (2021) 592 *Nature* 397.

92 *Attorney-General v The Trustees of the Motiti Rohe Moana Trust* [2019] NZCA 532 at [72].

93 Marine and Coastal Area (Takutai Moana) Act 2011, s 66.

94 Minerals themselves – and their presence or absence – are not *usually* part of ecosystems, so their management does not comfortably fit with the purpose of the RMA. In contrast, the presence or absence of fish are intimately connected to ecosystems, so can be regarded as a carve-out rather than an additional layer.

95 This would help avoid the inconsistency which occurred on the Chatham Rise with the Chatham Rock Phosphate mining proposal, where trawling of the seabed in the area was being undertaken without any consent required, but the seabed mining proposal was required to undergo a rigorous environmental impact assessment and consenting process, despite being very similar activities with comparable effects. See Environmental Protection Authority *Decision on Marine Consent Application: Chatham Rock Phosphate Limited: to mine phosphorite nodules on the Chatham Rise* (February 2015)

96 See Resource Management Amendment Act 2020, ss 2 and 35.

97 That said, one issue might be that measures taken under the RMA to protect marine biodiversity in an overall sense may not always be *enough* to ensure MSY (fish stocks rely on habitats for spawning, shelter and food), so even in this model, scope may still be needed under the Fisheries Act to impose *additional* protections. There is often an assumption that action under the RMA would be more protective than under the Fisheries Act, but that is not necessarily the case; there have been fairly questionable outcomes from applying sustainable management over the past three decades (including sedimentation from land), and by no means have they all been positive for fisheries.

98 That in itself is not necessarily a problem; for example, the concept of stringency under the RMA (where regional plans can impose more but not less stringent regulations than national direction for defined reasons) is generally a workable one.

99 Although, this would not be true if limits were set through national level instruments, for which appeal is not available.

100 The QMS and TACC, as primarily allocative tools, are also arguably more akin to tools like the ETS and justifiably found in legislation focused on the particular resource being allocated. This begs the question, however, whether more complex tools for the allocation of other marine resources (especially the occupation of coastal space) should be carved off from outcomes-based frameworks like the RMA concerned with environmental effects.

101 Waitangi Tribunal *The Priority Report concerning Māui’s Dolphin* (Wai 898, 2016) at 6-7.

102 Raewyn Peart *Dolphins of Aotearoa* (2013, Craig Potton Publishing, Nelson) at 13.

103 Elisabeth Slooten and Stephen M Dawson “Delays in Protecting a Small Endangered Cetacean: Lessons Learned for Science and Management” (2021) 8 *Front Mar Sci* 1 at 2.

104 Department of Conservation “Threats caused by people” <https://www.doc.govt.nz/nature/native-animals/marine-mammals/dolphins/maui-dolphin/threats/threats-caused-by-people/>.

105 Department of Conservation and Fisheries New Zealand *Protecting Hector’s and Māui Dolphins: Consultation on proposals for an updated Threat Management Plan* (Fisheries New Zealand, Discussion Paper 2019/03, June 2019) at 32.

106 Department of Conservation “Threats caused by people” <https://www.doc.govt.nz/nature/native-animals/marine-mammals/dolphins/maui-dolphin/threats/threats-caused-by-people/>.

107 Department of Conservation “Threats caused by people” <https://www.doc.govt.nz/nature/native-animals/marine-mammals/dolphins/maui-dolphin/threats/threats-caused-by-people/>.

108 *Northern Inshore Fisheries Management Co Ltd v Minister of Fisheries* [2002] BCL 360 (HC).

109 Raewyn Peart *Dolphins of Aotearoa* (2013, Craig Potton Publishing, Nelson) at 250.

110 *The New Zealand Federation of Commercial Fishermen v The Minister of Fisheries* [2010] BCL 197 (HC).

- 111 At [4].
- 112 At [5].
- 113 See David Carter's 2012 (then Minister for Primary Industries) decision on interim set net restrictions to protect Māui dolphins; "Minister's Decision Letter" available from <https://www.mpi.govt.nz/consultations/interim-set-net-measures-to-protect-maui-dolphins/>.
- 114 Department of Conservation "Seismic Surveys Code of Conduct" <<https://www.doc.govt.nz/our-work/seismic-surveys-code-of-conduct/>>.
- 115 Waitangi Tribunal *The Priority Report concerning Māui's Dolphin* (Wai 898, 2016).
- 116 At 1.
- 117 At 16.
- 118 Between Cape Reinga and Maunganui Bluff, it extends to four nautical miles, between Maunganui Bluff and Waiwhakaiho River 12 nautical miles, seven nautical miles from the river to Hawera, and four nautical miles continuing south until Wellington.
- 119 Department of Conservation and Fisheries New Zealand *Protecting Hector's and Māui Dolphins: Consultation on proposals for an updated Threat Management Plan* (Fisheries New Zealand, Discussion Paper 2019/03, June 2019) at 32.
- 120 Some chemicals found in pesticides and building materials can affect Māui dolphins via coastal runoff and can impact breeding success, in some cases causing sterility: see Department of Conservation "Threats caused by people" <https://www.doc.govt.nz/nature/native-animals/marine-mammals/dolphins/maui-dolphin/threats/threats-caused-by-people/>.
- 121 Department of Conservation "Threats caused by people" <https://www.doc.govt.nz/nature/native-animals/marine-mammals/dolphins/maui-dolphin/threats/threats-caused-by-people/>.
- 122 Elisabeth Slooten and Stephen M Dawson "Delays in Protecting a Small Endangered Cetacean: Lessons Learned for Science and Management" (2021) 8 Front Mar Sci 1 at 7.
- 123 Department of Conservation "Departmental Briefing: Hector's and Māui Dolphin Threat Management Plan Review: advice following public consultation" (DOCCM 6060228, 14 October 2019) available from <www.doc.govt.nz>
- 124 Or the Wildlife Act, which could deal with bycatch of an expanded range of protected species.
- 125 Through conservation freshwater fisheries regulations, and via permits.
- 126 Given that customary marine holders can influence the content of conservation plans and strategies.
- 127 And one on which policy makers have received advice; see Barry Barton, Kimberley Jane Jordan and Greg Severinsen *Carbon capture and storage: Designing the legal and regulatory framework for New Zealand* (Centre for Environmental, Energy and Resources Law, University of Waikato, 2013).
- 128 For example, directing or influencing the movement of tourists around the country in relation to tourist infrastructure and sensitive ecological areas. Other aspects of tourism management could remain in broader outcomes-based frameworks like the RMA (eg occupying the seabed), domain based legislation like the Marine Mammals Protection Act (marine mammal watching operations) and Wildlife Act (eg shark cage diving) and sectoral legislation (eg bag limits for recreational charter boats).
- 129 Minister for Ocean and Fisheries "Fisheries Amendment Bill: Strengthening fishing rules and policies: landings and discards" (2 July 2021).
- 130 Much is beyond the purpose of the Fisheries Act.
- 131 Expanded in the sense that it would apply to the edge of the extended continental shelf. Some amendments would be required to recognise the distinction in international law, including revisiting the idea of "ownership" of minerals and therefore "royalties" in the EEZ, and the framework for payments to the international seabed authority for mining.
- 132 For example, section 6 shellfish provisions could be placed under the Fisheries Act; section 7 application of civil and criminal law under the EEZ Act; and section 5A payment for use of the extended continental shelf under the EEZ Act.
- 133 Although we do have a separate act for minerals beyond 12 nautical miles.
- 134 See Jean Bell "Rangitoto channel dredging: Move to reject submissions 'extraordinarily undemocratic'" *RNZ* (online ed, 12 June 2020).
- 135 For instance, international law grants coastal states sovereign rights over "natural" resources, whereas the RMA deals with "natural and physical" resources: UNCLOS, art 56(1)(a). Compare RMA 1991, pt 2.
- 136 See the discussion of *King Salmon* in the spotlight in Chapter 3.
- 137 Resource Management (Marine Pollution) Regulations 1998.
- 138 There are significant questions as to what a "limit" would encompass, or whether they could even be set in the marine environment (see Chapters 6 and 8).
- 139 See Chapter 8.
- 140 See the discussion further below on an integrated Oceans Act.
- 141 On the normative tension in the Wildlife Act, see Deidre Koolen-Bourke and Raewyn Peart *Conserving Nature: Conservation System Reform Issues Paper* (Environmental Defence Society, Auckland, 2021)
- 142 Integrated conservation legislation would have implications well beyond the marine context, which we are exploring in our conservation law project. See Deidre Koolen-Bourke and Raewyn Peart *Conserving Nature: Conservation System Reform Issues Paper* (Environmental Defence Society, Auckland, 2021). This will be followed by Phase 2 looking at options.
- 143 Although whether some, such as recreational fishing parks, should be in fisheries legislation is debatable. It would depend on their purpose, and whether outcomes-based legislation for conservation would be a primary lens vis a vis sectoral legislation for fishing.
- 144 See Department of Conservation "Type 1 Marine Protected Areas: Marine reserves" <www.doc.govt.nz/nature/habitats/marine/type-1-marine-protected-areas-marine-reserves/>; and Department of Conservation "Type 2 Marine Protected Areas" <www.doc.govt.nz/nature/habitats/marine/type-2-marine-protected-areas/>.
- 145 Deidre Koolen-Bourke and Raewyn Peart *Conserving Nature: Conservation System Reform Issues Paper* (Environmental Defence Society, Auckland, 2021). See also Greg Severinsen *Reform of the Resource Management System: A model for the future* (Environmental Defence Society, Auckland, 2019).
- 146 For example, the Hauraki Gulf Marine Park Act.
- 147 See generally Kelsey Serjeant and Raewyn Peart *Healthy Seas: Implementing marine spatial planning in New Zealand* (Environmental Defence Society, Auckland, 2019).
- 148 See Barry Barton, Kimberley Jane Jordan and Greg Severinsen *Carbon capture and storage: Designing the legal and regulatory framework for New Zealand* (Centre for Environmental, Energy and Resources Law, University of Waikato, 2013).
- 149 That is not to suggest that this option would be *desirable*.
- 150 Marine and Coastal Access Act 2009 (UK), s 44(1).
- 151 Section 58(1).
- 152 Section 58(4).
- 153 Sections 123 and 124.
- 154 Marine Management Organisation "The future of marine licencing" <www.webarchive.nationalarchives.gov.uk/20110405233153/http://www.marinemanagement.org.uk/works/future.htm>.
- 155 Marine and Coastal Access Act 2009 (UK), pt 6.
- 156 For more on institutional settings, see Chapter 12.
- 157 For more on institutional settings, see Chapter 12.
- 158 For more on institutional settings, see Chapter 12.
- 159 Legislative Design and Advisory Committee *Legislation guidelines* (March 2018) at 10. This can be seen in the dated norms still underpinning the Marine Reserves Act compared with the more modern purposes proposed for the NBA, or the distinction between the Crown Mineral Act's statutory support for oil and gas exploitation and the Climate Change Response Act's imperative to lower emissions.
- 160 See *Ngāi Tai Ki Tāmaki Tribal Trust v Minister of Conservation* [2018] NZSC 122.
- 161 The Crown tenders largely to the highest bidder for minerals, fish quota were distributed based on grandparenting and cutting out smaller fishers then-reliant on the market, and coastal space can be first in time or through a loose tendering process lacking any real guiding principles.
- 162 For example, some might be through markets and property rights, others through permits, some through tendering.
- 163 One option could be to map a boundary based on ecological and geological factors rather than an arbitrary line.
- 164 In fact, it suggests that it should be done separately given the issues that have arisen under using the Fisheries Act.
- 165 Elizabeth Macpherson and others "Hooks" and 'Anchors' for Relational Ecosystem-Based Marine Management" (2021) 130 Marine Policy (citations omitted).
- 166 New Zealand Birds Online "Wrybill" <www.https://nzbirdsonline.org.nz/species/wrybill>
- 167 NIWA "NIWA Atlas of NZ Freshwater Fishes" <<https://niwa.co.nz/freshwater-and-estuaries/nzffd/NIWA-fish-atlas>>
- 168 Environmental Defence Society "Policy work" <<https://eds.org.nz/our-work/policy/>>
- 169 New Zealand Bill of Rights Act 1990, ss 6 and 7.
- 170 Such debates played a large part in halting progress when oceans reform was contemplated two decades ago.
- 171 Including, arguably, environmental limits and targets.

12 Institutional design



Mangawhai

12.1 Introduction

If legislation is the backbone of the oceans management system, institutions are the muscles that make it work. The two themes are closely connected, and changes to statutory boundaries could therefore be complemented by a similar degree of institutional change. For example, it might make sense for an integrated Oceans Act to exist alongside an “Oceans Ministry” and “Oceans Agency” with a similarly broad focus and mandate (see Chapter 13). Legislative and institutional change could, however, be alternatives. For example, highly integrated legislation might make institutional reforms less pressing, if something like an Oceans Act or even an overarching framework for marine spatial planning could coordinate how tools (eg MPAs and regional plan zoning) are used by separate agencies. On the flipside, institutional change could render legislative overhaul less pressing. For example, an Oceans Agency might take on core marine planning and regulatory functions under the RMA, MPA legislation and Fisheries Act, harmonising how those frameworks are implemented. A similar approach was taken in the creation of the Department of Conservation in the 1980s, which was designed to be the institutional “glue” that held disparate pieces of conservation legislation¹ together.

Institutional settings in the current system are complex (see Chapter 3). Some institutions are central, others are local; some are advisory, while

other make decisions or take action; some are directly accountable to voters while others are not. They include various Ministers, government departments (including the Ministry for the Environment, Fisheries New Zealand, Biosecurity New Zealand, and the Department of Conservation), regional councils, iwi/hapū (and affiliated entities like trusts and post settlement entities),² the EPA, the Environment Court, Maritime New Zealand, the Parliamentary Commissioner for the Environment, the Hauraki Gulf Forum, the Conservation Authority and conservation boards, various bespoke guardians,³ and many others. Institutions may or may not be creatures of statutes; iwi/hapū and some government agencies (eg Fisheries New Zealand and Biosecurity New Zealand) aren't but many are (eg the EPA, Ministry for the Environment and Department of Conservation). Even more so than legislation, institutions have evolved organically over the years. Some have been added, others reshuffled (especially within central government),⁴ while still others have been replaced.⁵ Recently, notable institutional changes have occurred within central government (eg a Minister for Oceans and Fisheries and an Oceans Secretariat hosted by the Department of Conservation).⁶

Faced with this complexity, and the need to be pragmatic, it is tempting to think primarily about how we might alter existing institutions. Here, reforms could be comparatively minor and targeted (eg an extension of an existing

Raewyn Peart



Oyster barge, Mahurangi harbour

organisation's functions or strengthening of its mandate, such as those of the EPA).⁷ However, within the spirit of a blue skies review, it is also worth asking broader questions about how and why we might fundamentally reimagine institutional boundaries and characteristics in the future. We could contemplate the creation of a new institution, the replacement of existing ones, and/or the merging or splitting up of some entities.

As with other themes, when considering institutional options for the future, it is essential to consider *why* we would do one thing and not another (or anything at all). Structural reform should not be pursued for its own sake. Of course, one important justification would be to create institutional settings that better address the biophysical, social and other problematic outcomes described in Chapter 2. That said, it is not immediately clear whether one type of institutional reform (eg having an apolitical Oceans Agency) would improve these more than another (eg strengthening resourcing for elected regional councils), or indeed whether foundational institutional settings are really responsible for those outcomes at all (and therefore whether we should content ourselves with improving the toolkit they use).⁸ The extent to which different institutional design measures, whether minor or major, would “fix” problems⁹ is ultimately a matter for readers to ponder and discuss, although we do offer some potential pros and cons in the discussion of options that follows.

Another reason to consider institutional reform is the range of issues with the current system itself (see Chapter 3). For instance, some might argue that the absence of true environmental limits (to the extent one regards that as a problem)¹⁰ stems partly from the relatively weak or non-statutory mandates of the institutions that may impose them, or that they are subject to the short-term thinking and changing political trade-offs of elected officials (see the spotlight on *King Salmon* in Chapter 3). Similarly, fragmentation in the current system is as much institutional as it is legislative, with a lack of clarity about who is responsible for what, causing things to fall between the cracks. Unclear stewardship and leadership for the moana as a whole (including stewardship for information and research) is also a fundamentally institutional issue. And a lack of strategy and agility in the system arguably speaks as much to the orientation, mandate and accountability of institutions as it does to the purpose and principles of the legislation under which they operate. In short, while institutional change is not necessarily a silver bullet solution, it provides fertile ground for a discussion about how problems might best be tackled.

Aside from addressing problems, changes to institutional design might simply reflect people's worldviews or desires for what the structural features of a future system should look like. For instance, some might

have an innate preference for localism, and therefore wish to see a strengthened role for councils. Others might want to hold government to account (irrespective of what outcomes are being produced) via an audit from an independent Oceans Commission or similar. And for some, co-governance with mana whenua may be important to recognise te Tiriti o Waitangi or the rights of indigenous peoples under UNDRIP, irrespective of the environmental or social outcomes. In short, it might be regarded as the *right* thing to do.

Still others may prefer options that involve the least institutional disruption or provide the most bang for one's buck. For example, partnerships and the sharing of resources between existing agencies could be formalised, roles and relationships could be clarified, and funding shortfalls addressed. Those might be alternatives to “grand plans” that seek to reconstruct institutional arrangements from the ground up.

A first principles rethink of institutional settings is warranted, not only because those settings may have contributed towards problems, but also because they might be better configured to achieve a future system's objectives or reflect its underlying ethics and principles. People may have different views as to what form of change is warranted and why.

12.2 Institutional characteristics

There is a potentially infinite array of institutional options available for a future system. We may decide to keep some that we already have (eg Fisheries New Zealand), others could be modelled on overseas examples (eg the United Kingdom's Marine Management Organisation), and some could be imagined out of thin air (eg an Oceans Commission). However, as with the system as a whole, it is worth considering how we frame a conversation about institutional design rather than just embarking upon a laundry list of possible options.

One way of doing this is by thinking about the characteristics that institutions can have, why we might want certain *combinations* of characteristics, and how those entities would interact with *each other*. In Figure 12.1 we set out what some institutional characteristics might be. We then explore each of them in turn and consider some of the options for institutional change that they may give rise to. As with other themes, this is intended to be a springboard for discussion, rather than a comprehensive account of all possible reforms.

1. The degree of an institution's independence

An institution can be independent of political influence (such as the Environment Court) or politically accountable (such as Ministers and regional councils).



2. The degree of an institution's centralisation

An institution can be central in that it functions across the whole country (such as a government department) or locally (such as a district council). Both central and local institutions can be accountable or independent.



3. The extent of an institution's subject focus

An institution can focus narrowly on specific resources or domains or have a wide focus (such as the Ministry for the Environment).



4. The extent of an institution's geographical focus

An institution can focus narrowly on a specific geographical area (such as the Fiordland Marine Guardians) or on a broad area (such as the Department of Conservation).



5. The nature of an institution's task

An institution can have different kinds of tasks. Among other things, it can create policy, impose regulation, or enforce decisions.



6. The formality of an institution's creation

Some institutions can be formally created (such as by statute), while others are created in a more informal way (such as by Cabinet decision).



7. The nature of an institution's mandate

An institution can have a protective mandate (such as the Department of Conservation), or it can have an exploitative mandate and seek to secure the benefits of resource use (such as the Ministry for Primary Industries). The word "exploitative" is not intended to have any negative connotations. It simply means driving resource uses that are considered to be in the public interest.



8. The extent of an institution's power

An institution can have binding powers (such as a Minister who promulgates an NPS) or a recommendatory power (such as the Parliamentary Commissioner for the Environment inquiring into an environmental issue).



Figure 12.1: Characteristics of institutions

The institutional characteristics outlined above usually exist on a spectrum. One commentator has pointed out that “independence is not a binary condition: institutions can be more or less independent in a range of ways”.¹¹ For example, a centralised entity can be set up as a government department, a Crown agent, an autonomous Crown entity, a state-owned enterprise, a judicial body, or an officer of Parliament. Similarly, an entity does not just need to be “central” or “local”. It can be somewhere in between (eg regional), or have hybrid features to achieve the same result (eg a governance board appointed by central and local entities). As an example of how institutional characteristics might change within an existing entity, we examine the current and potential future characteristics of the EPA in Figure 12.2.

As we explore various institutional characteristics (and some of the options they give rise to) below, it is also worth bearing in mind the roles a future system would be expected to play. In Chapter 6 we identified a number of distinct roles, including setting environmental limits, making trade-offs, allocating resources, implementing te Tiriti o Waitangi, and pursuing

positive outcomes. How we orient our institutions is particularly important here, because they will be the ones responsible for doing those things. That does not mean we should have separate institutions responsible for each role (eg one for setting limits, another for making allocative decisions etc), as there can be good reasons for combining more than one role in a single entity (eg where allocative choices are made based on who would produce the most positive outcomes). However, institutions will need to have combinations of characteristics that help them perform their range of roles effectively. That has arguably not been the case in the current system; for example, the Environment Court (an independent entity) has been left to determine value-based decisions around allocation, while Fisheries New Zealand (concerned with management of a specific subject) has lacked the influence to address impacts on that subject from other sources (eg sediment from land). In future, it may be that an institution charged with imposing environmental limits might have quite different characteristics (eg more independence, perhaps more centralised, and with a focused mandate) than one expected to make trade-offs that reflect the changing values of local communities.

Type of characteristic	Where the EPA currently sits	Future options for change
Independence	Semi-independent of the Crown (a Crown entity)	Make less independent by embedding as a business unit within a more “operational” Ministry for the Environment
Centralisation	Highly centralised	Make more devolved by establishing semi-independent branches focused at a regional level
Subject focus	Fairly diverse (eg focused on hazardous substance and new organisms, consenting in the EEZ, enforcement under the RMA)	Broaden by extending jurisdiction to consenting under RMA regional coastal plans
Geographical focus	Focused on the EEZ in the marine context	Broaden to include consenting in the coastal marine area
Breadth of task	Focused on regulatory, enforcement and operational tasks	Expand to include advocacy and regulation making (eg setting national standards under the RMA) and EEZ consenting (reclaiming this role from boards of inquiry)
Formality of creation	Created by a bespoke statute	Recreate the EPA as a business unit within a more “operational” Ministry for the Environment
Nature of mandate	Fairly vague, with mandates defined by different statutes under which it has functions	Give the EPA a strongly protective umbrella mandate in the EPA Act itself
Degree of power	Fairly weak to moderate	Increase its power to provide final decisions on consents in the EEZ or make regulations in the coastal marine area

Figure 12.2: Current and potential future institutional characteristics of the EPA

12.3 Independence and accountability

The independence of an institution generally refers to the degree to which it is free from control or influence by politically accountable institutions. There is a continuum from wholly independent (eg the Environment Court and Parliamentary Commissioner for the Environment) to very close to government (eg the Ministry for the Environment and Ministry for Primary Industries). The other side of this coin is accountability: the degree to which voters can choose to elect or remove members of an institution (eg councils, members of Parliament and, to some extent,¹² Ministers have a high degree of accountability).

Direct accountability is generally appropriate when decisions involve values, or at least where there is a significant lack of consensus over values. In the marine context, that arguably encompasses many different decisions. Accountability is most important where an institution has (or can have) regulatory powers to bind those who do not consent to being bound. That is why the courts do not legislate, and why environment judges are extremely careful to justify their appellate authority on the merits of a decision against the wording of the RMA itself – these are legal, not policy decisions.¹³

Directly accountable institutions in the current oceans management system are fairly limited in range; they are largely comprised of Ministers and councillors (albeit split across many different councils).¹⁴ That does not make the need for independent, expert and transparent *advice* to accountable institutions unimportant.¹⁵ That is essential to make sure that they frame the actual value-based questions to be addressed and do not stray into matters requiring objective legal or scientific assessment (eg decisions about undertaking enforcement action).¹⁶ There can be tensions within institutions when staff are charged with both providing free and frank advice and implementing the policy agendas of elected officials. We have a strictly apolitical public service in Aotearoa New Zealand, but institutional cultures and therefore the lenses through which advice is given, can still be quite different. That is by no means a bad thing, but it has risks as well as benefits.

However, there are also risks in having unaccountable persons determining value-based questions. Scientists and judges have no particular moral claim to tell us what we should do (unless clearly spelled out by the law) and are less accountable to communities for their decisions,¹⁷ as are unelected officials within government departments or councils. One commentator has observed that “most decisions on environmental matters have to be made based on political

considerations”.¹⁸ That rings particularly true in the highly contested marine space, where decisions about where MPAs are located, the distribution of rights between commercial and recreational fishing interests, and whether to allow deep seabed mining are highly politicised subjects. That said, while political considerations might be dominant, such decisions can still be translated into clear and transparent laws, at which point they become amenable to independent interpretation.

It is most appropriate to use accountable institutions for decision-making where values need to be determined rather than implemented.

As explored in our work on resource management reform, independent institutions have most significant value in four cases:

- where values are not at stake (eg a role is purely technical or expert, such as in the provision of scientific and cultural advice to inform decision-making),¹⁹ where there is broad and durable social consensus over values (eg freedom of access to beaches), or where value-based decisions have been clearly specified in law (eg MSY)
- where there is a need for stable and durable policy, in that long-term interests are at stake or predictable investment signals are needed (eg for emissions pricing and long-term rebuild of threatened species populations), even where political dynamics might fluctuate considerably
- where commercial independence is necessary for economically efficient management or to depoliticise operational decisions, but where the public interest is still sufficiently strong to prevent complete privatisation (eg when delivering infrastructure)
- where the independence of one institution would enhance the accountability of another one.

This last point is particularly important. Institutions are only truly accountable if the people they are accountable to (ie those voting) are informed about their performance. Thus, while a balance between accountability and independence can be achieved by blending those elements within a single institution (eg an autonomous Crown entity, which is ultimately answerable to Ministers but operates at arm’s length), an institution can also be held accountable by separating the decision-

making of an elected body (eg a Minister) from the oversight or scrutiny of a completely separate independent one (eg a judicial body or a watchdog like the Parliamentary Commissioner for the Environment or Climate Change Commission).

Independent institutions have important roles in a number of situations, such as where value-based judgements are not in play, where long-term policy stability is important, and where they hold accountable entities to account.

So what does this mean for institutions in a future oceans management system? One thing to ponder is whether decisions currently taken by highly accountable institutions (eg Ministers supported by ministries)²⁰ should be shifted to more independent ones, or whether this balance should at least be recalibrated. For example, it is not abundantly clear why some things are determined by strongly independent decision-makers (eg coastal permits by the Environment Court) while others are left to political discretion (eg Ministers determining fishing sustainability measures and the deployment of MPAs). The appellate role of the judiciary is something for policy makers to consider in system reform.



Recreational fishing, Firth of Thames

A spotlight on the role of the courts under the Fisheries Act

Unlike under the RMA, there is no provision for merit appeals against decisions by the Minister of Fisheries on sustainability measures under the Fisheries Act. It means that those with property rights directly affected (quota owners) and those whose local/regional environment is affected (local residents and marine users) have no ability to challenge the merits of decisions on appeal. This has led to the use of judicial review as a way of resolving substantive issues, a tool that is poorly configured for the task, and which was never intended for such use. For example, in Chapter 10 we described litigation focused on the critically endangered Māui dolphin, where ministerial decisions to impose controls on fishing methods to protect the dolphin were successfully challenged via judicial review on the basis of technicalities. The legal challenge did not change the final decision but delayed it for several years.

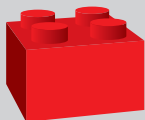
Providing for a merits appeal within the Fisheries Act may provide a more considered check and balance on decision-making in the interests of achieving the best outcome. Alternatively, sustainability measures could be mandated under the RMA (or its replacement, the NBA), making use of that Act's existing machinery for merit appeals to the Environment Court.²¹

Either way, the question boils down to one key matter: is the sustainability purpose of the Fisheries Act sufficiently more value-based than the sustainable management purpose of the RMA to warrant less judicial oversight? Arguably a lot of fisheries decisions are *more* technocratic than RMA ones, in light of the framework's more specific and measurable objectives (eg determining MSY, including hard and soft limits under the Harvest Strategy Standard).²²

On the other hand, there are some decisions taken under the RMA that are *not* amenable to appeal. Notably these include decisions on national direction, including on the mandatory NZCPS. Moreover, the courts cannot overturn a decision by the Minister of Conservation not to approve a regional coastal plan. This suggests that the distinction is less about the judiciary's role under the RMA and Fisheries Act, as it is about the courts' oversight of central and local government. In other words, is independent oversight under the RMA needed as a check and

balance on “unruly” local democracy, but not on the value-based decision-making of more sober minded Ministers where the national interest is at stake?²³

Of course, that raises other questions – like the extent to which either of these statutes (or others, like conservation statutes) *should* involve the exercise of discretion, or whether some of the outcomes sought should be specific and objective enough to enable determination by more independent authorities like specialist courts. For example, if the RMA/NBA were to have a specific purpose for the establishment of mandatory environmental limits (as is proposed), there might be potential for national level limits (eg standards for wastewater discharges to the marine environment) to be subject to appeal alongside council plans. Such things would no longer be about value-based trade-offs – they would be about implementation of a subjective judgement already made by Parliament through legislation. To the extent that value judgements remained (eg in determining the TACC and therefore the relative allocation of rights to commercial and recreational fishers), this could remain beyond an appellate jurisdiction.



The role of the courts could be expanded in a future oceans management system to include appellate authority over the merits of some fisheries decisions and some national direction under the RMA/NBA.

The courts are not the only independent decision-makers in the system, and they only determine disputes that are brought before them. More proactive decision-makers could also be made more independent in the future. For example, the practice of councils using independent commissioners to determine consent applications in the coastal marine area could be formalised or required. That would align the powers of councils with that of Ministers, who can call in consents to be determined by a board of inquiry but have no power to determine them themselves.²⁴ A consenting function in the coastal marine area could even be given to the arm’s length EPA, or a new Oceans Agency (into which the marine parts of the EPA could be merged). In the EEZ, the more independent EPA could reclaim its consenting function from the ad hoc boards of inquiry

appointed by the Minister (since amendments to the EEZ Act) or be subsumed into an Oceans Agency which would perform that function.²⁵

However, there is a potential wrinkle in such options if consenting processes continue to perform an allocative function. For example, value-based decisions may still need to be made if attribute weighted tendering processes were applied to coastal occupation rights. Would it be appropriate for such calls to be made by an unelected EPA or a court on appeal? At present, it has been left to the judiciary to suggest, based on a creative reading of the largely silent RMA, that it might be able to allocate some resources to one applicant over another based on who would best achieve the purpose of the Act, not just who applied first.²⁶



Snorkelling, Mokohinau Islands

Raewyn Peart

This may suggest a need to separate more independent “environmental” decision-makers (and processes) from more accountable ones that deal with allocative issues.²⁷ One potential solution may be to ensure that *planning* processes, run by accountable entities, proactively engage with allocative issues (eg principles for allocating recreational and commercial catch, and policies concerned with allocation of occupation of coastal space). Consenting could then be done via more independent decision-makers.

A spotlight on allocation

It would be possible for many different kinds of institutions to allocate resources. Their ideal characteristics will, however, depend on what we think the allocative role is all about:²⁸ whether it is about determining values (requiring accountability) or simply applying them (allowing independence); whether it is about resolving private disputes or pursuing the public interest; and whether we see a public interest in the uses to which marine resources are put beyond just addressing the adverse impacts that they cause.

Objective allocative processes (eg auctioning to the highest bidder or a first in time consenting process) can be legitimately overseen by independent authorities (eg the Environment Court has determined rules about which application is in fact submitted “first”). However, value-based choices (eg setting a TACC to determine commercial and recreational shares of the TAC, allocating coastal space through an attribute weighted tendering process, negotiating rights through the Tiriti settlements, or spatially allocating areas to different types of activity in a spatial planning process) arguably require more accountability.

Institutional settings therefore depend heavily on resolution of the normative questions grappled with in Chapter 7: what are the aims of allocation and who should get what? To what extent should clear allocative objectives be set out in legislation or left to the discretion of decision-makers? For example, if environmental effects are acceptable, does it matter whether an area of the sea is used for aquaculture, offshore wind energy or fishing? If fish stocks are sustainable, does it matter whether they are frozen for export, processed and sold in local communities, or used to support the development of nutraceuticals? And if the Crown maximises its royalties, does it matter if petroleum remains in the ground, is refined for combustion or is used to create plastic products?

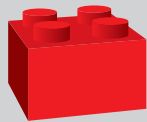
The degree of independence that institutions making allocative decisions should have, may depend on the extent to which the legal frameworks under which they operate, contain clear allocative criteria. Irrespective of what choices are involved, legislation could address them more directly (eg through clearer allocative principles or market mechanisms), in which case accountable institutions may be less important.

More independent decision-makers could even be charged with making a broader range of regulations, not just determining consents or implementing allocative choices. For example, an arm’s length Oceans Agency or strengthened EPA could be responsible for imposing sustainability measures to achieve the purpose of the Fisheries Act, or national environmental standards under the RMA/NBA. That might be feasible if, for example, accountable Ministers had responsibility for creating more specific strategy and policy in the marine space so that regulation making involved *applying* values, not *determining* them.

As it stands, the NZCPS is not likely to be clear enough to warrant independent regulation-making under it. In the EEZ Act and Fisheries Act there is little formal policy framework at all (see Chapters 3 and 8). This has meant that decision-making committees and courts determining applications for consent under the EEZ Act have been forced to unpick the wording of brief statutory principles (eg its approach to precaution) to an inordinate degree, given the lack of policy guidance created by central government. One could argue that the courts have had to step into the breach, to *determine* policy matters via a consenting process, because accountable institutions tasked with this role have failed to perform it. The response, in the context of the EEZ, has been to transfer consenting power from the EPA to (arguably) less independent ministerially appointed boards of inquiry, not to engage in the development of policy guidance that would assist the EPA in exercising the consenting power itself.

In a future system, value-based calls could be made more specific and directive up front through policies and plans, justifying a more independent and technocratic approach to setting regulatory environmental limits in the marine space.²⁹ It is telling that where there is a reasonably clear statutory vision, as in the case of the Waikato River, an arm’s length institution such as the Waikato River Authority (with board members appointed by iwi and the Crown) can wield substantial powers under the RMA.³⁰

Moreover, the proposed use of a targeted, separate and uncompromising purpose for environmental limit setting under the proposed NBA might enable the use of an independent agency to translate that into regulation (eg limits on pollutants like sediment and nutrients entering the marine environment). In addition, if clear ecological criteria were set for the identification of MPAs, it might even be left to an independent agency to establish a coherent MPA network. However, this is much more likely to require a discussion about values and trade-offs, warranting leadership by Ministers (and potentially councils and mana whenua) to at least determine where MPAs would *not* go.



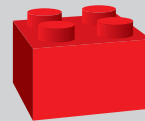
Some regulation making powers could be shifted to more independent or arm's length institutions, including some sustainability measures for fisheries and a new class of environmental limits under the RMA/NBA. This would, however, require accountable institutions (or legislation itself) to provide clear and direct policy guidance (eg on bottom trawling or sediment) amenable to independent interpretation.

Instead of making a stark choice between independent or accountable decision-makers, particular processes can take a more nuanced approach where each type of institution has a role. For example, boards of inquiry are often used under the RMA to provide recommendations on national direction that must be considered by Ministers. Independent hearings panels have also been used in both formal and informal ways as a counterweight to the decision-making of elected councils.³¹ Sometimes their roles are advisory only, but in other cases they have more influence.

The use of an independent hearings panel to hear submissions and make recommendations to the council on Auckland's Unitary Plan offers an interesting example of the latter.³² There, the ability for people to appeal council decisions was dependent on the extent to which they departed from the panel's recommendations. This provided a strong incentive for the council to accept the independent recommendations, but at the same time, truly contentious value judgments made by an independent body (including in the marine space) could still be pushed back on by an institution that represents its community. A broadly similar model (which would apply in the coastal marine area), has

been proposed by the Randerson Panel under a future NBA, to reduce reliance on court appeals.

A similar approach could even be applied to planning under conservation laws and the Fisheries Act, or when preparing "marine plans" under an integrated Oceans Act. For instance, independent hearings panels on fisheries sustainability measures or proposed MPAs could be populated from (or appointed by) an independent Oceans Commission.



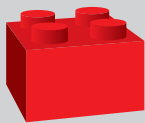
Independent hearings panels with stronger legal influence over final decisions on planning and regulatory instruments could be rolled out in a future system. This has been proposed for combined plans under the NBA but could be extended to planning processes under other marine legislation, like the Fisheries Act and conservation statutes.

Even if regulatory decision-makers remain towards the accountable end of the scale, another key question is how independent expert *advisory* institutions should be. Government departments already have obligations to provide free and frank advice, alongside their role of supporting Ministers, and they represent important hubs of expertise and resources. However, in recent times there has been a trend towards formalising more independent streams of information and advice. For example, the New Zealand Conservation Authority provides advice directly to the Minister of Conservation as well as the Director-General of Conservation. The Guardians of Fiordland and the Kaikōura Marine Guardians create a direct conduit of information from communities on the ground to the Ministers of Fisheries and Conservation.

This trend could be continued in the future, not just through the creation of community led guardians with direct access to Ministers, but also through more systemic institutional arrangements. For instance, the National Fisheries Advisory Council, which the Minister of Fisheries can establish under the Fisheries Act, has never been constituted. It could be made a mandatory part of the system rather than something to be created on the whim of government. This would bring it in line with the Conservation Authority, which is established by the Conservation Act itself.³³ A similar institution could be established under the RMA to support implementation of a refreshed NZCPS (a Coastal Advisory Council, akin to the recently created Chief Freshwater Commissioner).

The Māori Advisory Committee model under the EEZ Act could also be replicated in other legislation like the RMA, Fisheries Act and conservation legislation. However, advice on mātauranga Māori cuts across the whole system (te ao Māori is not siloed into legislative boundaries), so serious thought could be given to establishing a cross-cutting independent body like a Tikanga Commission to feed advice into all statutory processes (including integrative ones like marine spatial planning). Although this would likely create some synergies and efficiencies, it is important to note that the work of the Commission would not obviate the need to consult with individual iwi/hapū in any particular case. Mātauranga requires interpretation in its specific cultural and geographical context by mana whenua themselves.

Such institutional questions need to be explored within a broader constitutional context, including considering the recommendations in *He Puapua* and *Matike Mai*, and ultimately be resolved by Māori and the Crown.³⁴ We explore more systemic power-sharing options later in this chapter.



More independent advisory institutions could be established in a future system, whether through a place-based guardians model or domain-based entities. A Tikanga Commission could be established to provide advice into all statutory processes (including integrative ones like marine spatial planning).

Going even further, the Parliamentary Commissioner for the Environment's role could be expanded to be a more structured source of advice in statutory processes (eg to be involved in the preparation of instruments related to the oceans, including regional plans, fisheries plans, and marine spatial plans, and to provide recommendations on sustainability measures). Adequate resourcing would be required to support such an expanded role. We could even contemplate the creation of a bespoke Oceans Commission, akin to the Climate Change Commission, to take on that role (see spotlight further below).

The provision of advice requires robust information, which is not always easy to come by in the marine environment. It can also be fragmented across different agencies having different responsibilities and mandates. Irrespective of where advice comes from, it is important that sufficient data and information is available to support it, and this requires appropriate institutional settings.

A spotlight on an Environmental Research Council

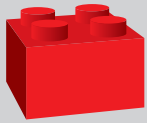
The Parliamentary Commissioner for the Environment, in his review of funding and prioritisation of environmental research, suggested that “central government needs to speak with one voice and it should do that through a regularly updated environmental research strategy led by the Ministry for the Environment.”³⁵ He also proposed a reform option that “seeks to embed the necessary expert skills within an Environmental Research Council – a dedicated funding agency”.³⁶

This proposal to separate environmental research priorities (which would be set by an accountable institution) from research funding (which would be dispensed by an independent institution in accordance with the research priorities) is an interesting one. It might be possible to create a focus for oceans research within such a structure, through a Marine Research Division operating under the auspices of a broader Environmental Research Council (or independently as a *Marine* Research Council).

Such a marine-focused entity could make recommendations on priorities for marine research (therefore informing the broader environmental research strategy led by the Ministry for the Environment), foster collaboration between tertiary institutions, crown research institutes and independent research organisations to meet priority marine research needs, and oversee the curation of marine information. It could include a branch focused on the strengthening and incorporation of mātauranga Māori.

The Marine Research Division/Council could bring together relevant sources of “trusted” information in an integrated way including evidence accepted in Environment Court proceedings. If fisheries research were integrated into a broader environmental research initiative, this could serve to expand the ambit of its scope to include a wider range of ecologically focused information on the marine environment. In the project's working paper we looked at changes that could be made to fisheries assessment working groups to include more sources of information.

A degree of independence in making decisions about the funding of marine research is a particularly interesting prospect (if we had the right tools) given increasing financial pressures on marine scientific research in recent times.³⁷



An independent entity focused on supporting marine research could be established, either as a marine division of an Environmental Research Council or as an independent body (Marine Research Council). It could include a branch focused on strengthening mātauranga Māori.

An independent Oceans Commission mentioned earlier could play a role well beyond just the provision of advice to relevant government departments and councils. It could also act as a constitutionally significant check and balance in the system by being a watchdog focused on the marine environment. While the Parliamentary Commissioner for the Environment is an important institutional pillar, the Climate Change Commission provides a domain-based example of why a more structured and specific role for independent institutions can be valuable in holding government to account, and a marine-focused Commission could perform a similar role. The focus of elected institutions needs to be watched closely by an independent body that is not on a short term political cycle.



Raewyn Peart

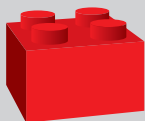
Tokerau Bay

A spotlight on the Climate Change Commission model

In order to set targets for greenhouse gas reduction, both the Climate Change Commission (which is independent) and the responsible Minister (who is accountable) have important roles. The Commission recommends carbon budgets (maximum emissions allowed over a period) and the Minister sets them, thereby reducing politicisation of the budget setting process while retaining ultimate public accountability for decisions. Each institution has characteristics that are complementary – the independent Commission has recommendatory powers, while the accountable Minister has binding powers. The Minister must provide reasons for rejecting the Commission's recommendations. The interplay between the institutions is crucial here, and would not be achieved by creating a single institution that combined elements of each. Nor does the Parliamentary Commissioner for the Environment model provide the structured approach needed.

Although climate change is a uniquely cross-cutting problem, and affects all other areas of government policy, there has been a noticeable move towards designing various commission models to provide similar checks and balances within the system. This can be seen in the establishment of a Chief Freshwater Commissioner with roles in freshwater plan making, and in the creation of an Infrastructure Commission. The oceans could see a similar model, especially given that marine management is currently more fragmented across legislation and agencies than freshwater, and would therefore particularly benefit from a more cross-cutting statutory watchdog.

An Oceans Commission could take different forms (eg an Officer of Parliament, an autonomous Crown entity, or its own novel status). It could even have some regulatory or appellate powers (eg it could be the place in which appeals on the NZCPS, EEZ regulations or sustainability measures were heard), or advocacy roles (eg by having legal standing to appeal a TAC or a rebuild plan for fish stocks). But its essence would be some form of independent oversight or watchdog body with a clear mandate to defend the interests of the moana.



An independent Oceans Commission could be established to fulfil a similar place in the system as the Climate Change Commission. Alternatively, both could be combined into a broader Futures Commission (potentially an expanded Parliamentary Commissioner for the Environment) to cover the whole environment.

12.4 To whom should institutions be accountable?

When thinking about the “accountability” of institutions, there may be a tendency to think about accountability to *voters*. However, non-elected institutions can still be accountable, just to other constituents. For example, *mana whenua* are not “independent” *per se*; leadership is accountable to Māori communities, not to the broader public. Māori have their own internal processes for decision-making and leadership based on *mana* and consensus rather than Western style elections and voting. Such things are not often visible on the face of legislation, sometimes creating uncertainty about the authority to speak on behalf of Māori. This raises the question as to whether accountability mechanisms *within* *iwi* and *hapū* should be more formally defined, especially if significant powers are to be shared with the Crown in the future through co-governance mechanisms, customary marine title, or the transfer of statutory authority. Here, Māori would be acting as public authorities rather than stakeholders. Accountability intersects with another important characteristic – an institution’s formality of creation – and we discuss this further below under that heading.

There is also a live question as to the extent to which fisheries management decisions should be devolved to quota holders and operators or retained by the Minister. This is not just about who would be most effective in achieving the desired outcomes under legislation (MSY) but also who decision-makers should be accountable to (owners of a shared stock, or the public more broadly?). We discussed this in Chapter 8 when exploring the role of property rights as a tool, but it can equally be regarded as a question of institutional design.

When developing policy (eg a National Planning Framework or a National Oceans Policy) Ministers could be made accountable in a more structured way to Parliament itself. For example, provision could be made for scrutiny of policy by select committees, to obtain cross party consensus where possible and (hopefully) avoid policy swings across changes in

government. Some have suggested increasing oversight by requiring government agencies to provide an annual report to Parliament on things like MPA designation and management.

A more radical way of thinking about accountable institutions is that there could be some which are accountable to future generations. Institutions that might be commonly thought of as “independent” may in fact be better thought of as reflecting a different type of democracy in action, where the constituency is quite different to those alive today. Wales provides an interesting example of this.

A spotlight on the Future Generations Commissioner in Wales

In Wales, a “Future Generations Commissioner” has been appointed who acts as a guardian for the future generations in Wales and is also tasked with encouraging public bodies to take greater account of the long-term impact of the things they do.³⁸ The Commissioner has advice, research and recommendatory roles not unlike that of the New Zealand Parliamentary Commissioner for the Environment. However, the Commissioner also has the power to review public bodies and they must take all reasonable steps to follow the course of action recommended by the Commissioner, unless there is a good reason not to do so. The Commissioner is also required to publish a “future generations report” before each general election.

This Welsh Act represents a new generation of sustainability legislation and is something that Aotearoa New Zealand could take inspiration from.³⁹ In our work on resource management reform, we looked at the similar concept of a Futures Commission, and this could be tailored to the marine environment (eg by having one commissioner responsible for the interests of future people in the moana). What the “interests” of future generations were would have to be considered closely, and the Commission’s mandate drafted with great care. It would not necessarily be limited to protective concerns. For example, future generations might arguably benefit from the technology that comes from selective mining of rare minerals, or the deployment of some forms of marine development (eg offshore wind and aquaculture). Much comes down to what objectives should underpin a future system, and how we approach the principle of inter-generational equity (see Chapter 7).

Institutions can be accountable, not only to different degrees, but also to different people. Notable are institutions that are accountable to mana whenua. It can sometimes be unclear exactly who institutions should be accountable to, including when decisions are delegated to industry (self-management). What initially looks like institutional independence can sometimes take the form of accountability to other groups, including future generations.

In Chapter 8 we also discussed a rights for nature approach, under which legal personhood could be established for the moana (or parts of it). This requires careful thought when it comes to institutional design, because we cannot simply declare that the ocean is a person and consider the job done. It requires human representation.

Although this goes well beyond normal conversations about what “accountable” institutions look like, it is convenient to consider at this juncture, because it expands the question of who institutions should be accountable to (in this case, the moana itself). Nature can’t vote, of course. But then neither can children, and that does not prevent the system providing mechanisms by which children can hold adults accountable in other ways.⁴⁰

There are a number of options for how institutions could support legal personhood. The fact that existing examples of personhood in Aotearoa New Zealand have been designed to effect te Tiriti settlements means that they provide useful ways in which personhood could reflect a partnership with mana whenua. If we were to grant legal personhood to the moana more generally, we would need to tailor these models to quite a different context (and with a range of quite different interests involved).



Piritahi Marae, Waiheke Island

A spotlight on the Whanganui River and Te Urewera

The Te Awa Tupua (Whanganui River Claims Settlement) Act 2017 establishes legal personhood for the Whanganui River and the roles of those who act on its behalf. This is achieved by a declaratory provision:⁴¹

Te Awa Tupua declared to be legal person

- (1) Te Awa Tupua is a legal person and has all the rights, powers, duties, and liabilities of a legal person.
- (2) The rights, powers, and duties of Te Awa Tupua must be exercised or performed, and responsibility for its liabilities must be taken, by Te Pou Tupua on behalf of, and in the name of, Te Awa Tupua, in the manner provided for in this Part and in Ruruku Whakatupua—Te Mana o Te Awa Tupua [settlement agreement].

The Act establishes “Te Pou Tupua”: the “human face” of the river. Te Pou Tupua must act and speak for and on behalf of Te Awa Tupua, and uphold a set of principles (see Chapter 8). Other decision-makers outside this framework (for example, local councils) who impact on the river must have particular regard to those principles.

As shown in Figure 12.3, the framework of the legislation splits up the institution that represents Te Awa Tupua as a legal person (Te Pou Tupua) from the institution that manages it (Te Kōpuka). Te Kōpuka develops Te Heke Ngahuru (a management strategy) for Te Awa Tupua. It must have particular regard to the Te Awa Tupua status and Tupua te Kawa (the intrinsic values that represent the essence of Te Awa Tupu and which are set out in the Act). Other decision-makers outside the framework must also have particular regard to the strategy. The framework is funded by Te Korotere, a Crown contribution made as part of the settlement agreement. It is a lump sum of \$30 million that must be managed by Te Pou Tupua.

Te Urewera has a comparatively simpler institutional framework than Te Awa Tupua (see Figure 12.4). Under Te Urewera Act 2014, the Te Urewera Board both acts on behalf of and in the name of Te Urewera and provides governance for Te Urewera in accordance with the Act.⁴²

The Board is responsible for preparing and approving the management plan. The plan's purpose is to identify how the purpose of the Act will be achieved through management, and to set objectives and policies for Te Urewera.⁴³ Additionally, the Board gives advice on the implementation of the plan. The chief executive of the Board must prepare an operational plan with the Director-General of Conservation, which seeks to implement the management plan by identifying funding; projects, activities and contracts; and opportunities for members of Tūhoe to participate in management activities.

Comparing the two systems, Andrew Geddis and Jacinta Ruru have commented that the areas' previous regimes have influenced the new ones.⁴⁴ Te Urewera was managed by the Department of Conservation, which had to consult with Tūhoe – so it was relatively straightforward to place the guardianship of Te Urewera with a body in which the Crown and Tūhoe work together.⁴⁵ Conversely, the Whanganui River had multiple users with differing and potentially conflicting interests (including surrounding landowners), which were managed and balanced by local councils.⁴⁶ Providing input for these various interests resulted in a far more complex governance structure which separates the advocate and management bodies.⁴⁷

Interests of Te Awa Tupua and Tupua te Kawa (statutory)

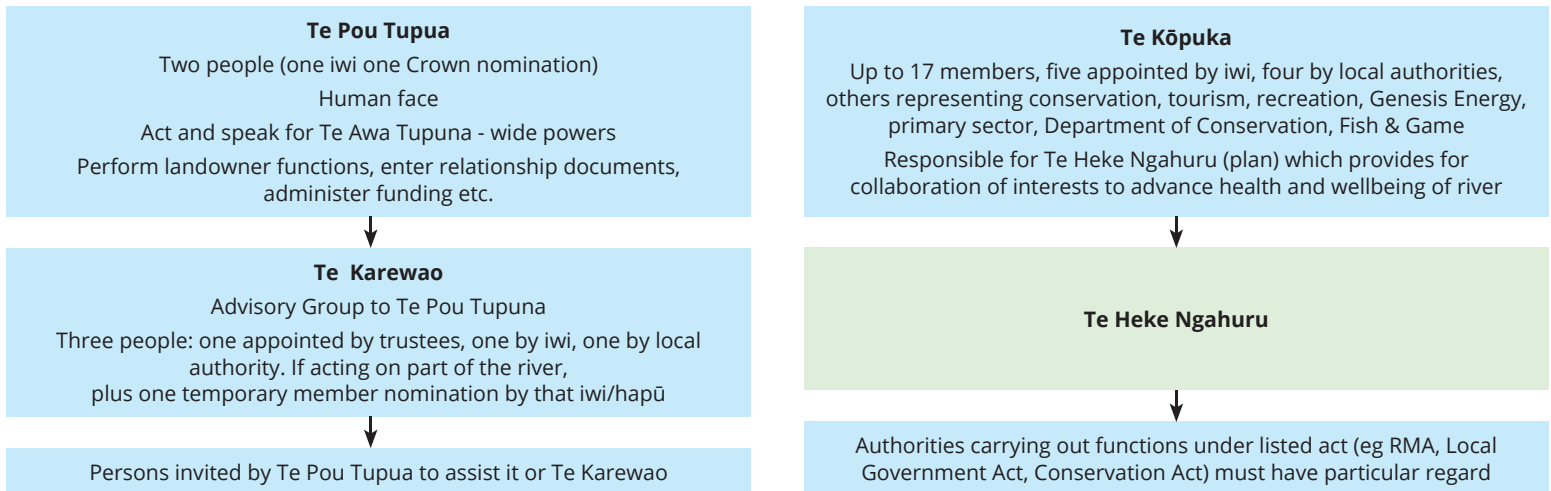


Figure 12.3: Institutional framework under Te Awa Tupua Act (simplified)

Principles for implementing the Act, activity permit and concession requirements

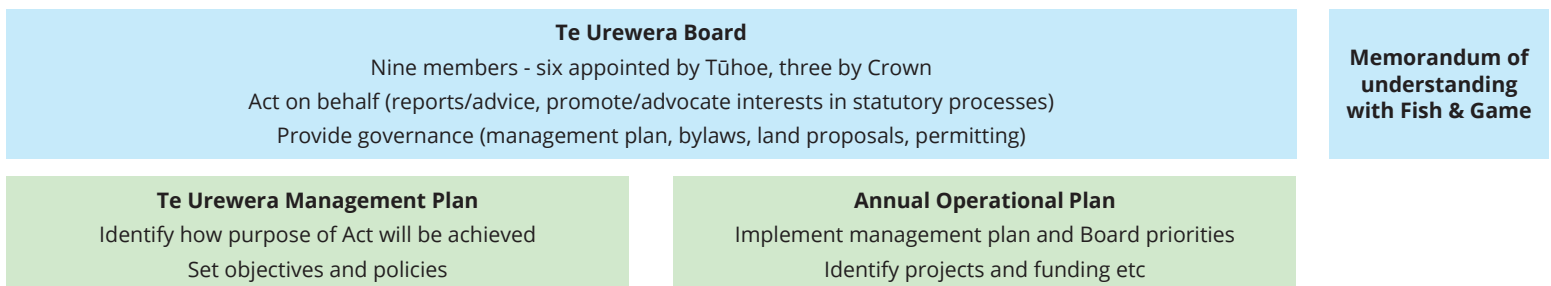


Figure 12.4: Institutional framework under Te Urewera Act (simplified)

The above examples suggest that if a legal personhood framework were to be applied to the ocean on a large scale (eg all of Aotearoa New Zealand waters, or whole biogeographical regions), it would likely require a relatively complex model to account for all existing interests, so the Te Awa Tupua model may prove more useful than Te Urewera. That said, the moana likely requires an even more complex governance arrangement, given that *all* New Zealanders (including *all* Māori) have an interest in it. How mana whenua could be represented (and in what measure) at a national level would be a challenging question, including whether coastal iwi and hapū should have a greater degree of influence. Lessons could potentially be drawn from the fisheries settlement (including the role of Te Ohu Kaimoana), although that is in some ways a simpler context (it essentially apportions well defined property rights rather than ongoing governance responsibilities).

Other institutional options to support legal personhood at a broad scale can be seen overseas. A 2012 law in Bolivia, for example, has authorised the creation of institutions to support the rollout of rights for nature: a Mother Earth Ombudsman's Office (which has not yet been created) and a Plurinational Mother Earth Authority, which oversees climate policy.⁴⁸ That kind of thinking could transform existing independent entities like the Parliamentary Commissioner for the Environment or shape the design of new ones (eg the Oceans Commission described earlier).

However, the Urewera model may provide a more useful starting point for the institutional arrangements underpinning legal personhood for specific MPAs, given that it is also a protected area (a former national park). At a broader scale, an interesting possibility is for multiple MPAs or biogeographical regions, as legal persons in their own right, to be able to come together to form a national advisory body or advocate for oceans health: a council of MPAs.⁴⁹ A layering of institutions based on personhood for nature could be a good way forward.

It is not obvious who should get to speak for the oceans. On the one hand, institutions representing the moana could be accountable to human communities. For example, a governance entity could be comprised of Ministers holding relevant portfolios, enabling decisions to be made in a more integrated way. Seats could also be appointed by regional councils and mana whenua, supporting inter-agency collaboration. However, this would be primarily about democracy for people and integrated management, not giving the ocean its own voice. It would pay lip service to ecocentrism. It may also run the risk of decisions being dominated by some agencies more than others, given cultural differences between (for example) government departments.

There would be benefits in having, instead, a reasonably independent institutional arrangement at the core of governance, irrespective of the scale at which personhood is applied. A guardians model could be deployed, as in Kaikōura or Fiordland, where members of the community could come together to defend their own backyard. This would allow people who do not usually have a strong voice in the system to have a say, although it may be risky to assume that local communities will always act in the interests of nature (as has been seen with issues in some councils).

An Oceans Ombudsmen could be created, not to act on behalf of the ocean, but rather to review government actions to make sure they aligned with its statutorily defined interests. This role could be performed by the Parliamentary Commissioner for the Environment. However, this would be a reactive framework, in that it would be about preventing infringement of rights rather than actively exercising them. Alternatively, an expert board, appointed by a mix of government, mana whenua and potentially others (eg the Parliamentary Commissioner) and with a reasonably long tenure, could provide governance oversight. This could make the board less susceptible to shifts in politics driven by stakeholder interests or the changing economic fortunes of local communities. An interesting example is a proposal for the Wadden Sea.



Point Chevalier Beach, Auckland

Raewyn Peart

A spotlight on the Wadden Sea

Earlier, we shone a spotlight on a proposal for giving legal personhood to the Wadden Sea in the Netherlands, via legal “natureship”. This status would grant the Wadden sea the rights and ability to act as a legal person. But there would be a careful institutional framework behind it.

A board would be charged with making decisions under a clear statutory purpose, but would have to cooperate with two previously responsible ministries, and with the national government. However, it would ultimately make its own decisions. The board would be independent to ensure policy-making is solely based on the natureship’s interests and not on the wider policy concerns the ministry or government may have. However, there is the option of having a council within the natureship which is composed of the cabinet ministers most involved – their portfolios would continue but under the new governance framework of the natureship.

A similar approach could be taken in Aotearoa New Zealand for MPAs. But it is interesting that this proposal is to apply to a relatively *degraded* part of the environment, in order to halt and reverse decline. That is quite different to this country’s approach in the Marine Reserves Act, which is designed to protect *pristine* areas almost as a natural museum or laboratory.

If the moana (or parts of it) were to be given its own legal rights and personhood, careful thought would be needed on how institutional arrangements around it would work. There are many potential options (including those building on Te Urewera and the Whanganui River, or the development of guardians or an Oceans Ombudsman), but such institutions would need to be ultimately accountable to the environment itself.

12.5 Centralisation

When, and to what extent, should institutions in the oceans management system be centrally or locally controlled? Ultimately, the answer to this question is determined by recourse to the principle of subsidiarity, which assigns responsibility according to where the relevant community of

interest lies. The concept of a community of interest is, however, a slippery one. It can be interpreted in many ways, particularly in a space like the ocean, where interests overlap and few people live.

There has long been an expectation that the oceans have a strong national community of interest. The moana is one of the things that defines us as a country. This is reflected in the strong role of the Minister of Conservation in approving regional coastal plans and the mandatory nature of the NZCPS, the relative lack of local government influence over fisheries decision-making, and direct central government control in the EEZ and for shipping.

There are practical reasons for this too. The marine environment is very fluid, and it is hard to define meaningful boundaries. That is particularly the case when it comes to management of mobile resources like fish, where (despite being broken into management units through quota management areas) there is centralised oversight over all fish stocks. It is also the case with marine conservation, where the Department of Conservation is responsible for management and protection of species that can often cross boundaries (land-sea, inter-regional, and territorial sea-EEZ-high seas). And it is equally true of shipping, which by its very nature involves the movement of people and goods across boundaries.

However, there are also significant local communities of interest in the health of the moana, and how it is used. The Productivity Commission states as a general principle that “unless there are good reasons not to do so, decisions should be taken at lower levels of government close to the people affected”⁵⁰ and “in most cases local governments are in a better position to take account of local preferences and circumstances, especially where the effects of planning are also local”.⁵¹ In the marine space, impacts are very often felt locally. But when are there “good reasons” to centralise control? And why not change the starting point and require “good reason” to devolve control?

Take wastewater and stormwater discharges, for example. From an environmental perspective, these are still considered to be the preserve of regional decision-making, and we lack national standards.⁵² After all, seldom does such pollution noticeably spill across regional lines, so what exactly is the national interest in it? Is it because the healthcare system, responsible for dealing with human disease generated from wastewater overflows, is largely funded nationally? Or is it about a shared value that New Zealanders hold, that no one’s health and access to amenities like beaches or kai moana should be impacted by preventable wastewater overflows or polluted stormwater? The answer is not clear, other than that a government with centralising tendencies might choose to get involved.

Part of the difficulty is that questions about devolution involve arguments over fairness. The costs of an activity are not always felt at the same spatial scale as the benefits (or to the same degree). For example, commercial fishing and aquaculture operations may impact on local communities (eg recreational fishers, residents) but they contribute to the wider regional and national economy. An offshore mining operation might provide valuable minerals from a national perspective, but to local iwi or surfers, that is by no means a worthwhile trade off. And this tension is not just between nationally beneficial use and locally valued protection. The costs of protection can be felt locally and its benefits achieved at a national level (eg the establishment of a marine reserve where people value customary and recreational take). At what point does local control amount to “nimbyism of the sea”, and central control amount to an ethically questionable theory of utilitarianism (the greatest good for the greatest number)? These things are hard to measure.

Because *mana whenua* are intrinsically “local” or place-based (including where there is a defined customary marine title area), this adds another dimension to the debate about subsidiarity. Centralised control can be seen as removing influence from *mana whenua* because central government is often far away and disconnected. But devolving responsibilities to institutions that cut across multiple tribal boundaries can equally have issues.

To some extent, in Aotearoa New Zealand we tend to shift powers when it becomes urgent to do so, not by having a conversation in advance about where dominant communities of interest *should* reside or how a balance between them *should* be struck. There is a notable divide between the RMA, defined by a strong presumption in favour of devolution in the coastal marine area,⁵³ and sectoral management for fisheries, mining and shipping, which are defined by almost total centralisation.⁵⁴ Central government jurisdiction under the RMA is by no means absent, but it is determined on a largely ad hoc and reactive basis (eg by the discretionary development of national direction,⁵⁵ intervention in local planning processes, call-in of proposals of national significance, and ad hoc contributions towards infrastructure that local government cannot afford on its own). Is this approach to subsidiarity justified, or something that should continue in a future system?

Such questions need to be asked proactively. That it took three decades after the RMA passed into law for the courts to clarify that regional councils (including in partnership with *mana whenua*) have *some* role in managing fishing activity for broader biodiversity purposes, is astounding.

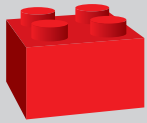
It is a question that, in our view, should have been clear since the inception of the Act. It has taken even longer for central government to contemplate national level regulations for estuaries or pollutants entering the marine environment. Aside from *mana whenua* forcing the issue around ownership of the foreshore and seabed, and in terms of fisheries and aquaculture rights, little progress has been made in terms of broader allocative issues (notably principles around occupation of marine space). And in the EEZ, where centralisation is total, the question of the extent of “local” *mana whenua* rights and interests remains contestable.

It is not clear what subsidiarity means in the marine space, and therefore the extent to which institutions for different domains, sectors and spaces should be centralised or devolved.

A discussion about centralisation gives rise to a number of options for institutional reform. One of the most significant questions is about the role of regional councils in a future system vis a vis central government. This is in two senses.

The first is whether regions should have less responsibility (and central government more) for marine management under the RMA. Some options here could involve relatively minor tweaks to existing institutions. For instance, central government could be required to take a stronger role in the development of national direction under the RMA for the coastal marine area, by (for example) creating regulations (one or more NESs) that give effect to the NZCPS. In fact, this is hinted at (albeit obliquely) in the latest proposals for the NBA, where mandatory limits must be imposed for the marine area and central government is anticipated to audit plans for compliance with national direction.⁵⁶

This responsibility could be given to the Minister for the Environment or, in line with existing responsibilities, the Minister of Conservation. It could include mandatory national direction (both policies and regulations) concerning wastewater and stormwater discharges, water quality in estuaries, sedimentation, and novel chemicals. It could even chart out policies and implementation provisions for establishing a regional network of MPAs that could be created using RMA/NBA tools. The time may have come for central government institutions to shed the baggage of the 1980s and be more proactive in identifying all areas in which there is a national interest, and in producing a single, integrated instrument grappling with them in an integrated way.



Central government could be tasked with a more proactive role in marine management under the RMA, including the mandatory production of regulatory provisions giving effect to the NZCPS and the spatial identification of areas for protection.

A more fundamental change could involve shifting the jurisdictional boundaries of regional councils landwards from the outer margin of the coastal marine area, with the balance of the space being placed under the jurisdiction of a central government agency (eg a strengthened EPA or an Oceans Agency).

Should regional councils be tasked with managing out to 12 nautical miles? Some factors suggest they should not. For one, boundaries *between* regions at this distance cease to make much sense, as the marine environment is much more fluid and less influenced by spatially fixed catchments than on land. Such a distance from shore raises practical issues too. Marine management is a specialised and expensive task, requiring the deployment of marine scientists and significant investment in marine science. Research and enforcement at sea requires the operation of costly vessels. Councils have, as yet, no direct source of funding for this work, apart from when they can piggyback on science undertaken by resource consent applicants and monitoring undertaken by consent holders.

Although there has been the ability to impose coastal occupation charges or tender aquaculture space to raise funds, these tools have not generally been deployed by councils (which have largely relied on land-based rates to fund whatever work is undertaken). Consistent national charging for occupation of the seabed, as part of a revamped allocation regime more generally, could help to address this gap.

As a result, not many councils have sea-going vessels and they have largely left the bulk of their vast marine environments to look after themselves. Even where a marine scientist is employed by a council, this does not enable the build-up of a critical mass of expertise within the organisation. When someone wants to do something new in the marine area, applications are largely considered case-by-case, based on the scientific information provided by the applicant.

The main exception is in areas where a significant aquaculture industry has established, and so the focus of the councils has been drawn into the marine space. Both the Marlborough District Council and Waikato Regional Council

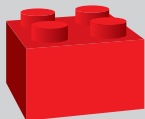
have invested in modelling in order to better understand the cumulative effects of aquaculture, and in the Marlborough Sounds the council has also undertaken work to identify important biogenic habitats and to protect them from further degradation.⁵⁷ In Auckland, despite the large size and capacity of the unitary council (thousands of employees and a rates revenue of nearly \$2 billion),⁵⁸ much of its marine area has yet to be fully mapped and many significant ecological areas in need of protection are yet to be identified in its planning documents. This begs the question: if Auckland Council has been unable to effectively manage its extended marine domain, what hope is there for other much smaller and less well-resourced councils?

The recent proposal to establish salmon farms in open ocean areas around the north and east coast of the South Island also highlights the difficulties faced by councils in effectively managing such activities. New Zealand King Salmon Limited made applications to multiple regional councils, none of which have particular expertise in this kind of activity. Does it make sense for each council to try to come up to speed on the impacts of deep-sea salmon farming for just one application? And what about other novel activities like carbon capture and storage, were an application to be made?⁵⁹

A spotlight on jurisdictional lines in the marine environment

Because of the fundamentally interconnected nature of the marine environment, it is difficult to draw hard jurisdictional lines that align management effort with ecological systems in the same way that largely spatially fixed freshwater catchments can be defined on land.⁶⁰ There is no scientific or ecological basis for the 12 nautical mile boundary between council and central government control. It was based on the political compromises honed through the multinational deliberations leading up to UNCLOS. One could argue, on one level, that this split happens to reflect a boundary where central and regional communities of interest diverge, but that is hardly a convincing argument.

There are many options for where a new jurisdictional line could be drawn. For example, council jurisdiction could include harbours and embayments and open coast out to around the three-nautical-mile mark. It could even be drawn at the mean high water springs mark.⁶¹ The balance of the marine area could be managed by the EPA or a better equipped and resourced Oceans Agency which can build up a critical mass of expertise in marine management.



In a future system, regional councils could continue to have jurisdiction over truly coastal matters, out to a three-nautical-mile boundary or similar. Alternatively, councils could have jurisdiction only to mean high water springs. In either case, other parts of the marine area could be managed by a well-resourced Oceans Agency.

A spotlight on an Oceans Agency

At the moment, the EPA has a relatively limited role with respect to the oceans, and a relatively constrained mandate. As our national environmental regulator, this role could be expanded in a variety of ways in the marine space. For example, a dedicated “Oceans Unit” could be established within the EPA, and its functions expanded to include marine consenting under both the EEZ Act and the RMA. This would have the advantage of building on an existing institution of a roughly appropriate character, and might remove such decisions from the politics and capacity constraints of some regional councils.

This unit could, over time, also form the basis for a more integrated oceans regulator – an Oceans Agency – which could also take on some or all of the marine functions currently undertaken by a range of other institutions, such as regional councils, Maritime New Zealand and potentially even the Department of Conservation. It could even subsume the activities of Fisheries New Zealand and part of the activities of Biosecurity New Zealand (business units of the Ministry for Primary Industries).

An Oceans Agency could be the operational agency for the Oceans Act explored in Chapter 11, and operate at arm’s length from government to ensure that it is seen as politically independent and retains high public regard.⁶² Such an entity would be as much about questions of accountability and independence as it would be about questions of centralisation and devolution. Government entities tasked with environmental management have often struggled with such matters, with allegations that the former Ministry of Fisheries was captured by the industry it was charged with regulating,⁶³ and the Department of Conservation resiling from its statutory advocacy role under political duress and budget cuts.⁶⁴ We have also

seen the EPA stripped of a key decision-making role under the EEZ Act, in favour of ministerially appointed boards of inquiry, after it declined two consent applications for marine mining.⁶⁵ And although the Fisheries Act enables action in relation to environmental and ecosystem issues, the relevant provisions (including the Act’s purpose and environmental principles) remain underutilised.⁶⁶ A stronger agency mandate or duty to use them is arguably required, and could be delivered through the more integrated mandate of an Oceans Agency.

Independence could be achieved through establishing this as a statutory Crown entity, as well as providing oversight of its decision-making by an Oceans Commission (eg in reviewing key planning instruments). There are three types of such entities which are legally separate from the Crown and operate at arm’s length from the responsible Minister, each with a different level of independence:⁶⁷

- *Crown agents*, which must give effect to government policy when directed by the responsible Minister. They include the Energy Efficiency and Conservation Authority, the EPA and Maritime New Zealand.
- *Autonomous Crown entities*, which must have regard to government policy when directed by the responsible Minister. They include Heritage New Zealand Pouhere Taonga.
- *Independent Crown entities*, which are generally independent of government policy. They include the Health and Disability Commissioner, the Human Rights Commission and the Climate Change Commission.

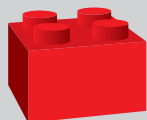
The best institutional form for an Oceans Agency might depend on the range of functions it is tasked with performing, some of which may require greater independence and others a closer relationship with Ministers. An appropriate choice may be an autonomous Crown entity, rather than a Crown agent. This means that an Oceans Agency would only need to have regard to government policy. However, “policy” here simply means the policy priorities of the government of the day. There would also be a robust legislative framework within which different institutions, including the Minister, could exercise influence through due process (eg by creating formal policy instruments for the oceans, like the NZCPS and fisheries plans).

The Oceans Agency could absorb staff from existing marine agencies, and build on their expertise, but would need to develop specialist marine science, marine spatial planning and environmental assessment capacity. Māori input into the Oceans Agency's decisions could be supported through a strengthened Ngā Kaihautū Tikanga Taiao model (building on the EPA's statutory Māori Advisory Committee).

An integrated Oceans Agency may have similar benefits and risks as an Oceans Act. For example, it could cause fragmentation across the land-sea divide (especially if it were to take on the marine functions of the Department of Conservation concerning species protection), and the organisation may lack a clear purpose or mandate because it tries to achieve too much. There is something to be said for a sharp institutional purpose. However, centralising and integrating marine responsibilities could help to coordinate the use of tools that are (or are not) currently wielded by distinct institutions with different mandates, budgets, processes and chains of accountability

Another option would be for regional council seaward boundaries to be based on ecological factors (rather than 3 nautical miles). An ecologically based boundary might make particular sense in situations like the Hauraki Gulf, where a largely confined parcel of ocean is dominated by the influence of the land (or where there are inhabited islands to be managed), and therefore where splitting marine management between different entities across an artificial line might cause more problems of fragmentation than it would solve. Drawing such boundaries would require a national effort to fill gaps in scientific knowledge. But such an exercise would be valuable, not just in drawing jurisdictional lines, but also in supporting substantive ecosystem-based decision-making.

At workshops, we even heard some support for the *extension* of regional council boundaries beyond the coastal marine area. That would require a significant injection of new resourcing (and likely novel funding mechanisms, as land-based rates would not increase) as well as a generous interpretation of a regional community of interest. Should managers of the oceans around Rangitāhua/Kermadec Islands be accountable to the residents of Northland? Yet some extension of council jurisdiction might have the advantage of using existing partnerships between councils and mana whenua in the management of the EEZ, as well as breaking down the artificial barrier between marine zones.



A dedicated Oceans Agency could operate at arm's length from government and be the implementing agency for the Oceans Act. Alternatively, a strengthened EPA could take on this role. Māori input into the Agency's decision-making could be supported through a strengthened Ngā Kaihautū Tikanga Taiao model.



The seaward boundary of regional council jurisdiction could be redrawn, based on the approximate boundaries of ecological systems, including potentially expanding it beyond 12 nautical miles.

The second question about the role of regionalism is whether councils (or others at a local level) should have *greater* jurisdiction for other aspects of marine management, notably fisheries. This is a subtly different question than those about legislative design (whether the RMA should have a role in fisheries). This is because the RMA could see a *greater* role for *central* government (through national direction), not just regional councils (through regional coastal plans).

If the RMA *were* to be used to manage the impacts of fishing (to protect wider biodiversity), should regional councils take on this role? Or should other central government entities with roles under the RMA, like the Ministry for the Environment and Department of Conservation, be responsible? At the more modest end of the scale this could see councils protecting particular features (eg defined reefs) from some



Seafood truck, Manganui harbour

fishing methods (eg trawling), but it might conceivably extend to broader measures like setting regional biodiversity-based catch limits for stocks vital to the stability of ecosystems.

On the one hand, the impacts of fishing can be highly localised. Local depletion of stocks has implications for the health of spatially fixed habitats and related species as well as culturally important areas for mana whenua (including where recognised in a customary marine title). Fishing methods and gear also impact on local marine environments. Those things are the concern of local communities for whom the sea is their backyard, not just an abstract idea of biodiversity. For some, it might be the reason they vote for particular councillors over others.

However, as with management of the coastal marine area beyond (say) three nautical miles, resourcing and expertise would be an issue. Councils may struggle to deal with decisions about fisheries management other than in very tightly defined locations where the links between fishing and biodiversity are relatively well understood (eg around Motiti). This issue might be resolved to some extent by funding and structuring councils to undertake such roles, or by giving councils more input into decision-making, rather than total responsibility.

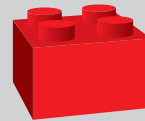
However, efficiency and consistency of management might suggest that national responsibility is appropriate, so that a consistent approach to (for example) gear requirements, fishing methods and spatial protections are imposed across an industry that frequently crosses regional boundaries. While sharing of resources and information between councils is possible (eg through fora like the Coastal Special Interest Group), fisheries expertise should arguably be concentrated to avoid duplication (or shortages) across multiple entities such as councils. As we have said elsewhere:⁶⁸

even where communities of interest are arguably local, and local values are at stake, it can make sense for reasons of efficiency and resourcing for institutions to make decisions at a spatially wider level.

This is not to suggest that the Fisheries Act is necessarily the best place to achieve controls on fishing activity for broader biodiversity reasons. Central government could do so under the RMA. Indeed, to some extent the conversation about *Motiti* is not so much about subsidiarity (there is a strong national community of interest in both fisheries and marine ecosystems), but more about the failure of central government to implement the right tools at the right spatial scales, notably MPAs. If central government partnered with mana whenua in the creation of more nuanced MPAs across the moana (whether under national direction or

conservation legislation), one can legitimately wonder whether a regional community of interest in fisheries management would still be so obvious. It's not that *regions* have to do it; it is that *someone* has to do it.

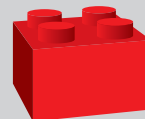
That said, arguments can be made that some fishing controls should be available to councils (eg to manage spatial conflicts with other activities, to protect wāhi tapu, or to safeguard regionally significant ecosystems). The RMA is reasonably well set up to deal with overlapping communities of interest here, including by setting national standards and allowing regional instruments to be more "stringent" in certain circumstances.



Regional councils could be given more jurisdiction over fishing activity for biodiversity purposes, embracing *Motiti* and taking it even further.

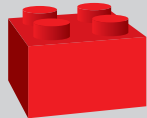
If some institutions in a future system are to remain highly centralised, that begs a further question: to what extent can or should Māori institutions be centralised? There have been efforts to do so for some things (eg the Iwi Chairs Forum or Te Ohu Kaimoana). However, these do not speak for mana whenua. Indeed, it may be challenging to centralise both independent and accountable Māori institutions. Mana whenua have their own tribal areas of authority, and tikanga and mātauranga are place-specific and cannot easily be translated at a national level through an objective or "expert" entity.

That raises questions with much broader constitutional resonance: is it possible or desirable to create a national level co-governance entity through which Māori and the Crown partner for issues like fisheries, mining and biosecurity? Or should partnership occur at a regional level (iwi/hapū and Crown/councils)? There is the question of whether the Tikanga Commission described earlier in this chapter would be a feasible and desirable option, and whether there is need for a more representative, national-level Māori body with which the Crown partners (a form of national Māori executive or even branch of Parliament) for matters including oceans governance. Ultimately, this is a question for Māori to resolve, and rich conversations have been prompted by documents like *He Puapua* and *Matike Mai* (see Chapter 4).

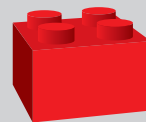


An oceans co-governance entity between Māori and the Crown could be established at a national level and/or regional co-governance partnership bodies could be established at a regional level.

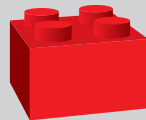
We cannot cover every option that might emerge from a discussion about centralisation of institutions, but we flag that these could be wide ranging. For example:



Three waters services (including wastewater and stormwater which can have significant impacts on the marine environment) could continue to be managed by territorial authorities and council controlled organisations, or there could be greater centralisation via co-governed national entities or state owned enterprises.



An independent Oceans Commission or arm's length Oceans Agency could have semi-autonomous regional branches.



If we were to give rights to nature, the "moana" as a person could be centralised (a single person) or have ecologically defined regions (different parts of the same body) that can speak for their own interests (or both, where branches come together in an Oceans Congress).

This is a broader conversation being had at the moment in the context of three waters reforms, and we have noted in previous work that a more centralised model (and the economies of scale and ability to socialise costs that come with it) may drive better environmental outcomes (including in the marine environment).⁶⁹

The degree to which institutions in a future system should be centralised or locally controlled raises a number of other questions that could be explored by policy makers.



Raewyn Peart

Nelson wastewater treatment works

12.6 Geographical and subject focus

To what extent should institutions focus their attention on particular geographical areas in the marine space? This is a slightly different question to how central or local institutions should be. It is about whether particular areas should be treated differently from the rest of the country in terms of their institutional arrangements.

Some place-based interventions may require more than just targeted legislation that places obligations on existing institutions. They may create entirely new ones that are tailored to the needs of an area. These can be carve outs (eg Auckland Council has its own institutional arrangements in special legislation quite different from others) or they can be additional institutional layers (eg marine guardians in Fiordland and the Hauraki Gulf Forum in the Hauraki Gulf). Te Tiriti settlement legislation has provided a rich source of geographically specific institutional and governance arrangements, because it is often targeted within the tribal boundaries of mana whenua.

There are risks in taking this approach too far. Complexity, accessibility and predictability are some. Efficiency is another. In a small country, can we really justify a proliferation of different kinds of institution in different places? It is challenging enough navigating the differences in how institutions with a nationwide spread, like councils, create and implement planning instruments, without having to contend with alternative kinds and layers of institutions in some places.

So what does this mean for the moana? We could consider which existing place-based institutional frameworks could usefully be rolled out on a wider basis. Should we, for example, create guardians for all inshore marine areas across the country, resembling the role of guardians in Fiordland or Kaikōura? Or for each new MPA or group of MPAs? The point of that might be to provide an alternative stream of information and advice to decision-makers from those on the ground with a mandate to protect a particular place, or it might be to provide a more integrative forum in which the activities of other institutions (eg for fishing, marine protection, catchment impacts, biosecurity) can be aligned and coordinated. Such arrangements might be particularly useful in biogeographical regions that are the focus of marine spatial plans. For example, some have bemoaned the poor implementation of the plan agreed as part of the non-statutory Seachange Tai Timu Tai Pari initiative in the Hauraki Gulf, and in a future system (if marine spatial planning was rolled out across the country) guardians could be established to monitor and oversee progress after the actual planning process has been completed.

A spotlight on local marine management legislation

Local marine management area legislation has taken the form of the Hauraki Gulf Marine Park Act, then the Fiordland (Te Moana o Atawhenua) Marine Management Act and, most recently, the Kaikōura (Te Tai o Marokura) Marine Management Act. These cross-agency local area pieces of legislation establish iwi, sector and community representation groups (ie the Hauraki Gulf Forum, the Guardians of Fiordland and the Kaikōura Marine Guardians respectively). As earlier indicated, the latter two create a direct conduit of information from local communities to the Ministers of Fisheries and Conservation.

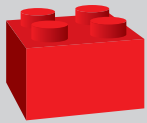
This approach is arguably cheaper and more locally representative than running individual sector liaison groups (eg for fisheries management). However, such groups run the risk of becoming disconnected from their community base over time. A mandatory review of their structure and inclusiveness can therefore be helpful. One example is the cross-agency review of inclusiveness, community representation, process, and structure of the Kaikōura Marine Guardians.⁷⁰



Motuora Island, Hauraki Gulf

Raewyn Peart

That said, the point of spatially targeted institutions is not necessarily to represent those living or operating in an area or community. It might be to recognise and defend the unique values of a place from a national or even international perspective (eg Fiordland and surroundings form a world heritage area),⁷¹ even where it conflicts with local priorities (eg for economic development). It is more about giving a laser sharp focus to management in a particular place. One interesting possibility is to confer legal personhood and rights, not on the moana as a whole, but on particular places warranting special management (eg Rangitāhua/the Kermadec Islands). Here, the purpose might not be about people's interests at all, irrespective of whether they form a nation, a local community, or a sector. Instead, a geographical area is conceived of as having its *own* interests, and therefore warranting its own institutional champion.



Place-based institutional arrangements could be rolled out more broadly across the moana, reflecting existing guardian and advocacy roles performed in Kaikōura, Fiordland and the Hauraki Gulf. For example, every new MPA could have its own guardian.

The role of regional councils in the marine space raises questions, not only about devolution (whether central government should take over), but also about councils' geographical focus. In particular: should the boundaries *between* regional councils be shifted so they are set as much on the ecological dynamics and characteristics of the moana as they are on catchment boundaries?



Deep Cove, Doubtful Sound

A spotlight on inter-regional boundaries

For management under the RMA, the territorial sea has been divided up into regional council management areas, usually based on a simple extension of the land-based council boundaries out to the 12-nautical-mile limit. Such boundaries are typically based on water catchments and fail to reflect the biophysical realities of the sea. This has resulted in some notable anomalies where the Kaipara Harbour is divided between two regional councils (Northland and Auckland) as is the Hauraki Gulf (Auckland and Waikato). Horizons Regional Council manages only a small sliver of the south-east coast of the North Island. Where smaller unitary councils have been established, the fragmentation has been even greater. In Tasman Bay, Nelson City Council manages a narrow strip through the middle of the bay, with Marlborough District Council managing the eastern side and Tasman District Council the western side. These arrangements contrast starkly with those for the EEZ and extended continental shelf, which are managed by the EPA as one enormous, undelineated spatial unit under the EEZ Act.

This fragmentation of jurisdiction over the coastal marine area has had very tangible consequences, which can be seen in the particular difficulties (and, recently, effort) in the Hauraki Gulf where many different institutions need to cooperate to fix issues in the Gulf. Part of that is because of regionally defined boundaries.

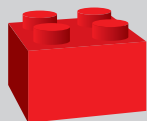
To help address this, one option would be for council boundaries to be redrawn, taking into account both catchment and marine ecological features (and potentially also informed by *mana whenua* boundaries and the evolving rollout of customary marine title areas under the MACA Act). Such an exercise could be informed by previous efforts to spatially divide the coast up into ecological units based on biophysical characteristics. For example, in the territorial sea, 14 biogeographic regions have been identified based on visible ecological patterns and physical characteristics. Nine of these surround the mainland coast and five cover different offshore island areas.⁷² These regions do not currently coincide with jurisdictional or management boundaries, but they have been used by the Department of Conservation as a basis for identifying MPAs.⁷³

In a future system, such biogeographical regions could be used to better align catchment and marine boundaries. Indeed, council boundaries are an open question at the moment with the

government's review of local government, and expanding them may be consistent with a drive towards fewer councils. Better aligning council jurisdictions with marine ecosystems might be particularly important if regions are to take on more marine functions as discussed above. It would also be helpful if regional council boundaries aligned with the boundaries of marine spatial planning exercises, which was not the case in the Hauraki Gulf.

It may be impractical to entirely align council boundaries with marine systems. One can foresee a reluctance, for example, to revisit the "regionalisation" of the Auckland super city along fundamentally different lines. The driver at the moment (eg under the proposed NBA) seems to be more towards regionalisation of local government based on current regional boundaries, rather than redrawing those boundaries or integrating multiple regions. However, the Randerson Panel's mandate did not include considering local government reform. There is also the relationship between regional councils and territorial authorities to consider. If local communities of interest do not fit neatly within regions defined by ecological factors, that could complicate integrated planning on land (eg through combined planning committees) envisaged under the NBA.

Another option would be to have a separate, marine focused layer of local government ("maritime councils") whose boundaries would be defined by marine ecology, not catchments or communities of interest. Existing inter-regional boundaries would remain intact, with the marine jurisdiction carved off to separate entities. However, that would lose the valuable integration between catchments and coast currently existing within a single regional institution, and would beg the question: why not just create an Oceans Agency to do the same thing and get rid of inter-regional boundaries altogether?⁷⁴ After all, it is not clear that there is a stronger regional than national community of interest when it comes to the health of large scale marine ecosystems, calling into question why maritime councils would be elected by regional constituents at all.



Inter-regional boundaries could be shifted so that they better reflect the ecological characteristics of the sea. Alternatively, a separate layer of maritime councils could be established with jurisdiction over biophysically defined parts of the moana.

The "geographical" focus of marine institutions is closely related to their "subject" focus. This is because a focus on a single defined space – the marine area – can often be an alternative to focusing on a "subject" that spans land and sea. We can split institutions along quite different lines here depending on where the stronger connections are. For example, Biosecurity New Zealand is focused on the cross-cutting topic of biosecurity that spans land and sea, not just *marine* biosecurity. In a future system, institutions could be reconfigured to focus more on oceans as a space (integrating all or most marine management topics into a single institution) rather than focusing on topics that span land and sea.

This institutional focus on the moana could be achieved in different ways. For example, the marine focused parts of the Department of Conservation, the EPA, and Biosecurity New Zealand could be merged with Fisheries New Zealand and Maritime New Zealand to form a single Oceans Agency.⁷⁵ This could be complemented by transferring the marine jurisdiction of regional councils as well, creating a jurisdictional boundary at mean high water springs. Here, one set of institutions would manage the land, and another would manage the sea.

Such an agency could bring together a critical mass of expertise related to marine management and make it easier to make links between related areas and tools (eg fishing, MPAs, species enhancement, coastal occupation and so forth). It would provide a much clearer champion for marine spatial planning, and a more direct line of sight between the creation of a spatial plan and its implementation (the same institution would do both). An integrated agency could even be an alternative to the creation of an Oceans Act, as it could coordinate its activities across fragmented frameworks like the Fisheries Act, conservation legislation, the Maritime Transport Act, the Biosecurity Act, the RMA and the EEZ Act (as the Department of Conservation has done across multiple pieces of conservation law). An agency focused on the oceans as a space could also provide a more powerful and focused voice in other decision-making fora, such as catchment management, land use, climate change and waste regulation.

However, there are compelling reasons for regional councils to retain some role in marine management, especially in inshore environments. This is because what happens on land (and in water catchments draining into the sea, in particular) impacts on estuaries and inshore coastal environments, including via sedimentation, nutrient runoff, contaminated stormwater flows and point source pollution (such as from wastewater outfalls).⁷⁶ Regional councils should be well placed to manage this land-sea interface and can deploy regional level strategy (eg regional policy

statements, which have as their purpose to provide “an overview of the resource management issues of the region and policies and methods to achieve integrated management of the natural and physical resources of the whole region”).⁷⁷ Ideally, management targets and objectives set by councils for the marine area (especially estuaries) could drive management effort and regulatory controls further up the catchment (eg for agriculture, forestry and earthworks). It is questionable whether a marine-focused agency could achieve that as effectively. For example, the Parliamentary Commissioner for the Environment has suggested that estuaries make more sense as freshwater management units under the NPS on Freshwater Management (a land-based instrument), and are not something to be dealt with in the NZCPS.⁷⁸

Integrated management across the land-sea interface is also important when it comes to sea level rise, coastal hazards and urban design. Regional councils have oversight of land use across a region, and can address urban growth and design through a regional policy statement. How cities expand, and the activities that are authorised near the coast (eg industry, roads, infrastructure, reserves and nature areas), can have significant impacts on the moana. In short, it makes a great deal of sense for regional councils, responsible for and aligned according to freshwater catchments and with oversight of land use, to manage the coastal environment (ie the area of sea influenced by land) too. The caveat is that they need to have the funding and capacity to do so.

There are also good reasons for other institutions to be focused on cross-cutting subject areas rather than on the marine space. Climate change is a good example, where emissions need to be managed in an integrated way irrespective of the place where they are generated, and where subject focused institutions like the Climate Change Commission are needed. We would not have a *Marine* Climate Change Commission. In a practical sense, it may also be risky for an entity like Biosecurity New Zealand to be split between land and sea, especially if land and marine entities had to coordinate responsibilities under a single Biosecurity Act (eg overlapping jurisdiction over cargo ship inspections).⁷⁹ And even if that Act itself were to be split (eg its marine components placed in an Oceans Act), there still might be value in having a single *entity* responsible for delivering this particularly important type of outcome that has its own targeted toolkit.⁸⁰ Indeed, it is telling that international shipping standards (eg concerning ballast water and biofouling) have been translated, not through Maritime New Zealand’s Maritime Transport Act framework alongside other shipping standards, but rather through the Ministry for Primary Industry’s Biosecurity Act framework.⁸¹ That reflects where the concentration of expertise lies.

On the other hand, the integration of marine biosecurity with other marine matters within a geographically focused Oceans Agency could provide opportunities. For example, it might help in locating compatible activities together (and incompatible ones apart) when it comes to marine spatial planning (eg the location of ports, different aquaculture operations, recreational fishing areas, shipping lanes, and areas vulnerable to incursion due to climate-induced changes in species makeup). That would still be possible with multiple agencies working together at a strategic level, but it might be more effective if the powers to do something about it (especially to regulate and fund) were also located in a single entity. There would also be fewer points of engagement for the public to navigate.

Moreover, there may be benefits in integrating responsibility for marine biosecurity and other marine matters like shipping and aquaculture. The main way that invasive marine organisms enter New Zealand is attached to the hulls of vessels entering the country (or other equipment like oil rigs) or through their exchange of ballast water. Species are most commonly spread through the movement of vessels around the coast (both commercial and recreational) and the translocation of equipment and live marine organisms in the aquaculture industry. Surveillance is focused on the main ports and marinas around the coast. Marine biosecurity is thus arguably more closely related to shipping than other elements of biosecurity (which are more focused on air and shipborne cargo as entry points). Indeed, this is reflected in the current degree of structural separation between land focused biosecurity instruments and marine focused ones.

Institutional boundaries can be drawn so that they focus on subjects or topics that span land and sea (eg biosecurity, climate change and catchment pollution). This is noticeable in the current system. In the future, institutions could focus on different geographical spaces: some for land, some for sea. There would be benefits in having an integrated Oceans Agency focused on the latter, but also downsides given the complexity of the land-sea interface.



Future institutions could focus on different geographical spaces: some for land and some for the sea, with an integrated Oceans Agency focused on the latter.

Sharp jurisdictional boundaries between some institutions (eg drawing a line at mean high water springs) can in practice be softened by layering other institutions on top. This can be seen in the example of the Californian Coastal Commission. In Aotearoa New Zealand, an Oceans Agency's jurisdiction could end at the high tide mark where council jurisdiction could begin, but a Coastal Commission could have roles across both areas. Alternatively, an Oceans Agency itself could perform this role by ensuring that terrestrial plans and regulations complied with the requirements of marine legislation. For example, it could be given powers to amend a district or regional plan if it would fail to protect a MPA (eg due to sediment impacts) or have impacts on fish stocks or estuarine habitats.

Raewyn Peart



Muriwai Beach, Auckland

A spotlight on the California Coastal Commission

The California Coastal Commission, established in 1972 and operating under the California Coastal Act 1976, provides an interesting model of a dedicated agency that focuses on complex environmental challenges in a particular spatial area – the coastal zone. This includes land up to several kilometres inland and the coastal marine area out to three nautical miles (which is the extent of the state government marine jurisdiction). The Commission has 12 voting members, six of whom are locally elected officials and six of whom are appointed by the state government from the public at large. Three ex officio (non-voting) members represent state government agencies, serving to link the work of the Commission with other government initiatives.

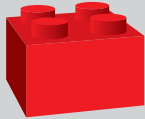
The Commission works with local government to assist with their long-range planning and to confirm that their plans conform with the Coastal Act and other state government requirements. Once a local plan (similar to a district plan under the RMA) is approved, local councils are authorised to approve coastal development permits. The Commission retains appeal authority over some significant local council decisions, and directly makes decisions over development applications within the coastal marine area and on public trust land.

The Commission is small – with a budget of around US\$20 million a year and just 145 employees. It is able to make decisions that are locally unpopular but are in the broader public interest. It provides a useful model for how an additional oversight layer can be provided over planning and consenting in sensitive areas under high development pressure, and how (in its focus on the coastal zone) institutional design can help integrate land and sea while retaining clear jurisdictional responsibilities.

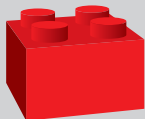
A range of other institutions could focus on the oceans as a space. For example, an Oceans Commission might perform a watchdog role similar to the Climate Change Commission (eg providing advice and evaluating performance of government), and focusing on the health of the whole marine space rather than individual siloes within it (eg fishing or species conservation). While this could be nested within an expanded Parliamentary Commissioner for the Environment or broader “Futures Commission”, a standalone entity would provide a dedicated focus on the moana that could hold fragmented agencies like councils, Fisheries New

Zealand, Maritime New Zealand and the Department of Conservation (if these were to remain separate) to account. An alternative mechanism might be to have a “Chief Oceans Advisor” similar to the position occupied by the Prime Minister’s Chief Science Advisor.

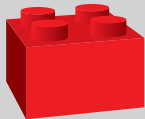
If a sharp boundary were drawn between marine and land focused institutions at mean high water springs, it could be softened by adding an additional institutional layer like a Coastal Commission. This may have other benefits too, including providing a hybrid governance model that could integrate central, regional and mana whenua representation in the coastal zone. Another option would be for an Oceans Agency to have additional jurisdiction to influence land-based decision-making, such as catchment pollution and coastal land uses.



An institutional overlay, in the form of a Coastal Commission, could be established to integrate management of land and the sea if a sharp division was created between land management (by councils) and marine management (by an Oceans Agency or similar).



An Oceans Agency could be given an integrating role by ensuring that terrestrial plans and regulations complied with the requirements of marine legislation.



An independent Oceans Commission could perform a watchdog function over all government responsibilities at sea, but it could equally be incorporated into an entity like a Futures Commission applying to the whole of Aotearoa New Zealand.

A finely balanced question of institutional design is whether the Department of Conservation should be split up, with its operational marine functions incorporated into an Oceans Agency. This mirrors the similar trade-offs discussed in the context of legislative design (whether conservation legislation should be integrated into an Oceans Act or remain

separate). Splitting off the marine functions of the Department could have some benefits, in that conservation concerns could be integrated into other facets of marine decision-making. It could, for example, ensure that protected areas were high in the minds of those thinking about the future of fishing and aquaculture, and that the impacts of all activities on marine mammals translated to action through the whole toolkit (from bycatch restrictions to sanctuaries to population management plans). As one interviewee has warned in the conservation context, “there needs to be more multi-agency collaboration to avoid iwi having to talk to 22 different agencies” as they progress different processes and deploy different tools.⁸² Fragmentation of marine agencies across conservation, shipping, pollution control, fishing and so forth can jar with the more holistic approach embedded in te ao Māori.

On the other hand, marine conservation efforts often rely on management of highly mobile species and their habitats. Many of these do not just live in the ocean; birds and diadromous fish, in particular, can be highly migratory, spanning land, sea and freshwater. An Oceans Agency separate from a conservation focused agency on land, could undermine one of the key outcomes sought by the system (integrated management of protected species). A similar problem would arise if the Department of Conservation’s role was split and a *marine* Conservation Authority established.

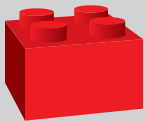
Whether marine agencies (an Oceans Agency or something else) or the Department of Conservation should be responsible for establishing and maintaining MPAs is not so obvious. That may depend on their purpose and the extent to which they need to link to other species-based protections (eg species’ feeding or nursery grounds at sea and on land) and land-based protected areas (eg coastal reserves).

It may also be difficult to reconcile the quite different cultures and mandates of conservation-focused and utilisation-focused institutions. The mandate of an Oceans Agency (and, if there were separation between them, an Oceans Ministry)⁸³ could be so broad as to mean all things to all people. There is the risk that, in practice, it could be dominated by one set of concerns over others based on leadership appointments. An alternative solution would be to retain separate institutions and focus on how they work together. Different entities with defined mandates can, for example, physically co-locate (eg in regional hubs). And they can come together in formalised groupings to provide more integrated advice and share ideas and resources.

One way to achieve this would be to give a formal statutory basis to the recently established Oceans Secretariat, which is comprised of multiple

agencies concerned with the marine environment. Presently, this could be disestablished at the whim of a Minister. Were it to be formalised, membership of the secretariat could even be extended to representatives from regional government and mana whenua.

As with the boundary between marine legislation and conservation legislation, it is not clear whether the Department of Conservation's marine functions should be incorporated into institutions focused on integrated management of the marine space (eg an Oceans Agency). While there may be benefits, there would also be considerable downsides. The Department could, however, work closely with other marine institutions, with such relationships formalised through giving a statutory basis to the Oceans Secretariat.



The Oceans Secretariat could be given formal statutory basis and its membership extended to representatives from regional government and mana whenua.

The subject focus of institutions is not just about whether they should focus on things that cross the land-sea divide. Even *within* the marine space, institutions can be targeted at the management of more specific subjects. For example, Fisheries New Zealand⁸⁴ and Maritime New Zealand

are focused on separate *sectors* within the marine environment. Whether that is desirable is debatable.

On the one hand, they have reasonably clear missions reflecting the quite different purposes of the legislation under which they operate. They can serve as a critical mass of expertise for management subjects that are highly technical. And sector-focused institutions can form good working relationships and build trust with the particular industries that they regulate. Excessive integration can lead to a lack of focus. People can get lost in a mega-ministry concerned with everything and everyone. Objective overload can lead to short-term prioritisation (seeking the “easy wins” rather than tackling the hard stuff), generalised policy-speak that seeks to balance objectives, and focusing on strategies rather than pointed action.

A spotlight on the International Maritime Organization and Maritime New Zealand

The International Maritime Organization was established in 1948⁸⁵ as a specialised agency of the United Nations. Its objectives include *inter alia* the creation of regulations for international shipping, maritime safety, the efficiency of navigation, the prevention and control of marine pollution from ships, and the consideration of a range of shipping matters including the effects of shipping on the marine environment.⁸⁶ It has adopted a wide range of measures to prevent and control pollution caused by ships and to mitigate the effects of any damage that may occur as a result of maritime operations and accidents. The Marine Environment Protection Committee is its senior technical body on marine pollution related matters.

Essentially, the International Maritime Organization is an international institution designed to regulate a particular sector in a highly detailed way (compared to many other aspects of international law). Institutional arrangements in Aotearoa New Zealand to some extent reflect the fact that it is much simpler to have a comparably focused institution – Maritime New Zealand – concerned with all (or at least most) aspects of shipping, and which can translate international standards and requirements into a domestic context. In other words, a sectoral lens makes some sense, even though it creates something of an artificial and overlapping boundary with the environmental jurisdiction of the EPA and regional councils when it comes to vessels at sea.

Reewyn Peart



Moeraki

On the other hand, separation between sectoral agencies and those concerned with broader things can create issues. For example, the *Motiti* litigation demonstrates the unclear relationship between the broad role of regional councils in biodiversity protection and the narrower sectoral role of Fisheries New Zealand in fisheries management. No one quite knows what the other is meant to be doing. Similarly, the case of the Bryde's whale (see Chapter 11) shows the risks of multiple institutions (including councils and Maritime New Zealand) using (or failing to use) different tools at their disposal.

Such things might be less inclined to fall between the cracks if marine focused institutions were themselves integrated, creating clearer lines of accountability and a whole of system marine "steward". As one commentator has said, we need a "lead agency responsibility to coordinate all efforts in this space, including providing clarity around the roles of local and central government, Treaty partners and kaitiaki in fisheries and biodiversity management".⁸⁷ An integrated Oceans Ministry or Oceans Agency might be well positioned to perform that role. In particular, it is important that a holistic, or ecosystem, view be taken of marine environmental limits, which relate to a fluid environment that does not reflect management silos.

Conversely, a lack of sectoral focus can have negative consequences. For example, there is no institutional framework specifically for marine tourism in Aotearoa New Zealand. Tourism is managed by a raft of different bodies (at the central level): the tourism policy unit in the Ministry of Business, Innovation and Employment, Tourism New Zealand, New Zealand Māori Tourism and the Department of Conservation. Regional Tourism Organisations also operate around the country. The Tourism Strategy indicates that the government wants to improve coordination, sustainability and planning in the tourism system. A lack of data and information is recognised. Fragmentation does not help management of a sector where, in contrast to a direct action like fishing or mining, human actions ("tourism") are harder to define and regulate.

An Oceans Agency could arguably help here, by making institutional responsibilities clearer and making strategic links between the purposes of tourism and conservation (eg MPAs, marine mammals), fishing (eg charter fishing expeditions) and pollution (eg the impacts of cruise ships). It could also highlight areas where gaps need to be filled. For example, no agency is responsible for how tourist numbers move around different parts of the country, putting pressure on those who have to address their adverse impacts (eg by funding infrastructure to prevent pollution of the marine environment through litter and human waste). Border closures due to

Covid-19 have seen some wondering whether it is time for a more holistic reset of international tourism, and whether a more proactive approach to management is required (including whether large cruise ships should be allowed in some places, or allowed at all). Such things depend on the system's objectives.

However, subsuming sectoral concerns within a broader marine agency could also cause something like tourism to fall between the cracks when "big ticket" items like MPAs and fishing are front of mind. There is also a need for tourism to be managed across land and sea. After all, tourists are never just *marine* visitors.

There can be benefits in institutions focused on particular sectors. However, a sectoral focus needs to be nested within a broader institutional framework looking at ecosystems in the round. The oceans management system needs a clear overall steward.

12.7 Tasks

Institutions can be tasked with taking different kinds of action. These "tasks" should not be confused with the "roles" the system performs as described in Chapters 6 and 7. In performing any given role, such as setting environmental limits, an institution can be charged with one or more tasks (eg policy, regulation and enforcement). While other tasks might be possible, core ones might include the following.

- Developing policy and providing advice (eg Department of Conservation advising the Minister of Conservation and developing an MPA strategy)
- Creating regulation (eg the Minister for the Environment creating an NES)
- Enforcing regulation (eg regional councils issuing an abatement notice for breaching the conditions of a coastal permit)
- Undertaking operational tasks (eg the Department of Conservation managing a marine reserve, or undertaking research)
- Funding (eg Fisheries New Zealand commissioning research on a fish stock and the Department of Conservation funding community groups)

- Advocacy and education (eg the Department of Conservation participating in Environment Court proceedings under the RMA, or the Ministry for Primary Industries advocating for primary producers in international fora)
- Dispute resolution (eg the Environment Court resolving an appeal on a plan or consent).
- Providing administrative support (eg the EPA supporting boards of inquiry under the RMA).

These are fairly discrete categories, but often institutions can be expected to perform more than one task. In other cases, there can be a conscious separation of tasks across different entities. The key question is the extent to which multiple tasks should be the responsibility of a single institution, or distributed across more than one.

The characteristics of existing marine institutions are interesting when looked at through this lens. Sometimes, there is no clear separation between tasks while in others it is quite deliberate. For example, the Ministry for the Environment is largely a policy shop. It advises the Minister and develops marine policy and high level regulation, as well as funding various initiatives. It does not manage the marine space directly (it does not set rules in regional plans), nor does it undertake enforcement action. The same is true of the Ministry of Transport. Operational, enforcement and dispute resolution tasks are instead undertaken by councils, the EPA (and related boards of inquiry and courts) and Maritime New Zealand.

In contrast, the Department of Conservation, Fisheries New Zealand and Biosecurity New Zealand have much stronger operational and enforcement roles alongside policy, funding and regulatory roles. They are much more than policy shops. The Environment Court is also an interesting case; it has a dispute resolution and enforcement task, but it is quite unique within the judiciary in that (effectively) it also has policy and regulatory tasks when making substantive decisions on regional coastal plans and coastal permits.⁸⁸

As we pointed out in previous work:⁸⁹

There are advantages in integrating multiple tasks within a single institution, especially aspects that can be considered part of a single policy or development cycle. Thus, it is desirable that the creation of policy (eg objectives and policies in a regional plan) closely informs what regulatory instruments look like (eg planning rules and standards and consenting conditions), which in turn are closely connected to

their enforcement. Having the relevant people sitting within the same offices can be helpful to make links and clarify intentions. ... Funding powers also need to be closely linked to operational decision-making (eg there is no point planning [something] unless it can be paid for).

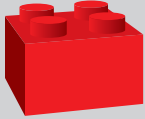
The separation between key policy and regulatory tasks under the RMA (central government creation of relatively vague policies in NPSs, and reliance on local government implementation through rules in plans) has caused some difficulties, such as the disjunct between sedimentation policies in the NZCPS and rules controlling land use in regional and district plans. While this may be partly a product of other institutional features (eg the politicisation of planning under elected regional councils), it has not been helped by central government being standoffish when it comes to overseeing implementation of national direction (eg failing to audit rules to ensure they give effect to policies, or create national level regulations). That is changing now in the freshwater context, and resource management reform may be a driver for a more systemic involvement of central government in the nitty gritty of RMA/NBA plans.⁹⁰

The separation of strategic and funding tasks can also be problematic in the marine environment. This can be seen in the Hauraki Gulf, where a collaborative group charged with creating a strategic spatial plan for the Gulf had no direct ability to fund (or regulate) to bring it into existence. Many operational actions require considerable resourcing (eg planting and restoration), but have to go through a variety of siloed agency processes in order to obtain it.

However, there are also advantages (and sometimes necessities) in separating tasks. For example, it is often desirable to separate operational responsibilities (eg building navigation infrastructure) from regulatory ones (addressing its environmental impacts) and enforcement ones (taking action if regulations are breached).⁹¹ As such, there are trends towards the use of independent commissioners for consenting decisions within councils (to depoliticise project-specific decisions),⁹² and the use of good practice guidelines in depoliticising enforcement decisions (ie delegating to expert staff).

Institutions can undertake a wide variety of tasks. These include policy, regulation, enforcement, funding, advocacy, operational tasks and administrative support. The key design question is the extent to which multiple tasks should be the responsibility of a single institution, or be distributed across more than one.

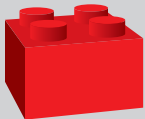
There is a rich conversation to be had here when it comes to options for a future system. Key options might include the following.



The “policy shop” advisory functions of ministries could be separated from their regulatory tasks.

For example, Ministers could be responsible for setting policy under the RMA/NBA (eg through the NZCPS or marine part of a national planning framework) but leave regulation-making to an expanded EPA or Oceans Agency. Similarly, Fisheries New Zealand could retain a policy advisory role to the Minister of Oceans and Fisheries (who would create fisheries strategies and plans), but devolve regulatory decision-making on sustainability measures (including catch limits) to an arm’s length Oceans Agency on the basis that they involve implementing values rather than determining them. Alternatively, regulatory roles could be shared with the judiciary (eg by enabling appeal rights for national direction and under the Fisheries Act).

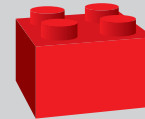
If we were to establish an Oceans Agency, this could itself be a policy shop, advising Ministers. In that case, one might call it an Oceans Department. Alternatively, its focus on regulatory, operational and enforcement tasks could be complemented by a separate policy-focused Oceans Ministry.



Regulatory tasks could be more clearly separated from enforcement tasks.

This could be done informally by creating divisions within institutions (expert enforcement branches). However, a more formal distinction could be made by moving the enforcement roles currently undertaken by regional councils and/or Fisheries New Zealand to a strengthened EPA. For councils, that might formalise best practice by removing enforcement decisions from political interference and concentrating expertise in compliance matters. It would also mean that potentially expanded central government direction (in the form of new NESs or mandatory environmental limits) would be enforced at a national level. However, it would create a greater separation between the enforcement task and plan making and consenting (which set the rules that need to be enforced), as well as between the enforcement agency and the regulated community.

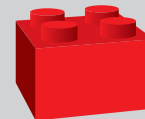
For other specialist and central agencies like Fisheries New Zealand, Maritime New Zealand and the Department of Conservation, it could dilute expertise (fisheries enforcement is by no means the same as other scenarios) and risk undue separation from expert operational functions (eg the Department of Conservation and Maritime New Zealand have experience and resources in the marine space, including practical things like vessels). Internal institutional divisions (or an escalation pathway whereby some enforcement matters are taken up or supported by the EPA) may be as effective.



Policy and regulatory tasks could be more clearly separated from advocacy.

This could involve an additional *layer* of institution (eg an Environmental Defender’s Office, with a dedicated branch for the marine environment, charged with taking legal action; or a broader public messaging and education role for an independent Oceans Commission, similar to the Energy Efficiency and Conservation Authority). Alternatively, it could involve the transfer of advocacy responsibility from existing institutions. For example, the Department of Conservation could retain its policy role but not be expected to engage in litigation (which would be the sole function of an Environmental Defenders Office with a secure funding stream). This could prevent peaks and troughs in departmental funding from affecting legal advocacy for nature, or political interference (in that the Conservation Act specifies clearly that the Department of Conservation “shall be under the control of the Minister”).

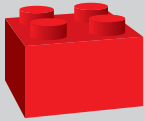
The advocacy function of the Ministry for Primary Industries in some contexts (eg trade negotiations, biosecurity, primary productivity) could be separated from its regulatory role in others (eg protecting the marine environment from fishing impacts).



Some funding responsibilities could be separated from other tasks.

For example, a dedicated national-level agency for funding marine environmental research could be established, to complement (and coordinate) the more focused funding roles of various ministries and departments. To some extent this could separate research funding decisions from policy and advocacy tasks.

In other contexts, the funding powers of an institution could be more closely linked to its policy responsibilities (as in the Sea Change Tai Timu Tai Pari context referred to earlier).



New institutions could be created, or existing ones reimagined, to perform innovative tasks.

For example, a new Crown entity, state owned enterprise or council controlled organisation could be charged with building a network of marine ecological infrastructure. This would shift an “operational” task from one of environmental enhancement and restoration (often seen as a nice to have) to one in which there is a business case and model for the efficient delivery of public goods (ecological services, that have a measurable monetary or social value).

Such an entity could be relatively independent (reflecting the common use of council controlled organisations and state owned entities for

infrastructure delivery, and the historical issues with leaving core services like water to politically determined funding)⁹³ and have powers to impose charges on “users” commensurate to the services provided. A narrow focus may, like Transpower or the New Zealand Transport Agency, encourage this institution to focus on its core business. And if ecological structures (eg reefs, shellfish beds or kelp forests) were treated as infrastructure, this might shift the debate from one of “environment” and “development” to one more akin to the protection of vital network infrastructure (eg power lines or undersea pipelines) from incompatible activities (eg trawling or mining). If we can justify expenditure on a national electricity grid, telecommunication cables and reticulated water supplies, why not the restoration of environmental goods that are, in the long-term, even more important for sustaining life?

A number of options could be pursued by integrating or separating various tasks across institutions.

Raewyn Peart



Kelp forest, Cavalli Islands

12.8 Mandate

Institutions can have very different mandates. What these are will be influenced by the broader objectives we have for the system (see Chapter 7). But the oceans management system is not just about protecting resources, nor just about using them. It needs to provide for both (although preferably in a synergistic manner). So how should we arrange our institutions to do so? A key question is whether we should organise institutions so that they have distinct, or combined, mandates.

On the one hand, marine resources need to be managed in an integrated way. Combining protective and utilisation or development mandates within a single entity can promote that. For example, a single institution like Fisheries New Zealand, which is focused on fisheries management can be well placed to understand the complex interactions between habitat protection and sustainable yield, and to achieve synergies between them. By the same token, separate and conflicting mandates can produce conflict, fragmentation, misalignment and confusion. That has arguably been the case in the fisheries context, where the mandate of regional councils still remains unclear to some extent, and where the respective roles of Fisheries New Zealand and the Department of Conservation in progressing spatial protections has arguably contributed to stalemate. A more integrated institutional landscape, such as an Oceans Agency or Oceans Ministry, could assist.

However, on the other hand, there are risks in combining quite different mandates within an institution. This can produce objective overload and a race to a meaningless policy middle – where neither mandate is fulfilled properly. As the Productivity Commission has noted, “a clear mandate can help promote accountability, compliance, focus, legitimacy and predictability.”⁹⁴ More dangerously, combining conflicting mandates or sweeping tensions under a vague direction may in practice see a non-transparent prioritisation of policy goals within the back rooms of an institution. After all, synergies are not always possible, and tough choices need to be made. They should be done in the open, not by invisible lobbying. There is also benefit in Ministers receiving conflicting streams of advice from institutions with different perspectives. That way, policy choices are made clear. Some commentators have warned that excessive integration can lead to a lack of focus, transparency and trust.

Integrating quite different mandates is arguably a risk even within current institutional arrangements. For example, there can be conflicts within the Department of Conservation between conservation and use/tourism (despite a statutory hierarchy, it is not always clear where the line is to be

drawn).⁹⁵ And the mandate of regional councils in the marine environment is largely driven by the purpose of the RMA,⁹⁶ which is filled with conflicting policy provisions and leaves significant room for political prioritisation.⁹⁷ This has led to calls for the EPA to be expanded, to take on some of the regulatory functions of regional councils, under a clearer statutory mandate than it or councils currently have. A future system could therefore include institutions with intentionally conflicting mandates – constructive tensions – but clarify how those are intended to work together.

Institutions can have very different mandates when managing marine resources, from protective to exploitative. Integrating mandates within an institution can promote synergies and integrated management. However, there are risks in combining quite different mandates within an institution, notably that one may get weakened in practice.

Sometimes it can be unclear what the mandate of an institution actually is, especially if it does not have a formal statutory basis. There could be value in revisiting or defining clearer statutory mandates for existing institutions when it comes to the marine environment, such as the Ministry for Primary Industries (and its various business units), regional councils (eg with respect to MPAs) and the Ministry for the Environment. Maritime New Zealand is also a creature of statute but, despite quite specific functions, it has a relatively neutral mandate in a normative sense.⁹⁸ Should it be given a stronger and more specific mandate to protect the marine environment in its decision-making above and beyond what international law requires? For example, should legislation give it a mission to decarbonise the shipping industry and provide incentives for improved environmental design and



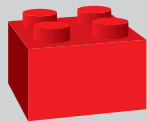
Ferry, Rangitoto Island

Raewyn Peart

methods? The EPA could also be given a stronger mandate in the marine environment. This may be particularly desirable if it were to embrace its full potential as an environmental regulator. And to the extent we create new institutions (eg an Oceans Commission, Oceans Agency, Environmental Defenders Office, or Oceans Ministry) careful thought would need to be given to their statutory mandate.

A spotlight on the Victoria Environmental Protection Authority

The Victorian (Australia) EPA began operating in 1971 under the Environment Protection Act 1970. More recently, legislative change established the objective of the EPA as being “to protect human health and the environment by reducing the harmful effects of pollution and waste.”⁹⁹ This can be contrasted with the current objective of the New Zealand EPA which is much vaguer: to undertake its functions in a way that “contributes to the efficient, effective, and transparent management of New Zealand’s environment and natural and physical resources; and enables New Zealand to meet its international obligations.”¹⁰⁰ The Victorian model demonstrates the success of an EPA which has a clear purpose and tight focus on dealing with serious environmental risks. It is generally regarded as the most successful EPA in Australia.

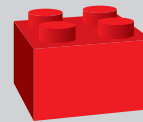


Existing institutions could be given stronger or more specific mandates than at present. These could be more directive (ie to take particular forms of action), to reflect a more outcomes-based management system.

The mandate of mana whenua is also an interesting thing to consider. The formal system intersects with tikanga, rather than integrating or seeking to change it. It would be inappropriate for iwi and hapū to have statutory mandates themselves, just as it may be beyond the pale to give the “Crown” a specific mandate outside specific statutory contexts.¹⁰¹ However, if mana whenua are to exercise significant powers in a future system, should they be directed to exercise them in the pursuit of particular goals? On the one hand, that may be overly paternalistic. But on the other, it may reflect the public interest in knowing what public authorities – including iwi and hapū – are trying to achieve. For example, legislation could potentially require that any revenue directed

to mana whenua from marine resource rentals be ringfenced for use in environmental enhancement or a kaitiaki role.¹⁰²

If mana whenua were to take on significant public powers in a future system, alongside other agencies, it raises questions about the extent to which Māori decision-makers should have statutory mandates to exercise them in particular ways. One option would be to include those in legislation. However, to do so may clash with tikanga and expectations under te Tiriti o Waitangi.



Mana whenua could be given statutory mandates when exercising significant public powers in a future system.

12.9 Formality of creation

Institutions can be created in different ways, on a spectrum from formal to informal. Their features and the way they operate can also be formally prescribed, or informally sketched out. The most formal way for an institution to be created is through targeted primary legislation.



Broad Bay, Otago Peninsula

Raewyn Peart

For example, the Ministry for the Environment, the Department of Conservation, the Parliamentary Commissioner for the Environment, the EPA and Maritime New Zealand are established by statute.

Other institutions have been created in less formal ways. For example, most government departments and ministries do not owe their existence to legislation (although legislation can specifically recognise their existence when assigning roles).¹⁰³ Sometimes legislation simply creates the ability to establish a particular kind of institution (and sets out how it must subsequently operate) rather than creating it directly. For example, the Minister of Fisheries can choose to establish a National Fisheries Advisory Council¹⁰⁴ and the Minister for the Environment can appoint boards of inquiry under the RMA.¹⁰⁵

A spotlight on our fisheries management agency

Frequent changes to Aotearoa New Zealand's fisheries management agency over the years highlight the problems which can occur when an institution has no statutory basis. Up until 1972, fisheries were managed by the Marine Department. The role was then passed onto the Ministry of Agriculture and Fisheries. In 1995, a Ministry of Fisheries was established to provide a strong sectoral focus. But in 2011 the Ministry was disestablished and fisheries management was absorbed into the Ministry of Agriculture and Forestry. In 2012, this whole ministry (including fisheries management) was absorbed into an even larger primary sector institution, the Ministry for Primary Industries. In 2018, Fisheries New Zealand was established as a business unit within the Ministry for Primary Industries, in order (once again) to provide a stronger sectoral focus on fisheries management. This regular institutional reshuffling resulted in uncertainty, high staff turnover and loss of institutional knowledge.¹⁰⁶ It might have been avoided, had our fisheries management agency had a clearer statutory basis.

As we have said previously:¹⁰⁷

there are two ... pressing rationales for enshrining an institution in legislation. First is where its specific position and durability in the system is important to achieve our long-term objectives. Second is where it is likely to require protection from outside pressure. Legislation can provide legal recognition for a strong and defensible

mandate, strengthening the will of those leading an institution to stand up to pressure across political cycles.

These measures are often associated with a desire to safeguard independence in our protective institutions; the Ministry for the Environment and Department of Conservation, for example, are (and need to be) close to an accountable Minister, but can still point to specific functions in statute to defend broader stewardship and advocacy work.

In practice, it would be necessary to establish new institutions like an Oceans Agency or Oceans Commission through legislation, because they would have defined mandates, functions and powers. That would be particularly the case if an Agency had its own regulatory powers to make decisions independent of delegation from Ministers. An Oceans Ministry, if adopted, would not necessarily require a statutory basis, but may benefit from one. That is because it could subsume part of the advisory roles of other statutory entities like the Ministry for the Environment and Department of Conservation, which have carefully defined mandates that would need to be incorporated into (and defended within) the broader mandate of the Ministry.¹⁰⁸

The formality with which an institution is created also affects its longevity. Some institutions might be project-based consortia of different interests and therefore are easily disbanded after their job is done. That has value when it comes to (for example) collaborative processes. However, it comes with risks.



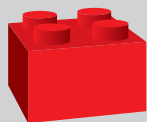
Sandfly Bay, Otago Peninsula

Raewyn Peart

A spotlight on the Seachange Tai Timu Tai Pari initiative

The Sea Change Tai Timu Tai Pari project produced a non-statutory spatial plan for the Hauraki Gulf. This was developed by a collaborative grouping comprising four mana whenua and 10 stakeholder representatives (a “stakeholder working group”). The final plan was agreed by all members on a consensus basis and then adopted by a separate co-governance body.

However, once the plan was finalised (after three years) these two groupings were disestablished. This has contributed to difficulties in implementing the plan and the dissipation of the knowledge and social capital developed over the duration of the project.¹⁰⁹ This raises the question as to whether co-governance and collaborative groupings should be established on an ad hoc basis for specific projects or whether such entities should be institutionalised so that they can contribute to the entire planning cycle (plan preparation, implementation, review and adaptation). An integrated Oceans Agency might perform that role were it to be created but, if not, more focused project-based institutional arrangements might benefit from formal establishment and more defined, long-term roles.



Institutions or groups responsible for marine spatial planning could be given formal legal status in the future, to ensure they endure to oversee implementation.

Another pertinent question, related to the one above about institutional mandates, is the extent to which Māori institutions should be “formalised” within a Western system of legislation and institutions. Where complex co-governance and hybrid entities are envisaged (eg boards or guardians) this is likely to require a legislative foundation to clarify relationships between Māori and non-Māori representation. The same reasoning would apply to formal advisory entities like an Oceans Commission or Tikanga Commission, to ensure their legal standing and influence. However, there is the question of mana whenua entities themselves. Are these “institutions” to be enshrined in law?

A spotlight on iwi authorities

During the development of the RMA and Local Government Act, a parallel statute was also being developed: the Rūnanga a Iwi Act. This statute was to provide details for the structures, constitutions and operations of iwi organisations, and their formal connections and relations to councils and the RMA. The legislation was enacted and repealed on the same day, in 1991. Leaving aside the question of whether this would have been beneficial legislation for Māori, it would have clarified how local government should engage with iwi. In its absence, and the absence of any other comparable legislation, the nature of iwi engagement has been unclear and is often problematic, including in the marine context. The RMA definition of an iwi organisation is not helpful in this context.

In some areas there is little or no ambiguity about which is the relevant iwi to engage with (but even in those areas there can still be localised dispute). As customary marine title applications are progressed, this may assist as well. However, in other areas, it is very unclear and often highly contested. For example, in Northland there are hundreds of hapū, some with populations greater than many iwi. In practice, engagement with hundreds of entities is not usually possible. How should councils, and indeed the Crown, determine who to engage with? What criteria are relevant when deciding this? In the marine context, things can become even more blurred, because although the deep sea environment is of considerable spiritual importance to Māori, authority is less clear and is not likely to accord with Western management areas and lines drawn on a map (eg large quota management areas). Even though property rights in quota have been settled, what a meaningful co-governance framework for the EEZ or fisheries might look like is still unclear.

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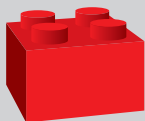


Seachange Tai Timu Tai Pari field trip

This is an area for which improved statutory definitions, processes and standards could be developed. In some places, such as Auckland City, the “mana whenua” recognised are those with Treaty settlements. While this ensures that the entities have a legal personality and constitutions providing for accountability to beneficiaries, a tikanga based solution is an alternative. A requirement that there are processes specific to RMA implementation agreed by iwi, which require the iwi organisation to ensure that beneficiaries are appropriately informed and included in relevant decisions, could be considered as a means of satisfying hapū anxieties.

Whatever the solution, the problem is a real one for both councils and tangata whenua in many regions and could usefully be addressed. However, it may be that efforts to draw sharp boundaries of this nature by developing new statutory definitions do not sit well with tikanga, and more nuanced solutions may need to be explored. For example, the courts have recently developed the idea of joint or overlapping jurisdictions in customary marine title areas under the MACA Act (“shared exclusivity”),¹¹⁰ reflecting historical relationships between different iwi and hapū. Yet seeking to define and pigeon-hole Māori identity and representation through a Western system is one that may run into problems.

Institutions can be created formally through statute or, especially in the case of central government, informally. Careful thought will need to be given to whether some institutions are formally framed in legislation, particularly if they require a clear statutory mandate that can be tested in the courts or where their continued existence is important to achieve an outcome. There are questions about the extent to which Māori institutions should be formalised and framed by statute, or whether their features should be determined by tikanga.



Māori institutions, such as iwi authorities, a Tikanga Commission, and a more nuanced layering of other entities, could be formalised through statute in a future system.

12.10 Power

Institutions can have varying degrees of power. Some make final, binding decisions (like the Environment Court or Ministers); others make decisions that can be appealed (like councils and other consent authorities); still others have only advisory or recommendatory power (like the Parliamentary Commissioner for the Environment or various Ministries). The degree of power that an institution has is closely correlated with its other characteristics and cannot be considered in isolation of them. For example, as we have said previously:¹¹¹

First, the task an institution performs is relevant to its power. Imposing regulation inherently requires greater power than advocacy, for example.

Secondly, an institution's degree of independence or accountability is crucial to the degree of power it exercises. In fact, the most important tension is not between independence and accountability per se, but rather the degree of power that is given to independent and accountable institutions. It is generally appropriate for value-based decisions (policy and often regulation) to be ultimately determined by accountable institutions.¹¹² It is generally appropriate for other decisions (whether purely technical or the implementation/application of values) to be ultimately determined by independent and expert institutions.

Thirdly, an institution's degree of centralisation is significant. We do not always assign responsibilities to either central or local authorities; we frequently assign them to both. As with independence, the distinction is often not between central and local per se, but rather the relative degree of power that is assigned to central and local.

Checks and balances on power are extremely important. Sometimes that can be achieved by sharing power, or by creating a hierarchy of power. For example, decisions on regional coastal plans by regional councils can be appealed to the Environment Court,¹¹³ and regional councils and Fisheries New Zealand are both empowered to protect fish habitats.¹¹⁴ As discussed earlier, one option for the future would be for decision-making power (eg for regional plans and sustainability measures) to lie with more independent or arm's length institutions like an Oceans Agency or EPA (or Environment Court on appeal), if sufficiently clear policy guidance was enshrined in legislation or provided by accountable institutions like Ministers or councils.

Checks and balances can also be achieved by surrounding those in a position of power with watchdogs, even if they have little power themselves. This recognises that there is significant power, not just in institutions themselves, but in an informed and engaged electorate that can change their behaviours based on independent and trusted advice. In that sense, an expanded Parliamentary Commissioner for the Environment, Oceans/Tikanga Commission and Environmental Defender's Office, linked to requirements for clear and accessible environmental reporting, would wield significant moral power. They could also be given legal powers to back this up; for example, by conferring on them the legal standing (or duty) to appeal some decisions. At the most extreme end of the scale, if a written constitution were to be adopted, the courts could have the power to strike down parliamentary legislation for inconsistency with high level marine environmental principles.

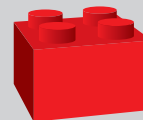
Our institutions can have varying degrees of power. Whether we want an institution to have a significant degree of power in any given situation will depend on its other characteristics (eg whether it is central or accountable). It can be valuable to have institutions that have no decision-making power, but which exist to hold those that do to account.

Perhaps the most significant question about power is the relative role of public authorities and mana whenua (and the extent to which mana whenua perform the role of public authorities). While norms reflecting te ao Māori are important, as are the deployment of tools consistent with tikanga, institutional design is really where the rubber hits the road. Of course, this is a constitutional conversation that has much broader application, and a rich debate is happening in the wake of *He Puapua* and *Matike Mai* (see Chapter 4). Much of this requires political resolution, but it is worth exploring options for what it might mean in the oceans.

Power sharing could lead to many different institutional forms. Some might lead to changes within existing institutions, which can be charged with protecting Māori rights and interests:¹¹⁵

Such directions are found in, for example, the provisions in the RMA concerning ancestral relationships, taonga, and wāhi tapu.¹¹⁶ In crude terms, that is about trusting institutions that are there for other reasons¹¹⁷ – whether Crown or local government – to protect Māori interests on behalf of Māori while performing those roles. Such directions could be strengthened, and to do so is consistent with the Crown's duty of active protection.

For example, the direction to councils and Ministers under the RMA/NBA could be strengthened to ensure the principles of te Tiriti are given effect to.¹¹⁸ The result of the *Ngai Tai* decision could be that the Department of Conservation develops a clearer prioritisation of allocative rights for Māori under conservation laws and ensures that MPAs allow for customary practices.¹¹⁹ Support could be provided to increase capacity within iwi and hapū entities (to engage with multiple agencies and processes, and to undertake their own functions such as research and monitoring), and public authorities like councils or regional branches of government agencies could bolster their own in-house capacity in tikanga matters (even through co-location or secondment arrangements).



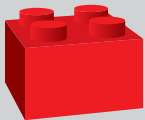
A future system could strengthen obligations on existing institutions to safeguard the interests of mana whenua.

Secondly, the structure of decision-making institutions themselves can be modified to be more reflective or representative of Māori interests. This does not necessarily give Māori agency, but ensures that their voice is heard – not just that their interests are considered by a benevolent Western authority. For example, Māori wards for regional councils could be made mandatory (rather than just preventing referenda from overturning their use).¹²⁰



Whareniui, Orakei Marae

Advisory bodies could be rolled out on a more systemic basis, transforming more targeted entities like the EEZ Act's Māori Advisory Committee into a Tikanga Commission with roles across all marine legislation. A formal Tikanga Commissioner could even share a watchdog function with the Parliamentary Commissioner for the Environment or Oceans Commission rather than just being an expert advisor to it. It could formally assess *compliance* with te Tiriti rather than just making recommendations about it. And if we were to implement legal personhood for the moana, the human face or representative of that person could be co-governed.



A future system could provide for independent Māori advisory or watchdog institutions in a more systemic way, such as through a Tikanga Commission, that have the power and duty to assess compliance by public authorities with te Tiriti obligations.

More broadly, co-governance arrangements are as varied as institutions themselves, and could be clipped onto existing arrangements.

A spotlight on co-governance

There are many forms that co-governance could take in the marine context. At a national level this can prove challenging, although there are interesting and contentious possibilities for nationwide constitutional changes being floated.¹²¹ At a regional and local level there are a number of existing models that could be progressed.

For example, in contrast to the 50-50 split of appointees in an entity like the Waikato River Authority,¹²² the Hauraki Gulf Forum has only six tangata whenua representatives out of a total of 21 members (the other being from local and regional councils and government departments). Instead of being selected by iwi/hapū themselves, the tangata whenua representatives are appointed by the Minister of Conservation, although this is after consultation with tangata whenua and the Minister of Māori Affairs.¹²³ The Forum has no binding powers, but brings together iwi/hapū with local/ regional/ central government entities to share information and jointly consider management issues affecting the Hauraki Gulf.¹²⁴ It is therefore an integrating rather than a management body.

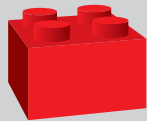
Despite no requirement in statute, it has recently adopted a co-governance leadership model with the appointment of co-chairs, one who is from and confirmed by its tangata whenua members.¹²⁵

Although it has done good work, one review has questioned the effectiveness of this model,¹²⁶ and there have been proposals to restructure it to be more in line with the Waikato River Authority (although with some modifications to incorporate community representation) together with a clearer vision and purpose.¹²⁷ This type of model, traditionally pursued via bespoke settlement processes, could be rolled out more broadly. Instead of adding layers of institutions (eg the Waikato River Authority does not replace the regional council)¹²⁸ we could reconsider co-governance in existing ones. Regional councils could have iwi appointees alongside elected representatives, or power could be transferred to an entity that does (eg the notion of joint planning committees under the proposed NBA). Crown entities and central government departments could even be reimaged so that their structures reflect co-governance. Rather than being a creature of the Crown, could we in the future have a Ministry of Oceans led by two Secretaries for the Ocean – one appointed by ministers and the other by mana whenua?

The structure of the non-statutory Sea Change Tai Timu Tai Pari project was novel in that it brought together co-governance and collaborative models for a specific project (developing a marine spatial plan). The 16-person governance body (“project steering group”) comprised eight mana whenua representatives selected through a tikanga Māori process and eight representatives of government entities. These included Auckland Council, Waikato Regional Council, Thames-Coromandel Council (representing territorial authorities more broadly), the Department of Conservation, Ministry for Primary Industries and Hauraki Gulf Forum. The stakeholder working group which prepared the plan itself included four tangata whenua representatives and 10 stakeholder representatives.

These models could provide a foundation for more systemic institutional arrangements in a future system, such as in the design of an Oceans Commission (which could be co-governed rather than sitting parallel to a separate Tikanga Commission). However, there is a significant difference between a non-statutory project steering group charged with developing a non-binding spatial plan and a co-governed entity with binding regulatory powers.

As customary marine title claims are progressed under the MACA Act, this provides another potential avenue for strengthening power sharing. For example, title holders could be conferred stronger rights to co-create regulation under the RMA and conservation legislation, or to establish locally specific sustainability measures for fisheries (eg binding rāhui within a customary marine title area) or bylaws (eg to address impacts of things like litter and tourist numbers). This could be significant, given the potential coverage of customary marine title claims across the moana. However, it is also important to remember that Māori interests exist outside the formal identification of customary marine titles and protected customary rights,¹²⁹ and many may contend that they should not be reliant on recognition by a colonial gatekeeper (Crown and courts).



A future system could provide various mechanisms for co-governance, including through Māori wards for regional councils, layers of bespoke location-based entities such as the Hauraki Gulf Forum and Waikato River Authority, or by strengthening powers for customary marine title holders to influence RMA instruments.

Arguably even the strongest co-governance approach fails to allow Māori to shape their own identity and destiny in a fundamental way, only enabling them to influence those who do. There have been calls to go beyond such models and instead recognise Māori sovereignty, kaitiaki responsibilities and tino rangatiratanga more directly, by transferring functions to iwi and hapū rather than creating hybrid institutions. Such models embrace Māori more as decision-makers than just as participants or the objects of decisions. It embraces the idea that “what we must guarantee for the future generations is not the preservation of cultural products, but the preservation of the capacity for cultural production.”¹³⁰ Tikanga evolves; it is not just an artefact to be protected.

For example, Robert Joseph has expressed a view that the RMA is “a right to culture model in that [it is] not aimed at granting political authority to Māori but rather focuses on stewardship, the ‘relationship’ of Māori with their environment, and effective participation in decision-making that may impact on them”.¹³¹ Despite the existence of mātaītai, taiāpure and the ability to formalise rāhui through temporary closures (as well as the significant quota and aquaculture space held by iwi through settlement legislation), the same could be said of the broader institutional framework under the Fisheries Act. And despite recent case law highlighting the strength of the obligation to give effect to the principles of te Tiriti,¹³²

marine conservation legislation in some senses remains insensitive to Māori cultural expectations (eg permanent no-take spatial protections through marine reserves). Work is ongoing in this space, and could inform future change.

One option, mentioned in Chapter 10, would be to clearly identify the circumstances in which section 33 should or must be utilised to transfer powers to mana whenua, and for similar provision to be made in other legislation. For example, that could be linked to the degree of ancestral connection, the presence of other existing rights, the strength of public interest or the existence of a recognised customary marine title.

Some have described this version of power sharing in terms of separate spheres: an enlargement of the rangatiratanga sphere of governance (Māori sovereignty), rather than a focus on hybrid arrangements (the confluence of rangatiratanga and kawanatanga – a “relational” sphere).¹³³ This can be understood as a fundamental rethink of the traditionally tripartite division of executive, legislature and judiciary in Western thought, not just another version of co-governance. Māori institutions are not just those to whom powers have been devolved by others, but rather a core element of our constitutional arrangements. At its most extreme, this could see a rethink about the shape of the legislature (eg a Māori upper house) or national executive, which would have significant implications for marine and resource management – ones that are hard to imagine in full.



Māori stone fish trap, Colville Bay

Raewyn Peart

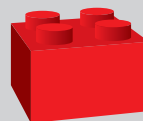
A spotlight on MPAs

There is an obligation for the Crown to allow for tino rangatiratanga over taonga under article 2 of te Tiriti o Waitangi. Tikanga has also been recognised as another legal regime that legislation must interact harmoniously with.¹³⁴ This arguably represents a new phase in the evolution of Aotearoa New Zealand law. It is particularly interesting to think about in the context of protected areas.

It would mean that institutional settings behind how MPAs are created, and by whom, would need to accommodate rangatiratanga, whether this is by devolving power, creating an interface between the kawanatanga and rangatiratanga “spheres”, or something else. As recognised by the Supreme Court, the ability to exercise kaitiakitanga is a corollary of the article 2 promise, so ongoing management tools within MPAs will also need to account for this.

Marine protection has been a sore point for Indigenous peoples and the exercise of their rights globally. Reform gives a chance to design a system that empowers rather than restricts, if it is done carefully and thoughtfully. A lot of this comes down to institutional design and power-sharing. Not only do MPA tools need to be sensitive to Treaty obligations, but mana whenua may require a place at the table in determining where they are located, and the nuance of restrictions contained within them. Ecological criteria may not be enough; cultural criteria are relevant too. However, a critical thing will be determining when cultural considerations and te Tiriti responsibilities morph into commercial and property interests, and how they interact with ecological and kaitiaki imperatives.

Questions about power are particularly important when it comes to the relationship between Crown and Māori institutions. A number of options are possible on this front, which go well beyond the oceans management system. Indeed, power sharing is at the heart of much broader conversations about the constitutional arrangements in Aotearoa New Zealand, which have been brought to the fore by initiatives like *He Puapua* and *Matike Mai*.



A future system could outline clear statutory principles by which some powers currently wielded by others (eg councils and various central government agencies) are to be transferred to mana whenua.



Deeper options for constitutional reform – to which institutions are central – could include foundational changes to the executive, legislative and judicial branches of government (eg a new Upper House of Parliament) where mana whenua institutions exist in parallel to Western style ones. These go beyond the oceans management system.

12.11 Common institutional characteristics

While there is value in having a suite of institutions with quite different and complementary characteristics, there are also some features that are common to all institutions. First, all require clear and predictable funding streams. Core funding is especially important for those having a degree of independence from politically accountable institutions (who quite rightly hold the discretionary purse strings), or where local institutions are reliant on central funding. That is particularly important when thinking about institutions having an advocacy role (such as the Department of Conservation or an Environmental Defenders Office) and those acting as checks and balances (eg a Parliamentary Commissioner for the Environment or Oceans Commission).

Capability is just as important as funding. Institutions rise and fall on the strength of the people within them. That is partly about technical expertise and experience, but includes capability in matters relating to te Tiriti o Waitangi and mātauranga Māori more generally. We need to be mindful that Aotearoa New Zealand is a small country, and a proliferation of institutions can affect our ability to staff them appropriately. Māori are under particular capacity constraints.

The culture and leadership within institutions is crucial to their performance.¹³⁵ That is hard to legislate for, as a lot will always come down to the people involved. This speaks to the need to think about our education, professional training and recruitment systems. For example, some at workshops suggested the need for a clearer career path for

dedicated oceans managers, including with respect to ecosystems-based management, rather than policy generalists. Some of the system's non-regulatory tools mentioned in Chapter 8, like the school curriculum and environmental reporting, are not only wielded *by* institutions but also *shape* the institutions (and leaders) of the future. They are formal interventions that can be taken today to shape the things we cannot so easily influence tomorrow.

Some characteristics are necessary for all institutions to have. Things like adequate funding, capacity and capability, and culture are essential.

12.12 Concluding comments

In this chapter we have considered potential options for institutional design in a future oceans management system (and see Figure 12.5 for a summary of them). These are by no means exhaustive. They are intended as a starting point for discussion. While many specific options are possible, and we have covered some of them – ranging from small scale changes to existing entities (eg strengthening the mandate of the EPA) or refinements of the boundaries between them (eg clarifying the respective roles of Fisheries New Zealand and regional councils), to the removal, replacement or addition of others (eg merging multiple agencies into an Oceans Agency) – it is useful to think about institutional design in a structured way.

It may be useful to frame this conversation in terms of (1) the different characteristics institutions can have (such as their independence, centralisation, specificity of task and subject, and mandate), and (2) how the entities defined by those characteristics interact with each other.¹³⁶ Those two considerations are inextricably intertwined, but the latter may prove the more important driver from a system perspective. For example, it would not be advisable to reform the EPA (eg extending its jurisdiction) without also thinking about how it would relate to the jurisdiction of regional councils, government departments and *mana whenua*.¹³⁷ Similarly, the mandate of one institution (eg the Department of Conservation) cannot be defined without thinking about how it would complement or otherwise be designed to work with that of another (eg the Ministry for the Environment). And we cannot contemplate an Oceans Agency, Oceans Ministry or Oceans Commission without thinking about the challenging boundaries to be managed between them and with terrestrially focused institutions.

In short, policy makers cannot progress piecemeal reforms of individual entities in isolation of what their broader place in the system is seen to be. Changes to one will have cascade effects on others, and risk uncertainty and added complexity. Of course, this speaks to the need to think about how a future system – including its institutions, but also its legislation, tools and overarching norms – could operate as a whole. We look at various starting points for what that whole of system reform might look like in Chapter 13.



Ngarunui Beach, Raglan

An Oceans Ministry	A future system could combine all the marine elements of existing government departments into an integrated Oceans Ministry. This would create a greater focus on marine issues and go beyond the integrated ministerial portfolio for Oceans and Fisheries and the current Oceans Secretariat.
An Oceans Agency	An integrated, arm's length oceans regulator could be created, which could take on some or all marine functions of regional councils, the EPA, Maritime New Zealand and potentially even the Department of Conservation. This could, however, cause fragmentation across the land-sea divide and the organisation may lack a clear purpose or mandate.
Strengthening and expanding the role of the EPA in the oceans	At the moment, the EPA has a relatively limited role with respect to the oceans, and a relatively constrained mandate. As our national environmental regulator, this role could be expanded in a variety of ways. It could even become an Oceans Agency.
A greater role in fisheries management for regional councils	Regional council jurisdiction could be expanded beyond that confirmed in the <i>Motiti</i> decision (eg by allowing councils to set measures like TACs in local areas). ¹³⁸ That could also be devolved to communities and iwi/hapū in partnership.
More integrated arrangements for councils and iwi/hapū to work together in plan creation	This has been proposed by the Randerson Panel in the notion of a joint planning committee for regional plans under the NBA and for regional spatial strategies under the Strategic Planning Act. ¹³⁹ This could potentially be extended to fisheries decision-making too.
A greater role in oceans and fisheries management for iwi and hapū	Exploring institutional arrangements goes deep into questions of mana or governance jurisdiction for Māori (including the broader discussion around <i>He Puapua</i>), ¹⁴⁰ and could take many forms (eg transfer of powers to iwi/hapū, co-governance, Māori wards at council level, novel mechanisms like legal personhood for nature).
An Oceans Commission	This entity could take different forms (eg it could have some regulatory powers), but in essence would be some form of independent oversight or watchdog body with a clear mandate to defend the interests of te moana. It could be designed to resemble the Climate Change Commission, the Māori Advisory Committee under the EEZ Act, or it could even be a vehicle through which te moana is given legal personhood (with the Commission being the voice of te moana).
The creation of a regionally-specific "guardians" model	This could see the replication of the guardians that have been created on a bespoke basis already (eg in Fiordland and Kaikōura), ¹⁴¹ and rolled out across the country. It would be one way to allow local involvement and integrated place-based oversight across multiple other institutional jurisdictions (eg conservation, resource management, fishing).
A national Māori advisory body for oceans	This could take the form of an independent Tikanga Commission with a branch focused on te moana, or it could be a vehicle for a more representative, national-level Māori body with which the Crown partners. The extent to which this would have decision-making power depends on a broader conversation about Māori sovereignty.
A more structured role for the Parliamentary Commissioner for the Environment	The Parliamentary Commissioner could have a stronger mandate (and resourcing) to be involved in the preparation of instruments related to the oceans, including regional plans, fisheries plans, and marine spatial plans.
A role for the Environment Court in hearing merits appeals under the Fisheries Act and Marine Reserves Act (or its replacement)	The Environment Court has an important role with respect to coastal plans under the RMA, but not with respect to fishing or marine protection. Its role could be expanded to provide greater oversight with respect to fisheries management and the creation of marine protected areas.
An independent science agency to conduct core oceans research or to guide/direct research needs ¹⁴²	This would not necessarily be focused only on marine research, but that would be a core component of its mandate.

Figure 12.5: A selection of institutional design options for a future system



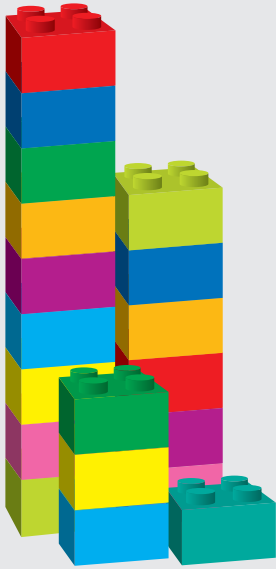
Summary of options for reform: Institutional design

- The role of the courts could be expanded in a future oceans management system to include appellate authority over the merits of some fisheries decisions and some national direction under the RMA/NBA.
- Some regulation making powers could be shifted to more independent or arm's length institutions, including some sustainability measures for fisheries and a new class of environmental limits under the RMA/NBA. This would, however, require accountable institutions (or legislation itself) to provide clear and direct policy guidance (eg on bottom trawling or sediment) amenable to independent interpretation.
- Independent hearings panels with stronger legal influence over final decisions on planning and regulatory instruments could be rolled out in a future system. This has been proposed for combined plans under the NBA but could be extended to planning processes under other marine legislation, like the Fisheries Act and conservation statutes.
- More independent advisory institutions could be established in a future system, whether through a place-based guardians model or domain-based entities. A Tikanga Commission could be established to provide advice into all statutory processes (including integrative ones like marine spatial planning).
- An independent entity focused on supporting marine research could be established, either as a marine division of an Environmental Research Council or as an independent body (Marine Research Council). It could include a branch focused on strengthening mātauranga Māori.
- An independent Oceans Commission could be established to fulfil a similar place in the system as the Climate Change Commission. Alternatively, both could be combined into a broader Futures Commission (potentially an expanded Parliamentary Commissioner for the Environment) to cover the whole environment.
- Legal personhood for the moana could be supported by institutional arrangements like guardians, an Oceans Commission, an Oceans Ombudsman or the kinds of models developed for Te Urewera and the Whanganui River.
- Central government could be tasked with a more proactive role in marine management under the RMA, including the mandatory production of regulatory provisions giving effect to the NZCPS and the spatial identification of areas for protection.
- In a future system, regional councils could continue to have jurisdiction over truly coastal matters, out to a three nautical mile boundary or similar. Alternatively, councils could have jurisdiction only to mean high water springs. In either case, other parts of the marine area could be managed by a well-resourced Oceans Agency.



Summary of options for reform: Institutional design *(continued)*

- A dedicated Oceans Agency could operate at arm's length from government and be the implementing agency for the Oceans Act. Alternatively, a strengthened EPA could take on this role. Māori input into the Agency's decision-making could be supported through a strengthened Ngā Kaihautū Tikanga Taiao model.
- The seaward boundary of regional council jurisdiction could be redrawn, based on the approximate boundaries of ecological systems, including potentially expanding it beyond 12 nautical miles.
- Regional councils could be given more jurisdiction over fishing activity for biodiversity purposes, embracing Motiti and taking it even further. However, that may not be necessary or desirable if other central government agencies took a stronger role in exercising powers under the Fisheries Act, RMA or reformed conservation legislation.
- An oceans co-governance entity between Māori and the Crown could be established at a national level and/or regional co-governance partnership bodies could be established at a regional level.
- Three waters services (including wastewater and stormwater which can have significant impacts on the marine environment) could continue to be managed by territorial authorities and council controlled organisations, or there could be greater centralisation via co-governed national entities or state owned enterprises.
- If we were to give rights to nature, the "moana" as a person could be centralised (a single person) or have ecologically defined regions (different parts of the same body) that can speak for their own interests (or both, where branches come together in something like an Oceans Congress).
- Place-based institutional arrangements could be rolled out more broadly across the moana, reflecting existing guardian and advocacy roles performed in Kaikōura, Fiordland and the Hauraki Gulf. For example, every new MPA could have its own guardian.
- Inter-regional boundaries could be shifted so that they better reflect the ecological characteristics of the sea. Alternatively, a separate layer of maritime councils could be established with jurisdiction over biophysically defined parts of the moana.
- Future institutions could focus on different geographical spaces: some for land and some for the sea, with an integrated Oceans Agency focused on the latter.
- An institutional overlay, in the form of a Coastal Commission, could be established to integrate management of land and the sea if a sharp division was created between land management (by councils) and marine management (by an Oceans Agency or similar).



Summary of options for reform: Institutional design *(continued)*

- An Oceans Agency could be given an integrating role by ensuring that terrestrial plans and regulations complied with the requirements of marine legislation.
- An independent Oceans Commission could perform a watchdog function over all government responsibilities at sea, but it could equally be incorporated into an entity like a Futures Commission applying to the whole of Aotearoa New Zealand.
- The Oceans Secretariat could be given formal statutory basis and its membership extended to representatives from regional government and mana whenua.
- The “policy shop” advisory functions of ministries could be separated from their regulatory tasks.
- Regulatory tasks could be more clearly separated from enforcement tasks.
- Policy and regulatory tasks could be more clearly separated from advocacy.
- Some funding responsibilities could be separated from other tasks.
- New institutions could be created, or existing ones reimagined, to perform innovative tasks.
- Existing institutions could be given stronger or more specific mandates than at present. These could be more directive (ie to take particular forms of action), to reflect a more outcomes-based management system.
- Mana whenua could be given statutory mandates when exercising significant public powers in a future system.
- Institutions or groups responsible for marine spatial planning could be given formal legal status in the future, to ensure they endure to oversee implementation.
- Māori institutions, such as iwi authorities, a Tikanga Commission, and a more nuanced layering of other entities, could be formalised through statute in a future system.
- A future system could strengthen obligations on existing institutions to safeguard the interests of mana whenua.
- A future system could provide for independent Māori advisory or watchdog institutions in a more systemic way, such as through a Tikanga Commission, that have the power and duty to assess compliance by public authorities with te Tiriti obligations.



Summary of options for reform: Institutional design *(continued)*

- A future system could provide various mechanisms for co-governance, including through Māori wards for regional councils, layers of bespoke location-based entities such as the Hauraki Gulf Forum and Waikato River Authority, or by strengthening powers for customary marine title holders to influence RMA instruments.
- A future system could outline clear statutory principles by which some powers currently wielded by others (eg councils and various central government agencies) are to be transferred to mana whenua.
- Deeper options for constitutional reform – to which institutions are central – could include foundational changes to the executive, legislative and judicial branches of government (eg a new Upper House of Parliament) where mana whenua institutions exist in parallel to Western style ones. These go beyond the oceans management system.

Endnotes

- 1 We were left with separate legislation for marine mammals, wildlife, marine reserves and land-based things like reserves and national parks, but the idea was that such things would matter less with a new Department coordinating them.
- 2 See New Zealand Government "Implementation - after a settlement is complete" <www.govt.nz/browse/history-culture-and-heritage/treaty-of-waitangi-claims/implementation/>.
- 3 See Fiordland (Te Moana o Atawhenua) Marine Management Act 2005, s 12; and Kaikōura (Te Tai o Marokura) Marine Management Act 2014, s 6.
- 4 See Greg Severinsen, Raewyn Peart and Bella Rollinson *The Breaking Wave: A conversation about reforming the oceans management system in Aotearoa New Zealand* (Environmental Defence Society, August 2021), ch 8.
- 5 For example, since 1995 we have had the Ministry of Agriculture and Fisheries, Ministry of Fisheries, Ministry of Agriculture and Forestry, Ministry for Primary Industries, and now Fisheries New Zealand (an agency within the Ministry for Primary Industries) as the country's fisheries manager. On this, see the spotlight later in Chapter 12.
- 6 David Parker, Minister for Oceans and Fisheries "Oceans and Fisheries: Our vision for healthy and productive oceans" (speech to the Forest and Bird Conference, 26 June 2021).
- 7 Which could, for example, have a more protective mandate in the EPA Act, or have stronger regulatory functions under the NBA (eg creating rules necessary to give effect to national direction).
- 8 For example, the investment uncertainty for activities like offshore aquaculture, wind generation and mining does not arise because of the existence or features of regional councils or the EPA per se, but rather because their toolkit (eg the NZCPS and regional plans) has gaps. Similarly, it is arguable that the lack of MPA deployment is less to do with the characteristics of the Department of Conservation than it is due to shortcomings in the Marine Reserves Act.
- 9 And, indeed, the extent to which particular outcomes identified in Chapter 2 as sub-optimal are problematic. This depends on the worldviews, principles and objectives that underpin a future system: see Chapter 7.
- 10 Some might see the notion of a "limit" in the marine environment as practically unattainable (see Chapter 7).
- 11 New Zealand Productivity Commission *Low-emissions economy: Final Report* (August 2018) at 181. The Commission cites different ways to secure independence within institutions, such as "the ability to adjust the regulatory settings and rules (regulation independence); the ability to undertake functions without interference (operational independence); funding arrangements that protect the regulator from external pressure (budgetary independence); and formal distance from the Executive and security of tenure for governors and senior management (institutional independence)."
- 12 "To some extent" because Ministers are not directly elected.
- 13 And the policies and rules created by elected authorities.
- 14 As well as unitary authorities, comprising both regional councils and territorial authorities.
- 15 That in itself has institutional design implications. For example, judicial review is an institutional safeguard – the High Court can strike down decisions for failing to consider relevant information, for considering irrelevant things, or for unreasonableness.
- 16 It is also not always easy to disentangle value-based judgments from technical questions, and some fluid institutional arrangements reflect this. For example, there is a real, but not total, separation between Ministers and ministries, and between councils and their staff. On the importance of independence in enforcement action, see Greg Severinsen *Reform of the Resource Management System: A model for the future* (Environmental Defence Society, Auckland, December 2019) at 139.
- 17 David R Keller (ed) *Environmental Ethics: The big questions* (Wiley-Blackwell, Chichester (West Sussex), 2010) at 379.
- 18 Elli Louka *International environmental law: Fairness, effectiveness, and world order* (Cambridge University Press, Cambridge, 2006) at 19.
- 19 Setting aside the more fundamental arguments around ontology and the objectivity of science.
- 20 Or Ministries themselves, where delegated by Ministers.
- 21 Or the more nuanced system proposed under the NBA, resembling the Auckland Unitary Plan process, where appeals are available but constrained.
- 22 See Chapter 7.
- 23 A view supported by the fact that there are no appeal rights on central government decision making under the EEZ Act, where councils do not have roles.
- 24 Resource Management Act 1991, pt 6AA.
- 25 See Resource Legislation Amendment Act 2017, s 227 (which replaced s 52 of the EEZ Act).
- 26 *Central Plains Water Trust v Synlait Ltd* [2009] NZCA 609, [2010] 2 NZLR 363.
- 27 Which can be done under the RMA using Part 7A, where authorisations to apply for consent – an allocative mechanism – must be obtained before submitting a consent application.
- 28 See Chapter 7.
- 29 In a conceptually similar manner that the independent Reserve Bank is charged with setting monetary policy primarily through the official cash rate, which has a clear statutory goal (inflation) largely independent of other policy concerns that could be balanced against it.
- 30 See Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010. The vision and strategy developed under the Act is deemed to be part of the Waikato Regional Policy Statement, and prevails over most instruments made in the RMA if they are inconsistent, as well as triggering reviews of resource consents (see ss 10-17).
- 31 For example, urban design panels in Auckland.
- 32 See Ministry for the Environment "Resource Management Amendments 2013: Fact Sheet 4 - Auckland Unitary Plan" (August 2013) <www.environment.govt.nz>
- 33 Conservation Act 1987, s 6A.
- 34 See Chapter 4.
- 35 Parliamentary Commissioner for the Environment *A review of the funding and prioritisation of environmental research in New Zealand* (December 2020) at 4.
- 36 Parliamentary Commissioner for the Environment *A review of the funding and prioritisation of environmental research in New Zealand* (December 2020) at 5.
- 37 Andrea Vance "Cash-strapped DOC forced to cut subantarctic science" *Stuff* (online ed, 6 February 2022) <<https://www.stuff.co.nz>>
- 38 Well-being of Future Generations (Wales) Act 2015, s 18(a).
- 39 Interestingly, the Welsh government took inspiration from the Aotearoa New Zealand system when developing its natural resource management structure. See Victoria Jenkins "Sustainable management of natural resources: Lessons from Wales" (2018) *Journal of Environmental Law* 1 at 9.
- 40 For example, through a Children's Commissioner and the paramouncy of the interests of the child in Family Court proceedings. See Oranga Tamariki Act 1989/Children and Young People's Well-being Act 1989, s 4A.
- 41 Te Awa Tupua (Whanganui River Claims Settlement) Act 2017, s 14.
- 42 Te Urewera Act 2014, s 17.
- 43 Section 45.
- 44 Andrew Geddis and Jacinta Ruru "Places as Persons: Creating a New Framework for Māori-Crown Relations" in Jason Varuhas (ed) *The Frontiers of Public Law* (Hart Publishing, London, 2019).
- 45 At 17.
- 46 At 17.
- 47 At 17.
- 48 Framework Law of Mother Earth and Integral Development for Living Well 2012 (La Ley Marco de la Madre Tierra y Desarrollo Integral para Vivir Bien) (Bolivia).
- 49 Not dissimilar to Local Government New Zealand.
- 50 New Zealand Productivity Commission *Better urban planning: Final Report* (February 2017) at 57.
- 51 New Zealand Productivity Commission *Better urban planning: Final Report* (February 2017) at 68.
- 52 Health standards apply, but these are designed to trigger warnings for people to avoid contact and food gathering rather than trigger enforcement.
- 53 The NZCPS is mandatory, but no other national direction for the marine area has been forthcoming (other than pollution and dumping at sea regulations, which are primarily a vehicle for translation of international law under the London Dumping Protocol – see Chapter 3).
- 54 Although biosecurity functions are shared between Biosecurity New Zealand and regional councils.
- 55 Other than the NZCPS, which can be as weak or strong as Ministers see fit.
- 56 It is unclear what those limits must include, and the extent to which they must be regulatory or simply a firmer iteration of policies in the NZCPS. See Ministry for the Environment *Natural and Built Environments Bill* (Exposure Draft, 2021), cl 7; Ministry for the Environment *Natural and Built Environments Bill Parliamentary Paper on the Exposure Draft* (June, 2021).

- 57 Raewyn Peart *Farming the sea: Marine aquaculture within resource management reform* (Environmental Defence Society, Auckland, 2019).
- 58 Department of Internal Affairs "Local Government in NZ" <<https://www.localcouncils.govt.nz/>>
- 59 There would be extremely complex issues to grapple with here; see Barry Barton, Kimberley Jane Jordan and Greg Severinsen *Carbon capture and storage: Designing the legal and regulatory framework for New Zealand* (Centre for Environmental, Energy and Resources Law, University of Waikato, 2013).
- 60 Noting that catchments are not the only meaningful way to divide land-based jurisdictions.
- 61 See the discussion on an Oceans Act in Chapter 11.
- 62 Public confidence in impartiality drives the need for independent institutions; see New Zealand Productivity Commission *Better urban planning: Final Report* (February 2017) at 240.
- 63 Raewyn Peart *Voices from the sea: Managing New Zealand's fisheries* (Environmental Defence Society, Auckland, 2018) at 116.
- 64 Nita Blake-Persen "DOC 'nobbled' by previous govt - environmental lawyer" RNZ (online ed, 8 November 2017) <www.rnz.co.nz>
- 65 Resource Legislation Amendment Act 2017, s 227 (which replaced s 52 of the EEZ Act).
- 66 Compare Raewyn Peart *Voices from the sea: Managing New Zealand's fisheries* (Environmental Defence Society, Auckland, 2018).
- 67 Crown Entities Act 2004, s 7
- 68 Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation Synthesis Report* (Environmental Defence Society, Auckland, December 2018) at 167.
- 69 Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation Synthesis Report* (Environmental Defence Society, Auckland, December 2018) at 180.
- 70 See Kaikōura Te Tai o Marokura Marine Management Act 2014, s 8.
- 71 UNESCO "Te Wahipounamu – South West New Zealand" <<https://whc.unesco.org/en/list/551/>>
- 72 Ministry for the Environment "Science and data at MfE" <<https://environment.govt.nz/facts-and-science/science-and-data/>>
- 73 See Department of Conservation and Ministry of Fisheries *Marine Protected Areas Policy and Implementation Plan* (Department of Conservation and Fisheries New Zealand, Wellington, 2005).
- 74 Or regionalised branches of an Oceans Agency.
- 75 As explored further below, that could be limited to the operational components of those organisations, rather than their policy advice roles (which could remain in separate ministries or combined into an Oceans Ministry).
- 76 Especially where wastewater overflows into stormwater system, where the systems are combined such as in parts of Auckland.
- 77 Resource Management Act 1991, s 59.
- 78 Although the NZCPS itself is not just marine focused; it includes the whole coastal environment.
- 79 Although different institutions do have roles under it, so there isn't total institutional integration.
- 80 In that biosecurity incursions are legitimately treated as emergencies.
- 81 Ministry for Primary Industries *Craft Risk Management Standard: Biofouling on Vessels Arriving to New Zealand* (Ministry for Primary Industries, CRMS-BIFOUL, 15 November 2018).
- 82 Deidre Koolen-Bourke and Raewyn Peart *Conserving Nature: Conservation System Reform Issues Paper* (Environmental Defence Society, Auckland, 2021).
- 83 See the discussion further below regarding the separation of policy and regulatory tasks across institutions.
- 84 Fishing includes some freshwater species, so is arguably about a focus on a subject that crosses the land sea divide.
- 85 The IMO was enacted on 6 March 1948 by the Convention on the International Maritime Organization 289 UNTS 48 (opened for signature 6 March 1948, entered into force on 17 March 1958) [IMO Convention].
- 86 IMO Convention, art 1.
- 87 Elizabeth Macpherson and others "Hooks" and 'Anchors' for Relational Ecosystem-Based Marine Management" (2021) 130 Marine Policy 104561.
- 88 In making decisions on planning objectives, policies and rules, as well as resource consents, under the RMA.
- 89 Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation Synthesis Report* (Environmental Defence Society, Auckland, December 2018) at 170.
- 90 See Resource Management Review Panel *New Directions for Resource Management in New Zealand* (2020).
- 91 That said, the actual risk may depend on other things: the effectiveness of internal divisions within an institution, whether regulatory and operational mandates are conflicting, and the availability of review or appeal rights.
- 92 As well as the ability for an applicant or submitter to require an independent commissioner to hear an application: Resource Management Act 1991, s 100A.
- 93 On the issues arising from management of some council-controlled water assets, see Government Inquiry into Havelock North Drinking Water *Report of the Havelock North Drinking Water Inquiry: Stage 1* (May 2017); Local Government New Zealand *Improving New Zealand's water, wastewater and stormwater sector* (September 2015).
- 94 New Zealand Productivity Commission *Low-emissions economy: Final Report* (August 2018)
- 95 See generally Deidre Koolen-Bourke and Raewyn Peart *Conserving Nature: Conservation System Reform Issues Paper* (Environmental Defence Society, Auckland, 2021).
- 96 The Local Government Act does not itself provide much guidance.
- 97 See generally David Young *Values as law: The history and efficacy of the Resource Management Act* (Victoria University of Wellington Institute of Policy Studies, Wellington, 2001).
- 98 Under section 430, the objective of Maritime New Zealand is to undertake its safety, security, marine protection, and other functions in a way that contributes to the aim of achieving an integrated, safe, responsive, and sustainable transport system. Its functions include the "protection of the marine environment in New Zealand", and membership of its board is influenced by what the "Minister considers will represent the public interest in maritime matters".
- 99 Environment Protection Act 2017 (Vic), s 6(1).
- 100 Environmental Protection Authority Act 2011, s 12.
- 101 The government is elected to pursue the mandate given it by voters and must be free to do so.
- 102 That may be difficult, as it is difficult to separate an environmental role from other roles in te ao Māori. Who would get to decide?
- 103 For example, the Ministry for Primary Industries and its business units are not creatures of statute, nor is the Ministry of Transport.
- 104 Fisheries Act 1996, s 276 and following.
- 105 Resource Management Act 1991, s 149J.
- 106 Raewyn Peart *Voices from the Sea: Managing New Zealand's fisheries* (Environmental Defence Society, Auckland, 2018) at 112-113.
- 107 Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation Synthesis Report* (Environmental Defence Society, Auckland, December 2018) at 172.
- 108 See Environment Act 1986, s 31; Conservation Act 1987, s 6.
- 109 Raewyn Peart *Turning the tide: integrating marine planning in New Zealand* (Environmental Defence Society, Auckland, 2018).
- 110 See *Re Edwards (Te Whakatohea (No 2))* [2021] NZHC 1025.
- 111 Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation Synthesis Report* (Environmental Defence Society, Auckland, December 2018) at 173.
- 112 Albeit informed by independent advice and made in a transparent and well-considered way. Generally, see New Zealand Productivity Commission *Better urban planning: Final Report* (February 2017) at 390.
- 113 And require approval by the Minister of Conservation.
- 114 See *Attorney-General v The Trustees of the Matiti Rohe Moana Trust* [2019] NZCA 532.
- 115 Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation Synthesis Report* (Environmental Defence Society, Auckland, December 2018) at 187.
- 116 Resource Management Act 1991, s 6(e).
- 117 For example, to set environmental limits, make trade-offs or allocate resources.
- 118 Indeed, this is proposed in the proposed NBA, cl 6.
- 119 *Ngāi Tai ki Tāmaki Tribal Trust v Minister of Conservation* [2018] NZSC 122.
- 120 On moves to prevent such proposals for wards being overturned, see Local Electoral (Māori Wards and Māori Constituencies) Amendment Bill 2021 (6-1).
- 121 For example, the idea of an Upper House of Parliament: see Claire Charters and others *He Puapua: Report of the Working Group on a Plan to Realise the UN Declaration on the Rights of Indigenous Peoples in Aotearoa New Zealand* (Te Puni Kōkiri, 1 November 2019).

- 122 Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010, s 22(1); see also Ngāti Tuwharetoa, Raukawa, and Te Arawa River Iwi Waikato River Act 2010, s 23(1).
- 123 Hauraki Gulf Marine Park Act 2000, s 16(2)(e).
- 124 Section 17.
- 125 Auckland Council “Co-Chairs to Lead Hauraki Gulf Forum” Our Auckland (media release, 14 May 2020) <<https://ourauckland.aucklandcouncil.govt.nz/news/2020/05/co-chairs-to-lead-hauraki-gulf-forum/>>
- 126 See Nigel Brady *Review of the Hauraki Gulf Forum* (Envirostrat Consulting Ltd, Wellington, 2015).
- 127 Paul Beverley, Vaughan Payne and Mark Maloney *Hauraki Gulf Forum governance review and recommendations* (report to the Hauraki Gulf Forum, 2016).
- 128 Instead, they interact and share power. The regional council nominates one member of the board. The vision and strategy is deemed to be part of the Waikato regional policy statement, and prevails over most instruments made in the RMA if they are inconsistent, as well as triggering reviews of resource consents. The document must also be given effect to under other legislation such as the Conservation Act.
- 129 On the rights conferred by customary marine title and protected customary rights, see Appendix 1.
- 130 See Robert Joseph and others “The Treaty, Tikanga Māori, Ecosystem-based Management, Mainstream Law and Power Sharing for Environmental Integrity in Aotearoa New Zealand – Possible Ways Forward” (Ko Ngā Moana Whakauka and Te Mata Hautū Taketake – the Māori and Indigenous Governance Centre, Waikato, 2019) in Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation – Working Paper 3* (Environmental Defence Society, Auckland, September 2018) at 27.
- 131 See Robert Joseph and others “The Treaty, Tikanga Māori, Ecosystem-based Management, Mainstream Law and Power Sharing for Environmental Integrity in Aotearoa New Zealand – Possible Ways Forward” (Ko Ngā Moana Whakauka and Te Mata Hautū Taketake – the Māori and Indigenous Governance Centre, Waikato, 2019) in Greg Severinsen and Raewyn Peart *Reform of the Resource Management System: The Next Generation – Working Paper 3* (Environmental Defence Society, Auckland, September 2018) at 33.
- 132 *Trans-Tasman Resources v Taranaki-Whanganui Conservation Board* [2021] NZSC 127 [SC].
- 133 Margaret Mutu and Moana Jackson *Whakaaro Here Whakaamu mō Aotearoa* (Matike Mai Aotearoa, Independent Iwi Working Group on Constitutional Transformation, January 2016)
- 134 *Trans-Tasman Resources v Taranaki-Whanganui Conservation Board* [2021] NZSC 127 [SC] at [154] and [162]-[172].
- 135 New Zealand Productivity Commission *Better urban planning: Final Report* (February 2017) at 51.
- 136 For example, an operational entity like Maritime New Zealand with a specific geographical focus (the oceans) and sectoral focus (shipping) might be complemented by policy entities like the Ministry of Transport with broader geographical concerns (transport across the whole of Aotearoa New Zealand).
- 137 The EPA is a particularly good illustration of the importance of looking at the system as a whole, because it is not clear what its structural position in the system is meant to be. Its roles have ebbed and flowed over its decade of existence. Is it a strong and independent environmental regulator for Aotearoa New Zealand, and a legitimate alternative to decision-making by regional councils or even ministers? Is it a specialist agency concerned with chemicals and large-scale deep-sea projects? Is it an administrative body that supports substantive decision making by others like boards of inquiry? Or is it an enforcement entity? An institution needs a broad identity – a place in the system – before its characteristics can be pinned down.
- 138 *Attorney-General v The Trustees of the Motiti Rohe Moana Trust* [2019] NZCA 532.
- 139 Resource Management Review Panel *New Directions for Resource Management in New Zealand* (2020), at 238.
- 140 Claire Charters and others *He Puapua: Report of the Working Group on a Plan to Realise the UN Declaration on the Rights of Indigenous Peoples in Aotearoa New Zealand* (Te Puni Kōkiri, 1 November 2019).
- 141 Fiordland (Te Moana o Atawhenua) Marine Management Act 2005, s 12; and Kaikōura (Te Tai o Marokura) Marine Management Act 2014, s 6.
- 142 See also Parliamentary Commissioner for the Environment *A review of the funding and prioritisation of environmental research in New Zealand* (Office of the Parliamentary Commissioner for the Environment, Wellington, December 2020).

13 Visions for the future



Ōrere Point, Auckland

13.1 Introduction

In previous chapters we have looked at various options for reforming the oceans management system according to a number of themes. Every system – including the current one – must make decisions about these themes in *some* way. A system needs to have a sound normative basis (the ethics, principles and objectives at its heart), structural features (legislation and institutions) and a toolkit (the actual interventions that seek to achieve its objectives).

It will therefore be important for policy makers to think, not just about which reforms are desirable (eg whether we merge the RMA and EEZ Act, create an Oceans Commission or amend the QMS), but also about how multiple changes might work together. That does not necessarily mean that everything about the current system needs to change. Many things might usefully be retained, and reforms could be quite targeted. But it

does mean that close attention needs to be paid to how new or different elements will interact. In particular, a system will need to be normatively consistent (for example, addressing tensions between a general direction to give effect to the Tiriti and deploy no-take marine protected areas), and procedurally coordinated (eg to plan where different activities like aquaculture can/should go relative to protected areas). It should be designed so that an effort to address one problem does not cause or exacerbate another.

However, it is not just norms, structures and tools that will need to work well together. Another particularly important cross-cutting element of a future system will be how *information* is created and used. This, alongside funding (see Chapter 8), can be regarded as a dynamic network that flows across the whole system (legislation, institutions and tools), giving it life and allowing its processes to operate effectively. Without information, the system does not work.

Raeewyn Peart



Fish packing plant, Leigh

13.2 Approaches to whole of system reform

Some of the options we have explored in this report could be pursued in isolation. For instance, significant benefits could come just from the integrated environmental research strategy described above. It would also be possible to create a new framework for marine spatial planning that would overlay existing frameworks and use existing tools (see Chapter 10), and for some that might address a number of problems (eg issues arising from the fragmentation of the current system). A number of more surgical changes might also work well *together* and be pursued as smaller packages. Indeed, that is already happening with a range of reforms to fisheries and the RMA (among others), but could be extended (for example) to focus on creating a more fit for purpose framework for MPAs. In short, people's appetite for reform might be limited to targeted interventions to "fix" what they see as being broken at the moment. There are indeed risks with throwing the baby out with the bathwater.

However, it is also worth thinking about what might result if we were to tackle the whole oceans management system at once. Some may see the deep issues with the status quo as requiring a transformation. Instead of making "changes" to the current system, we could work towards creating a new one by combining various building blocks. This would not require every single facet of the system to be different, but the very question changes the orientation of the reform process from one of amendment to one of replacement.

In the remainder of this chapter, we therefore outline four quite different starting points for what whole of system change might look like. They are designed to test how far people might be willing to go, and what broad directions they might want to go in. In short, these can be described as:

- (1) How we might build upon what we have now;
- (2) What deeper structural change might look like;
- (3) What features might be part of a system that recognises tino rangatiratanga; and
- (4) What a system based on legal personhood for nature might entail.

Characterising these as "starting points" or "approaches" is deliberate. While we are looking across the whole oceans management system as a single *concept*, we are not attempting to provide comprehensive or detailed "models" or off the shelf "blueprints" that could be used to

support drafting of legislation. Instead, we offer four quite different ways of approaching reform that could be developed further. As such, the four approaches described are quite different to each other, in terms of their focus, how they are described and their degree of detail. For instance, approach 1 is more focused on detailed changes (eg to the toolkit) because it is premised on working within most of the structures of the current system. Approaches 3 and 4 are more exploratory in nature, because they are looking at more foundational changes to norms and institutions as the starting point of reform. They do not necessarily assume that the detailed machinery of the current system will remain the same. That does not mean they require no nuts and bolts (eg resource consents, plans and property rights), only that those may be less important in giving a sense of what that approach is "about".

Indeed, all of the approaches have potential to overlap substantially (in that a tool or legislative design choice in one might also comfortably exist in another), and although we summarise their key features below, we do not seek to compare or evaluate every aspect of them at a granular level. Instead, we encourage readers to play around with them as one might clip Lego building blocks in and out.

It may well be that the "best" system is some kind of amalgamation of the key features of all the approaches described below, or something completely different. It might even be a careful transition from one approach to another over time. For example, there may be another model in which an enlarged tino rangatiratanga sphere is married up with some conferral of legal personhood, which could also embrace a toolkit containing marine spatial planning, an expanded NZCPS and an amended QMS alongside the creation of an umbrella Oceans Act. The less disruptive elements of approach 1 might even target some of the most urgent issues (eg regulations slowing habitat loss and climate change) and pave the way for deeper changes (eg some of the normative and institutional changes in approaches 2 and 3). Thinking of reform as a pathway rather than a single exercise is especially important given the potential cost and resourcing requirements (and consultation overload) in a system *already* facing significant change on a range of fronts.

Ultimately, we do not seek to resolve questions about which approach would be best (although we do identify some pros and cons of each to prompt discussion).¹ Instead, our intention is to keep the four approaches quite distinct to avoid a "race to the middle" or premature attempts to define an optimum system. For now, the idea is to expand the horizons of conversation, including discussing ideas that might seem radical to some. We therefore invite readers to consider which approach would,

in their view, best address the problems, challenges and opportunities articulated in Chapters 2, 3 and 4, and which provide starting points that best reflect their own mix of worldviews. In our view, all of them at least have the *potential* to improve things in the future, even though they may provide quite different framings through which that would happen.² And, of course, the devil will be in the detail.

We also note that we are anticipating a Phase 2 of this project that will select a single preferred way forward according to a carefully crafted set of criteria/objectives and problem definition. This will also consider how a preferred system could be implemented in a stepwise fashion over a number of years (to ensure the right things are tackled first, and to ensure a smooth and fair transition). We will also be considering the relative costs of potential reforms. We are seeking feedback on this report to shape our own views as to what a future system should look like. To that end, we are planning a series of workshops to discuss ideas with a wide range of stakeholders and to inform the next phase of the work (particularly in terms of what the objectives of reform should be). To support those discussions, we include a list of big picture questions at the end of this chapter. The approaches described below are by no means intended to signal which direction Phase 2 of the work will head in.

13.3 Approach 1: Building on what we have

In a nutshell

The basic starting premise of approach 1 is that the current system has much unrealised potential. This implies that it is possible to achieve better

outcomes without the upheavals associated with legislative, institutional or normative overhaul. The overall objective of the approach would ultimately be the same as others: to address the problems and challenges identified in Chapters 2 and 3 and to build a system that reflects modern values. But it would seek to do so with a relative minimum of fuss, and without fundamentally changing norms or objectives, other than those already contemplated by other reforms.

The basic ideas of sustainability, integrated management, species conservation, the principles of te Tiriti o Waitangi, environmental enhancement and efficiency would remain. Approach 1 would aim to reform the system so it actually lived up to those ideals (which it does not do at present), including through applying ecosystem-based management, developing a more strategic outlook focused on improvement to environmental indicators, and making any trade-offs clearer. It would recognise, at least conceptually, the need to have clear environmental limits or bottom lines beyond which trade-offs should not occur. And it would seek to improve integration within the system by linking together tools used under fragmented statutory frameworks (including through the use of a National Ocean Strategy and regional-level marine spatial planning). Fairness would be a stronger objective than currently, particularly with respect to how the value from using marine resources is distributed. Overall, the system would remain recognisable to those familiar with the current system, which would be part of the point. A summary of the approach can be seen in Figure 13.1. The key structural features of approach 1 are shown in Figure 13.2.



Auckland CBD

Theme	Key features of approach 1
Overall description	Refining the existing system and “maxing out” its toolkit without structural overhaul beyond what is currently envisaged through other reform processes. More change would happen to the toolkit than in other approaches, with the caveat that planned reforms already envisage significant structural change that would be reflected in the approach.
Legislative design	<p>The RMA would be replaced by the NBA, Strategic Planning Act and Climate Change Adaptation Act, as envisaged by the government’s resource management reforms.</p> <p>Most existing statutes would remain separate, such as the Fisheries Act, Wildlife Act (reimagined as a Protected and Threatened Species Act), Conservation Act and Marine Mammals Protection Act. The Biosecurity Act, Maritime Transport Act and MACA Act would also remain separate.</p> <p>The Marine Reserves Act would be replaced by a new more fit for purpose MPA Act, which would incorporate the protected areas aspects of bespoke legislation (eg for Fiordland, the Sugar Loaf Islands, Kaikoura and anticipated legislation for the Hauraki Gulf).</p> <p>The Continental Shelf Act would be largely merged into the Crown Minerals Act.</p> <p>The EEZ Act would be merged into the RMA/NBA.</p>
Norms (ethics, principles, objectives)	<p>Norms are largely the same as in the current system (and planned reforms).</p> <p>Te oranga o te taiao would be embraced as a common normative thread across multiple statutory frameworks, but would be defined with reference to specifically marine-focused principles (building on those in the NZCPS). Differences in purposes could still remain for existing statutes, reflecting that they would be there for quite different reasons.</p> <p>The norms underpinning particular tools like MPAs would be modernised and made sensitive to te Tiriti and expectations of mana whenua.</p> <p>Principles for allocation would be made clearer, including as to when compensation would be payable for lost rights or expectations.</p>
Institutional design	<p>There would be no overhaul of institutional settings, but there would be some significant changes around the edges.</p> <p>Existing government departments would remain in their current form, but the Oceans Secretariat (a collective grouping of a number of separate agencies) would be formalised in legislation. A Minister for Oceans would also be formalised in legislation.</p> <p>Central government would take on a more proactive role in preparation of marine plans under the RMA/NBA.</p> <p>The role of the Environment Court would expand, including to have merits decision-making powers over some fisheries decisions (eg some sustainability measures)</p> <p>A National Fisheries Advisory Council, already possible under the Fisheries Act, would be made mandatory.</p> <p>Regional councils would remain with their current boundaries (pending the outcome of the forthcoming local government review), and would have clearer responsibilities and duties to protect the marine environment (including with respect to the impacts of fishing).</p> <p>An independent Tikanga Commission would be established to provide advice rooted in tikanga and mātauranga Māori alongside the Parliamentary Commissioner for the Environment.</p> <p>A public interest quota holder would be established to operate within the QMS to buy quota and lease ACE based on public interest factors.</p> <p>The role of the EPA would be expanded to take on both marine consenting functions in the EEZ and regulation making functions under the RMA/NBA where needed to give effect to national direction.</p> <p>Guardians would be established for regional networks of MPAs.</p>

Theme	Key features of approach 1
The toolkit	<p>Approach 1 would embrace (and tailor) reforms to the toolkit planned through existing reform processes, including:</p> <ul style="list-style-type: none"> • Use of mandatory environmental limits under the NBA for particular domains (including marine elements). • Incorporation of revamped marine policies under the National Planning Framework, with gaps (eg for estuaries) filled. • Mandatory minimum standards for wastewater and stormwater discharges into the marine environment. • Mandatory targets for restoration of degraded marine habitats. • Regional spatial strategies with additional legal influence over marine frameworks beyond the NBA (including fishing and conservation). • Combined regional plans with planning committees including mana whenua and key marine agencies . • Regionally based fisheries plans. • Rules around discards and landings. • Rollout of cameras on boats. • More mixed species stock assessments. <p>A national level, statutory Oceans Strategy would be created under the auspices of the Strategic Planning Act.</p> <p>Marine spatial plans would be created under the Strategic Planning Act on a regional basis, using a different process and along different regional boundaries, to regional spatial strategies on land. They would have legal influence over other legal frameworks (the NBA, fishing and conservation legislation).</p> <p>A modernised and expanded NZCPS, included in the National Planning Framework, would have greater legal influence across other frameworks (including conservation and fishing).</p> <p>Under modernised conservation legislation, all indigenous marine species would be protected by default. Management measures would be triggered automatically by a worsening threat status.</p> <p>Conservation management plans and strategies would be developed in partnership with Māori and would be structured more like RMA-style plans. Population management plans would be recast as species recovery plans.</p> <p>Provision would be made for binding rāhui under the Fisheries Act.</p> <p>There would be a stronger ability for Fisheries New Zealand and the Department of Conservation to influence the content of NBA plans on land where there was impact on the marine environment.</p> <p>The role of the Harvest Strategy Standard in setting catch limits would be formalised under the Fisheries Act.</p> <p>A number of sustainability measures would be made mandatory under the Fisheries Act.</p> <p>There would be some public buyback of commercial quota, which could be retired or leased out to achieve broader social and environmental outcomes.</p> <p>Resource rentals would be rolled out on a mandatory basis.</p>

Figure 13.1: Key building blocks of approach 1

Feature 1: Already planned reforms would be tailored to the marine context

Approach 1 assumes that various measures proposed by government will proceed. That in itself would see some significant changes. For fisheries, it would include the continued development of regionally-based fisheries plans (eg including to implement aspects of the Seachange Tai Timu Tai Pari spatial plan in the Hauraki Gulf), changes to rules around discards and landings for fisheries, and the rollout of cameras on boats (with equitable sharing of cost). It would see further integration of mātauranga Māori into information gathering and decision-making processes, and continued moves towards mixed species stock assessment.

Another key element would be adopting the current resource management reform proposals stemming from the Randerson Panel's report. However, these would be moulded to fit the needs of the marine space. For example:

Purpose

- The purpose of the NBA would be transformed into one focused on *te ora* ngā o te taiao, a concept that includes the health of the moana. The purpose would explicitly identify the values that marine management under the Act would need to protect. This would be an opportunity to codify in primary legislation some of the most important norms underpinning the NZCPS.³ It would also change the orientation of the legislation from reactive management to the proactive pursuit of positive outcomes, including environmental restoration and synergistic forms of development/use relating to the marine environment specifically.⁴

Environmental limits

- A new legal category of environmental limits would be created, with which all people (users and regulators) must *comply*. These would have their own purpose, which would be protective and not allow balancing with other considerations. Limits expressed as policy (eg "avoidance") and regulatory bottom lines (standards or triggers for prohibited activities) would be mandatory for a variety of matters, and would be contained in a detailed schedule to the Act. They would include limits on land-based impacts on the marine environment. This would be a key mechanism to give regulatory teeth to strengthened NZCPS policies in the National Planning Framework. Because limits are uncompromising – they mean what they say – they would be a strong

legal driver for land use change in some catchments, and would not just affect marine activities.

- Environmental limits would be accompanied by a stronger ability for authorities to amend or extinguish existing use rights under the NBA, where necessary, to prevent limits being infringed. That is particularly important for activities on land that impact the sea (eg those generating sediment such as urban development and plantation forestry harvesting).
- Some limits might be spatially expressed (eg creating protected areas to "limit" impacts on biodiversity) or be focused on activities (eg prohibiting bottom contact fishing methods, freezing existing trawling and dredging footprints, or placing a formal moratorium on offshore petroleum exploration). For other activities (such as deep seabed mining), there might be a consenting process, but the activities could be deemed a non-complying activity (thereby creating a precautionary presumption against them).
- Alongside marine limits, targets for environmental enhancement would be mandatory under the NBA. That could include general targets for things like planting, reef restoration, the reduction of contaminants or biodiversity indicators (eg abundance of keystone species). Or they could include more specific marine policy goals around protected area coverage (eg 30 percent coverage by 2030, which could be achieved partly through protections under the NBA) or the phasing out of particular practices (eg bottom contact fishing methods like trawling). Where limits had already been overshot, there would be binding targets (and timeframes) for improvement to return to a safe space above limits.

National Planning Framework

- National direction under the NBA, in the form of an integrated National Planning Framework, would encompass the marine environment. This would subsume the NZCPS and link its revamped objectives and policies much more tightly to implementation mechanisms such as through national regulations (currently NESs) and stronger directions for councils.
- The National Planning Framework would make it explicit that there is a hierarchy of policies so that domain-based policies (such as for the marine area) could not be undermined by sector-specific policies (such as for forestry, aquaculture or urban development). A number

of existing components of national direction would (within the new National Planning Framework) get a facelift to better reflect the importance of the marine environment. Those would include the NES for Plantation Forestry, the NPS on Urban Development and the NPS for Renewable Electricity Generation.

- Inconsistencies between existing national policy statements would be addressed and gaps filled, such as the current policy lacuna for estuaries. Estuaries would be included as units within a much more detailed catchment-focused NPS for Freshwater Management (which would also be subsumed into a broader National Planning Framework), reflecting the need to manage this land-sea interface in a much more directive manner. Regulations and policy concerning offshore aquaculture and other emerging marine uses would be developed as would new regulatory provisions imposing limits on wastewater, stormwater and novel chemicals discharged into the marine environment.

In short, more integrated national direction in the form of a National Planning Framework, would enable policies in a revamped NZCPS to more directly influence other national level policies and standards that currently have unclear relationships and hierarchies. But the Framework would also more clearly articulate, subject to environmental protections, the benefits of various forms of marine activities, such as offshore wind generation, offshore aquaculture and sustainable tourism. It would highlight where synergistic outcomes would be possible and are to be encouraged.

Combined regional plans

- As suggested by the Randerson Panel, planning processes under the NBA would be different to those currently provided for under the RMA, including in the coastal marine area. In particular, joint planning committees would be charged with developing combined plans at a regional scale. These committees would include direct representation from mana whenua alongside regional and district councils and central government agencies. The Department of Conservation would be prominent in this process and would need to be funded accordingly. As in the Auckland Unitary Plan process, there would be a strong role for an expert independent hearings panel, which would need to include marine expertise (including conservation and fisheries). In line with the Act's focus on achieving positive outcomes, plans would be clearer and more directive about how change would be achieved (an action plan), not just how activities would be controlled to mitigate their adverse effects.

Regional spatial strategies

- There would be mandatory regional spatial strategies, created under a new Strategic Planning Act. These strategies would cover the coastal marine area within a region as well as land (as envisaged by the Panel). Both land and sea could be included in the same regional spatial strategy (although they may need to have different processes as outlined in Chapter 10). Alternatively, there could be separate marine spatial strategies which are progressed in parallel with terrestrial spatial strategies (and which could span multiple regions and have boundaries defined by marine ecological factors rather than just catchments).
- Regional spatial strategies would have legal influence over a number of marine statutes (which are not included in the current reforms) in addition to the NBA. Combined plans under the NBA (which would incorporate regional coastal plans) would have to "be consistent" with the more strategic and high level regional spatial strategies. But so too would fisheries plans and decisions on sustainability measures under the Fisheries Act. Spatial strategies would also have formal legal influence over decisions made under legislation for shipping (the Maritime Transport Act) and biosecurity (the Biosecurity Act), as well as statutes providing for spatial protection.⁵
- Spatial strategies would be future focused and action oriented. For example, they would outline where MPAs, AMAs and customary management tools (eg taiāpure and mātaītai) would be deployed over time, and how funding would be provided to support them. The strategies would essentially be action plans for how regulatory tools contained in separate legislation (including the NBA, Fisheries Act and conservation legislation) would be deployed at place, and enable multiple activities to be planned for in an integrated way. And they would not just be about environmental protection; they would provide clarity as to how different uses would operate synergistically over time in a defined space to achieve other forms of wellbeing.

Climate change adaptation

- A new statute for climate change adaptation, the Climate Change Adaptation Act, would be enacted. Although that would primarily deal with the difficult issues associated with managed retreat (eg insurance cover, an adaptation fund, and extinguishing existing use rights), it could also lay out any new tools necessary to transition marine activities towards a more resilient model (for example, to transition stationary aquaculture operations to mobile ones, or to subsidise restoration activities in areas particularly vulnerable to a changing climate).

- The Act would need to link closely to the regional spatial strategies prepared under the Strategic Planning Act, since many such measures would need to be expressed spatially. The law would also specifically require *marine* adaptation measures to be undertaken as part of a national adaptation plan and risk assessment, which could be achieved through provisions in the Climate Change Response Act.

Other matters

There are, no doubt, many other aspects of the Randerson Panel's report that could be mentioned here, and all should have the marine environment at their heart. However, other reform packages would progress as well, and would need to be coloured by marine concerns. For instance:

- The recently announced review of the Wildlife Act and conservation planning and concession processes would also have marine concerns at their heart. While it is too early to say what might come from this review, approach 1 would anticipate that all indigenous marine species would be protected by default with those able to be harvested specifically identified in a schedule to the Act; that active management measures would be triggered automatically by a worsening threat status (for those species for which such assessment was possible);⁶ that more protective measures would be applied to indigenous versus non-indigenous species; that te ao Māori and te Tiriti principles would be prominent; and that there would be a strong hierarchical relationship between new protected species legislation and the Fisheries Act.⁷
- Conservation management plans and strategies would be developed in partnership with Māori and would be structured more like RMA-style plans, with activity status linked closely to a hierarchy of policies and objectives.
- Work on climate change would extend carbon accounting to the marine environment, including accounting for the emissions produced from the destruction of biogenic marine habitats and the release of carbon from bottom contact fishing methods.
- On the flipside, there would be financial⁸ and regulatory⁹ incentives to undertake regenerative activities that would sequester carbon (eg habitat restoration and some forms of aquaculture like shellfish and seaweed farming). Irrespective of the specific mechanism, there would be a clearer legal link between emissions reduction plans under the Climate Change Response Act and marine focused legislation that would implement them (eg by decarbonising the fishing and shipping fleets under the Fisheries Act and Maritime Transport Act and dealing with the emissions implications of fishing methods and aquaculture).

Raewyn Peart



New Zealand sea lion pup, Otago Peninsula

Feature 2: There would be relatively modest change with respect to legislative design

In approach 1, changes to legislative arrangements would primarily represent the “new” status quo already envisaged in the Randerson Report and other planned reform programmes, through which (among other things) the RMA is replaced by the NBA, and the Strategic Planning Act and Climate Change Adaptation Act are promulgated.¹⁰ But the approach would not see widespread changes to how other marine legislation is configured.

Most significantly, the Fisheries Act would remain separate,¹¹ as would the successor to the Wildlife Act (which is likely to be renamed to reflect the importance of threatened and taonga species). Te Tiriti settlement legislation would remain separate, with its connections to other legislation maintained, as would the MACA Act. The Maritime Transport Act would continue to stand apart, with a basically unchanged interface with provisions currently in the EEZ Act (ie shared jurisdiction over marine pollution from ships and installations). And the Biosecurity Act would remain its own legislative sub-system, recognising the need to integrate the management of biosecurity threats across both land and sea (and the ability to achieve integration with other frameworks through institutions like regional councils and the wider functions of the Ministry for Primary Industries).

Beyond the Wildlife Act, further structural changes to conservation legislation would await more holistic assessment of how the conservation system – spanning land and sea – should operate in the future. The government has signalled that this deeper review is forthcoming.¹² Prior to the conclusion of that work, we would therefore still have a separate Marine Mammals Protection Act, Conservation Act and (revamped and renamed) Wildlife Act. In other words, conservation legislation (including its application to the moana) would remain fragmented across a number of statutes with links being made through an institutional mechanism: the Department of Conservation.

Consistent with the long-standing policy intent of government, new and separate legislation would be introduced to create a more nuanced suite of MPAs (for convenience, an “MPA Act”). This would have modernised normative foundations in its purpose and principles (including ones reflecting tikanga and ancestral Māori relationships with te moana, as well as the need to protect representative ecosystems and indigenous biodiversity). It would replace the fundamentally defective Marine Reserves Act but occupy roughly the same space in the system. It would therefore not be a large change from a legislative design perspective.

Over time, bespoke frameworks for the Hauraki Gulf, Fiordland and Kaikōura (and, perhaps, legislation for Rangitāhua/the Kermadec Islands, if process and other issues can be sorted out) could be integrated into this new statute to simplify the regulatory landscape for protected areas.¹³ MPA legislation would not necessarily upset the spatial protection tools already contained in other legislation (eg for fisheries, the protection of cables and pipelines, or resource management legislation). Instead, it would fill gaps by creating new and more flexible classes of protected areas (see Chapter 9).

It may be appropriate for this new MPA Act to set a formal timebound target for deploying protected areas: an MPA strategy. On the other hand, a strategic plan for the rollout of spatial protections (including using tools under other legislation like zoning rules under the NBA) could instead be provided for under the Strategic Planning Act (through regional spatial strategies). The latter option may be preferable as it would identify where different types of protected areas should go (not just those enabled by an MPA Act), and consider them in relation to other human activities like fishing, shipping, catchment-based pressures, land-based spatial protections (eg adjoining reserves) and aquaculture.

That said, providing for a rollout of protected areas under dedicated MPA legislation would have the advantage of doing so under a clear and uncompromising environmental purpose, rather than treating it as a negotiation between different interests seeking to use the same space (an ever-present risk in integrated marine spatial planning).¹⁴ In short, it would see MPAs (located on the basis of biophysical characteristics) as the backbone of spatial planning around which other activities would be arranged.

Whether a statutory MPA strategy would be created separately in an MPA Act, or be integrated in a regional spatial strategy, we leave as alternative options. Either way, this strategy would coordinate the use of different kinds of MPAs (including those under an MPA Act and spatial protections and supporting tools under other frameworks like the Fisheries Act and NBA) to ensure the protections work well together, and to minimise complexity and overlap. In practice, not all of these tools may be needed in every place. Each network of protected areas would be supported by a guardians model similar to those in Kaikōura and Fiordland.

Some smaller scale legislative rearrangements would occur in approach 1 as well, partly to “tidy up” and simplify the statute book. The Continental Shelf Act would be subsumed primarily within the Crown Minerals Act. The Fisheries Act 1983 – now little more than a shell – would be repealed, with

any necessary amendments being made to the Fisheries Act 1996. It may be possible to incorporate the Submarine Cables and Pipeline Protection Act into the NBA (some provisions are conceptually similar to those preventing interference with designations already familiar to the RMA) or new MPA legislation (recognising potential synergies between pipeline protection and protection of benthic habitats around them).¹⁵

Going further, however, approach 1 would see the NBA merged with the EEZ Act, reflecting the ultimately artificial geographical boundary between these statutes from an ecological perspective. Any distinctions (such as different status and requirements of international law) could still be recognised within one statute having the same basic purpose and principles. But the basic new features of the NBA, such as environmental limits, targets and a mandatory national planning framework, would apply (with any necessary alterations) to the EEZ as well. The latter would therefore become a more robust and proactive management framework, rather than the somewhat skeletal, reactive (consenting-based) and policy-devoid framework we have today. In particular, inclusion of the EEZ within a mandatory suite of national direction (the National Planning Framework) would fill the significant gap in the Act: the lack of an EEZ policy statement.

Feature 3: Institutional arrangements would evolve rather than be replaced

Some change would occur to institutional arrangements, but familiar institutions would remain and their basic responsibilities and jurisdictions would not fundamentally change. However, some settings would be clarified and strengthened. For example:

- Regional councils would have a clearer statutory mandate to map and protect marine habitats, including from fishing pressures, thereby resolving some uncertainties left by the Court of Appeal in the *Motiti* decision.¹⁶ Mapping would be necessary to fulfil the stronger purpose of a new NBA and its obligation to impose mandatory environmental limits in the marine space. It would occur in collaboration with Fisheries New Zealand (to ensure that habitats of importance to fisheries are identified), the Department of Conservation and potentially others. Central government funding would be required to support the mapping exercise.
- Where a coastal system is divided by different regional council boundaries, the timing of the preparation of combined plans would be synchronised, so that combined plans impacting on a single marine system are considered together or at least over a similar time frame.
- Central government would have a much stronger and more proactive role in planning in the coastal marine area, not just in approving plans. This would be through close involvement of relevant agencies in the development of combined plans under the NBA, and a mandatory auditing role for the Ministry for the Environment and Department of Conservation prior to plan notification. The Ministry for the Environment would have a more proactive planning role in the EEZ (which would essentially become another “region” for the purposes of an NBA that would incorporate the EEZ Act).
- A national-level Māori advisory panel – a Tikanga Commission – would be established to provide advice to both central and local government across all marine statutes. This body, along with an expanded Parliamentary Commissioner for the Environment, would be charged with evaluating the performance of central and local government in terms of compliance with te Tiriti o Waitangi, defence of limits, and progress towards meeting mandatory targets for environmental enhancement. A Tikanga Commission would recognise that even though legislation is fragmented (for fisheries, resource management, protected areas, customary marine title), a te ao Māori and mātauranga perspective can provide a thread of normative consistency with the same institution(s) advising across multiple acts.
- The Parliamentary Commissioner for the Environment and Tikanga Commission would have stronger powers to propose measures that would *have* to be considered by the government (eg the establishment of MPAs under MPA legislation and measures like product stewardship schemes under the Waste Minimisation Act). The government could be required to give reasons as to why such things were *not* done, reversing the orthodox presumption and embracing the precautionary principle.
- A National Fisheries Advisory Council (already possible under the Fisheries Act) would be established to provide independent advice to the Minister. Its creation would be made mandatory. It could evolve over time and eventually be subsumed within a more thoroughly independent Parliamentary Commissioner for the Environment or Oceans Commission.
- The EPA would be given a firmer mandate with respect to its roles in the marine environment, including greater involvement in planning and regulatory decision-making under the NBA. It would regain its function as an independent consenting body in the EEZ. Another sub-option in the coastal marine area would be for the EPA to be

responsible for implementing the regulatory provisions necessary to implement the NZCPS components of the new National Planning Framework, shifting this “implementation” function away from regional councils in the coastal marine area (and instead leaving them to determine only those matters within the regional community of interest). The logic here would be that central policy should be implemented by a central agency, and could mean that the EPA had the power to create certain regulatory provisions directly within combined regional plans or influence councils to do so. Irrespective of that choice, the EPA would be the regulation making body in the EEZ (to implement policy created by the Minister) and would be strengthened in terms of resourcing.

- Responsibility for three waters services (or at least two of them: drinking water and wastewater) would be shifted from councils to new arm’s length water entities,¹⁷ leading to economies of scale, concentrations of expertise, and the socialisation of costs that would improve the infrastructure that can prevent harmful impacts of discharges to the marine environment (eg wastewater overflows and diffuse stormwater runoff). These entities would not just be operational; they would also become independent advocates for the whole water cycle (such as protection of the ocean as a drinking water source via desalination, and keeping catchments clean to minimise impacts on estuaries).
- Taumata Arowai (the new national water regulator) would take on the role of setting minimum regulatory standards for wastewater and stormwater discharges into the marine environment, and these would be incorporated into the National Planning Framework.
- A behavioural insights group would be formally instituted within government, and provide advice on how behavioural tools and incentives (including economic instruments) could influence people’s interactions with the moana using human psychology rather than regulatory tools.

At the central government level, existing departmental boundaries would not fundamentally change. The Ministry for Primary Industries (and its business units, such as Fisheries New Zealand) would retain their existing functions, as would the Ministry for the Environment, Ministry of Transport and Ministry of Business, Innovation and Employment. The Department of Conservation would remain as well, but would have a formal statutory division created within it to ensure a focus on (and advocacy for) the needs of the moana specifically. Budgetary apportionments between

investment in land and sea would be made clearer, including via a national environmental research strategy (with marine components).

However, the current integrated ministerial portfolio for oceans and fisheries would be formalised in legislation, as would the cross-departmental Oceans Secretariat (the purpose of which would be to ensure that coordinated advice¹⁸ was provided to the Minister of Oceans and Fisheries, and to provide a permanent forum for inter-agency cooperation). The Secretariat would coordinate central government participation in marine spatial planning under the Strategic Planning Act alongside councils and mana whenua. Councils and central government agencies would be obliged to give effect to the plan created (and there would be legal connections to budgeting decisions under the Local Government Act and Public Finance Act).

Feature 4: Improved connections would be made across the toolkit

While some structural features would evolve, the key changes in approach 1 focus on the better use of existing frameworks and tools, particularly through improving inter-statutory connections and normative consistency.

At the highest level, connections would be improved by providing for an overarching, formal National Oceans Strategy applying to the whole marine area. This could build upon the non-statutory vision already produced by government but would be more specific and structured. It would be mandatory, incorporate te ao Māori values and recognise the te Tiriti partnership. It would also have a clear legal status and ongoing influence over multiple other “implementation” statutes.¹⁹ This would shift the vision away from being a political manifesto for reform towards being a strategic document woven into the fabric of the system (a constitution of sorts for the oceans). For example, it would have strong influence over things as diverse as:

- urban planning under the NBA (eg to create an urban form that minimises runoff to the marine environment by adopting nature based filtration solutions like wetlands and rain gardens);
- building standards under the Building Act (to minimise the impact of building materials, such as those incorporating heavy metals, on the sea);
- tools under the Waste Minimisation Act (to ensure stewardship of products that pollute the marine environment);

- infrastructure design under the Local Government Act (eg diverting some stormwater into wastewater systems).

Aside from the creation of national and regional strategies, other measures would be put in place to clarify the relationships between statutes. For instance:

- The NBA and Fisheries Act would both clarify that measures to protect marine biodiversity and habitat from fishing activities are mandatory under *both* frameworks. This would recognise that the orientation and purpose of each act is different even though there is overlap in subject matter.²⁰ This would go further than the Court of Appeal in the *Motiti* decision, in recognising that councils *must* discharge such functions rather than merely having the jurisdiction to do so. There would also be safeguards around any transfer of jurisdiction from councils. For example, a strengthened EPA or marine unit within the Department of Conservation could be geared up to take on such NBA planning jurisdiction where delegated.
- With the jurisdiction of the NBA to manage fishing activity for broader biodiversity reasons clarified, customary marine title holders under the MACA Act would have a strengthened ability to influence fishing activities indirectly (through their influence on the content of combined regional plans). That might even extend to spatial exclusions

implemented through the NBA – protected areas of sorts – as well as restrictions on the use of particular gear or methods.

- The Department of Conservation under a new MPA Act would have the mandate to impose limits on land-based pollutants in catchments and coastal environments impacting on the values of protected areas. It would do so through the review of combined plans.²¹
- There would be a strengthened ability for decision-makers under the Fisheries Act to influence some regulation and policy made under the NBA. This could be in terms of policies and rules for managing sedimentation harming fish stocks (particularly benthic species) and habitats necessary for stock health. For example, the Ministry for Primary Industries could be charged with developing environmental limits under the NBA on catchment-sourced sediment and other contaminants necessary to protect fish stocks and nursery grounds.
- The National Planning Framework would operate directly in the EEZ (by virtue of the EEZ Act being combined with the NBA)²² and would also be given more direct legal weight in *other* legislation – notably conservation legislation, waste minimisation legislation, the Biosecurity Act and the Fisheries Act. It would, for example, have policies and objectives directly addressing the environmental impacts of fishing,

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Talley's fisheries plant, Nelson

waste (especially plastic) and biosecurity threats on marine biodiversity and habitats (including protected species), and require decisions and tools under those other frameworks to be consistent with them. Essentially, this would mean that national policy under the NBA would perform a more integrating policy role across resource management, conservation, waste and fishing frameworks, not dissimilar to how a regional policy statement performs an integrating policy role across regional and district council functions under the RMA.²³

There would be more normative consistency between the purposes and principles of different pieces of legislation under approach 1. That could include multiple statutes adopting common principles at their heart, like *te oranga/mana o te moana* (building on the ideas behind *te mana o te wai* and *te oranga o te taiao*). However, the NBA would also include a distinct second purpose relating to the prevention of or limits to pollution (including marine pollution), reflecting the dual purpose of the current EEZ Act and the need to comply with international commitments.

A common set of principles would also be created (potentially through the National Planning Framework), outlining when it would be appropriate for powers to be transferred to *mana whenua* under multiple pieces of legislation, including the NBA, Fisheries Act and conservation legislation. While this transfer of powers would not be about “ownership” or “title”, it would be closer to the spirit of the MACA Act (providing more certainty and predictability as to when and what powers are shared). In the RMA context, that would essentially put a policy framing around when powers should be transferred from councils to Māori under section 33.

Under approach 1 there would be greater clarity around when compensation would be forthcoming for any impacts of regulatory restrictions on existing property rights, resolving a key uncertainty in the current system about the relationship between property rights under the QMS and public interest restrictions under the Fisheries Act, RMA and bespoke conservation legislation (eg for protected areas). This would create a reasonably high bar, reflecting the similar approach in the RMA for land use (eg compensation could be forthcoming when rights were incapable of reasonable use or where there was a derogation of grant). Alongside principles relating to compensation, there would be principles about what assistance (eg subsidies, buyback of outdated gear, investment in research) would be provided to help industry transition over time where it was needed to meet environmental limits or desired outcomes.

Aside from the need for tools to be better connected to each other, approach 1 would also make more pointed changes to the toolkit.

Other tools under the NBA

- AMAs would be reinstated (and include *te Tiriti* settlement areas). These would be planned through broader marine spatial planning processes, reflecting a more proactive and strategic approach to using marine space. Aquaculture would be better accommodated within AMAs by softening the test for allowable impacts on fishing activity, and providing for more flexibility for occupation rights (to encourage mobile operations).
- A nationally consistent attribute-weighted tendering process for occupation of marine space (including by aquaculture operations) would be instituted, building in an expectation that any proposals for using areas that are not privately owned will enhance the environment and social wellbeing and not just be awarded to the highest offer in monetary terms.

Conservation and climate

- Population management plans would be reconfigured under the Marine Mammals Protection Act and revamped Wildlife Act. In the first instance, they would be renamed “species recovery plans”, to reflect their true purpose. Aside from updating the legal provisions around the development and content of the plans themselves, the legislation would provide for their creation to be triggered automatically by negative changes in the status of protected species. The plans would directly create fisheries sustainability measures to reduce mortality (such as gear and spatial exclusions) rather than requiring a separate decision by the Minister of Fisheries under the Fisheries Act. Such plans would be decided by the Minister of Conservation, based on best ecological evidence, rather than through a balancing of different interests (eg its impact on quota owners or fishers).
- Sanctuaries under the Marine Mammals Protection Act and Wildlife Act would be deployed in the service of a broader marine spatial strategy, and these would be integrated with the deployment of other protected areas (to be given regulatory teeth under a new MPA Act).
- Blue carbon would be integrated into the accounting framework of the Climate Change Response Act, potentially through the emissions trading scheme. That would include liability for greenhouse gas emissions from seabed disturbance (if modelling made that feasible) and the carbon benefits of restoration (including protected areas).

Fisheries tools

- Fisheries plans would be made mandatory, strategic and place-based (as is being progressed in the Hauraki Gulf). They would have wide public participation in their development, and be developed in partnership with mana whenua. There would be merits appeal rights to the Environment Court on these plans, allowing a broader range of evidence (including mātauranga Māori) to be formally tested. Fisheries plans would have to give effect to a broader NZCPS (within the new National Planning Framework). A national Fisheries Policy Statement would be mandatory, to inform place-based fisheries plans alongside national direction under the NBA.
- In the same spirit, the Harvest Strategy Standard (and its concepts of limits) would be formalised in the Fisheries Act as a mandatory guide to setting catch limits. There would also be statutory provision for the development of other fisheries policies. The concept of MSY in the Fisheries Act would be softened to refer to harvest “targets” that are broader in purpose, including retention of a higher proportion of biomass where needed to achieve the range of outcomes contemplated in the Act (ie “conserving, using, enhancing and developing fisheries resources to enable people to provide for their social, economic, and cultural wellbeing”).²⁴
- The QMS would remain, but there would be buyback of some quota by the Crown on a willing buyer-willing seller basis (excluding settlement quota). Buyback quota could either be retired, or wielded by a new and arm’s length “public quota holder” which would lease out ACE based on environmental and social considerations (eg which fishers would produce the best public interest outcomes). This would reflect the idea that the Crown is already a significant holder of property on land, where it is actively used for the public benefit rather than just awaiting privatisation, and the marine context is not necessarily different.
- There would be a more agile process for changing quota management area boundaries to reflect biophysical characteristics, habitats, biological stocks and the impacts of climate change, as well as more fine-grained units within them to manage the risks of local depletion in coastal areas.
- Aggregation limits for quota would be strengthened. Licensed fish receiver locations would be dispersed around the country to support coastal communities, particularly those with limited economic opportunities.
- Some sustainability measures would become mandatory under the Fisheries Act, reflecting the similar approach to environmental limits under the NBA. Sustainability measures and limits would be exercised for different purposes under the different acts, so the more stringent controls would apply to marine activities.²⁵ Under the Fisheries Act, controls would still be focused on management of healthy stocks, including the protecting nursery grounds and other important fish habitats. It would be made clear that quota rights were *contingent* upon meeting these conditions (in the same way that interests in real estate on land are subject to covenants), recognising that property rights come with associated responsibilities.
- There would be clearer principles around when the imposition of rāhui by mana whenua would be translated into an enforceable fisheries closure. The onus could be reversed, so that a closure was presumed in the event of a rāhui being laid down, unless good reason could be shown to do otherwise.
- Recreational fishing would remain subject to different kinds of controls (eg bag limits rather than a hard overall cap), but fishers would need to report their catch to allow closer monitoring of the recreational catch and to inform future decisions.
- There would be clearer principles in the Fisheries Act to guide the Minister when setting proportional catches for commercial and recreational fishing (ie where to set the TACC relative to the TAC for one or more shared stocks).

Funding, information and incentives

- A sliding scale of resource rentals would be gradually introduced for the use of marine resources, including taking marine life, sand and minerals and occupation of coastal space. A portion would be returned to mana whenua, with the balance hypothecated into research and other measures to protect the marine environment, providing a secure and independent source of funding to support marine management for relevant institutions like the Parliamentary Commissioner for the Environment, a new Tikanga Commission, regional councils, and the marine focused unit of the Department of Conservation. This could be separate to research levies, which are imposed for different (albeit overlapping) reasons.

- Financial assistance would be provided to emerging industries with potential to make more efficient use of the marine space and improve environmental outcomes, such as some forms of seaweed and shellfish farming and eco-tourism. There would be a framework whereby cost-benefit analysis of such investments would give significant weight to the ecological interests of nature and future generations.
- A national level, integrated database for marine environmental information, monitoring results and research would be created, with all agencies sharing information with each other and the public through a common digital platform. This would become a trusted source of wide-ranging information about habitats, biodiversity, and pressures from which multiple statutory processes would be expected to draw (“best available information”), including for fisheries decision-making. Expert evidence accepted in court proceedings would be integrated into this.
- A public messaging campaign about the importance of the marine space and threats to it would be instituted, embedding this in the public consciousness in the same way as climate change. Non-regulatory tools (behavioural nudges and economic instruments) would be deployed in a more strategic way at a national level, driven by the behavioural insights group mentioned earlier.

There are many other specific interventions that could be used in this approach to improve the toolkit, and we invite readers to add to the list above (or subtract from it). In particular, it may be that the development of a marine spatial planning framework could provide significant benefits if spatial plans had meaningful legal influence over other statutes, even without the further changes outlined above (and this could be one “simpler” sub-option to consider).



Raewyn Peart

Dolphin viewing vessel, Bay of Islands

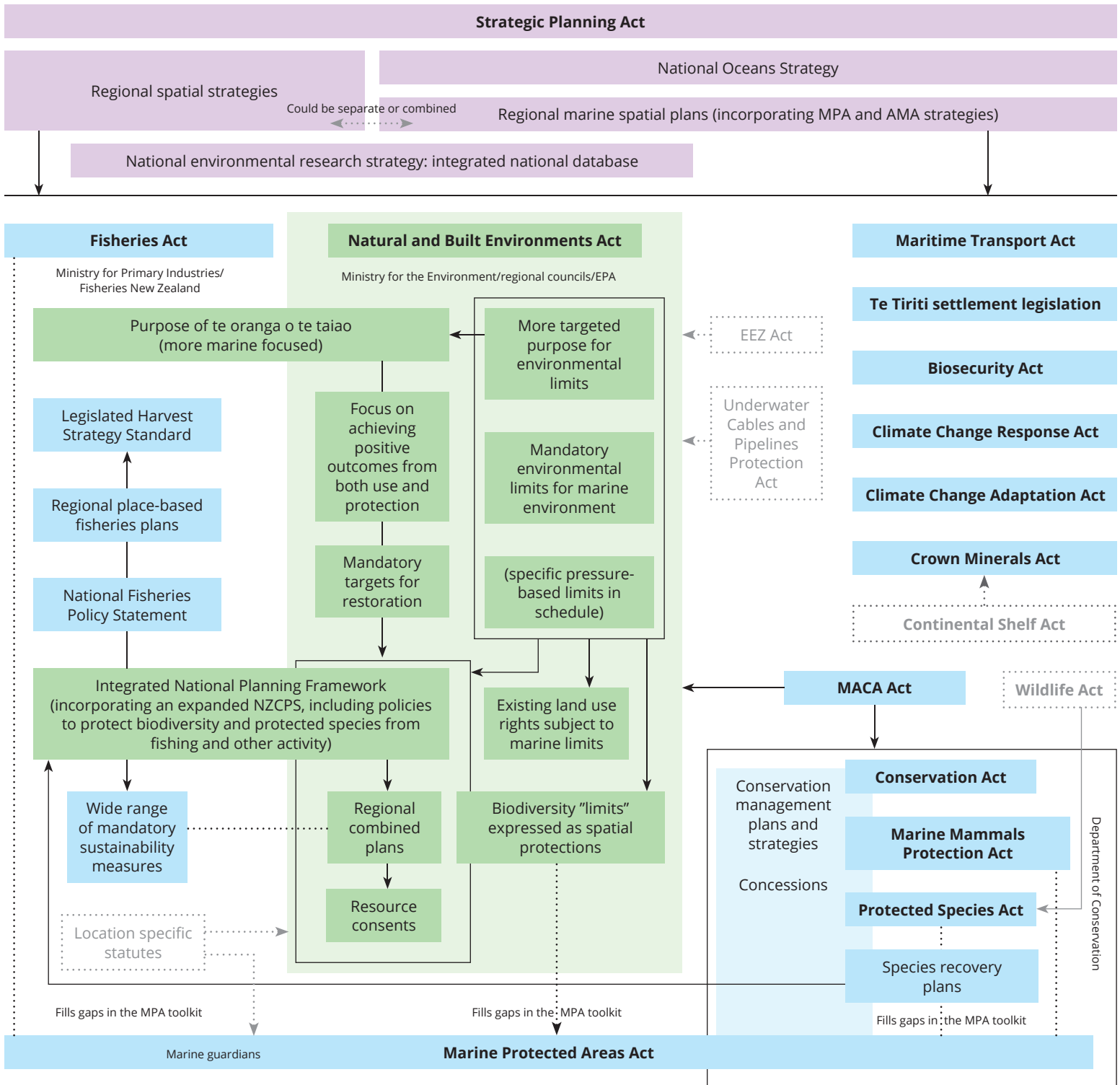


Figure 13.2: Key structural features of approach 1

Brief assessment of approach 1

Below, we consider the potential benefits and downsides of approach 1. We invite readers to consider whether the pros would outweigh the cons.

Some potential benefits of approach 1	Some potential downsides of approach 1
Changes could be staggered and targeted, without the need for overhaul of entire legislative frameworks.	It arguably does not tackle the root cause of systemic problems, notably the fragmentation across multiple legislative frameworks.
The approach piggybacks on, and makes more targeted, many of the changes already envisaged for the resource management system.	There is no fundamental normative reimagining of the system, such as one based on te ao Māori or ecocentrism.
A focus on strong environmental limits, a national oceans strategy and regional marine spatial planning would provide more certainty for users (including to prevent the impacts of landbased activities on marine sectors like aquaculture and fishing) as well as establish clear bottom lines to prevent cumulative harm.	Additional complexity is added to the system, by creating a new layer of marine spatial planning and a National Oceans Policy.
The system would become more future-focused through the use of mandatory targets and consideration of where beneficial/synergistic uses of the marine environment can go (eg offshore wind energy, offshore aquaculture).	Specific environmental limits might be hard to set and measure in an information-poor environment, and would raise difficult issues about how to “claw back” existing rights where limits have been overshot.
The retention of a separate Fisheries Act would avoid the difficulties associated with merging it with a quite different management framework.	Regional councils may struggle to discharge significantly larger responsibilities to map and protect the coastal marine environment.
Boundaries and gaps between legislation would be clarified and filled, with some rationalisation of statutes.	Some uncertainty may result from expanding the role of the EPA in regulation-making vis a vis regional councils.
New MPA legislation would allow a more culturally sensitive approach to spatial protections in the toolkit.	It is unclear whether formalising the Oceans Secretariat through legislation would make much difference in practice.
Connections between different statutes and their tools would be strengthened in a way that would minimise cost and disruption, and retain key case law.	Some may object to the use of compensation or financial assistance to transition away from environmentally harmful practices.
Property rights would not be extinguished, avoiding the practical and ethical difficulties of extinguishing them.	Some may argue that the approach does not have a clear enough normative vision or objective for the future.

Figure 13.3: Brief assessment of approach 1

13.4 Approach 2: Redesigning the structural features of the system

In a nutshell

Whereas approach 1 is about building on what we already have, approach 2 is transformational in a structural sense. In particular, it would be highly integrative in legislative design terms, and get to the heart of the many issues caused by the fragmentation and complexity of oceans management across multiple statutes, processes and institutions. It would be a different, more far reaching way to address the problems and challenges described in Chapters 2 and 3. Again, we invite readers to

consider whether this framework would provide a *better* springboard to do so than others.

Its centrepiece would be a new “Oceans Act”, which would subsume a number of existing acts (or the marine parts of them). It would also involve some fundamental shifts in terms of the toolbox and institutional design. Essentially, it begs the question: if we were to go further than the more targeted changes in approach 1, what could that look like? While the focus here is on deeper structural change, a number of the changes to the toolkit envisaged in approach 1 could also potentially be deployed. A summary of the approach’s key features can be seen in Figure 13.3 with the key structural elements of the approach depicted in Figure 13.4.

Theme	Key features of approach 2
Overall description	Deeper structural change. The main focus of the approach would be on changing statutory boundaries, reinventing institutions, and undertaking deeper changes to the toolkit.
Legislative design	A single Oceans Act would be created, which would apply on the seaward side of mean high water springs.
	Most existing statutes with marine components (or relevant parts of them) would be integrated into an Oceans Act, including the RMA, Fisheries Act, Biosecurity Act, Maritime Transport Act, Wildlife Act, Marine Mammals Protection Act, EEZ Act, Marine Reserves Act (albeit heavily amended and modernised), Undersea Cables and Pipelines Protection Act, Territorial Sea, Contiguous Zone and Exclusive Economic Zone Act, and bespoke marine legislation (eg for Fiordland, the Sugar Loaf Islands, Kaikōura, the Hauraki Gulf). The “terrestrial” components of legislation (eg the RMA, Biosecurity Act and Wildlife Act) would remain separate.
	The MACA Act and te Tiriti settlement legislation would remain separate.
	Relevant parts of the Continental Shelf Act would be integrated into the Crown Minerals Act and the Oceans Act.
Norms (ethics, principles, objectives)	Norms would build upon what we already have, but would be made more consistent across frameworks (eg for fishing and resource management). There would be no large scale normative shift, and worldviews would remain pluralistic.
	A more modern purpose statement would underpin a new Oceans Act, tailored to the marine context (there are various options). There could be multiple purposes existing in a hierarchy (building on the concept of te mana o te wai).
	There would be a single/consistent expression of te Tiriti or its principles in the Oceans Act.
	There would be a consistent set of allocative principles across all marine resources.
Institutional design	There would be significant institutional change.
	Regional councils would no longer have jurisdiction over the coastal marine area. Instead, jurisdiction would be conferred on semi-autonomous regional branches of a single Oceans Agency (a Crown entity). Regional councils would retain jurisdiction over catchments and coastal land. The Oceans Agency would audit regional plans to ensure their consistency with oceans policy.

Theme	Key features of approach 2
Institutional design <i>(continued)</i>	An Oceans Agency would be co-governed, via appointments of members to its governance authority by mana whenua. Some regional representatives would be appointed by regional councils, safeguarding aspects of local democracy and making links between land and sea.
	An Oceans Agency would have a strong statutory mandate focused on the health or oranga/manā of the moana. It would receive hypothecated funding to discharge its core functions, removing reliance on politically determined budgeting decisions.
	An Oceans Agency would have consenting functions in the coastal marine area and EEZ, as well as regulation making functions to give effect to national policy, and operational functions currently held by the Department of Conservation, Maritime New Zealand and Fisheries New Zealand. There would be joint jurisdiction with the Department of Conservation for matters that crossed the land-sea boundary.
	A single Ministry for Oceans would be established as a policy advisory entity to a formally established Minister for Oceans. The Ministry would integrate existing relevant advisory functions of Fisheries New Zealand, the Ministry for the Environment, Department of Conservation, Ministry for Primary Industries and Ministry of Transport.
	An independent Oceans Commission would be established (including a Tikanga Commission or Tikanga Commissioner) and would play a similar structured advisory and watchdog role as the Climate Change Commission.
	An Environmental Defender's Office would be created and granted standing and resourcing to undertake public interest litigation for various marine matters under the Oceans Act.
The toolkit	Many of the more granular tools in approach 1 could be deployed in approach 2.
	Mandatory marine spatial planning would be provided for in an Oceans Act and exist at the top of the planning hierarchy. Greater clarity would be provided as to where different forms of development could go and where they would be encouraged for public interest (eg desalination, offshore wind).
	Clear statutory links would be made between marine spatial plans and other mandatory tools such as a national planning framework for oceans (ie national direction), place-based fisheries plans and regional marine plans.
	Regional marine plans would integrate many forms of planning, including under RMA/NBA, fisheries, shipping, biosecurity and conservation.
	The concept of mandatory environmental limits would be expanded, from being confined to the NBA, to applying to all things managed under the Oceans Act including fishing and conservation.
	A common set of allocative principles would be included in the Oceans Act, providing more certainty as to why rights/value should be given to some over others. Attribute weighted tendering would be more proactively provided for within spatial allocations provided for in a marine spatial plan.
	Mandatory legislated targets would be provided for, including for the rollout of MPAs over defined timeframes
	Regional plans on land would be strictly subject to the Oceans Act (ensuring that marine limits would not be infringed by land-based pressures).

Theme	Key features of approach 2
The toolkit (continued)	Over time, the QMS <i>might</i> be replaced (or partially replaced) by a permit-based system under the Oceans Act, treating commercial fishing as an activity more like others under the NBA. That could occur through the gradual and willing buyback of some quota.
	Recreational fishers would be required to be licensed, with fees used to fund the activities of an Oceans Agency and Oceans Commission.
	Resource rentals would be charged on a principled and predictable basis across all forms of marine resource use, with a proportion returned to mana whenua for use as kaitiaki.

Figure 13.4: Key building blocks of approach 2

Feature 1: A new integrated Oceans Act would be created

In a purely regulatory sense, a new Oceans Act (see Chapter 11) would “apply” to activities on the seaward side of mean high water springs. The RMA (or its replacement, the NBA) would be split geographically at this point, along the same line that currently exists between the land use functions of territorial authorities and regional council coastal marine area functions under the RMA. The EEZ Act would be subsumed into the Oceans Act as well, and the purposes and principles of the two former statutes would be modernised and (in the case of the RMA) tailored to the marine context. It could be built around a concept like *te mana o te moana*, or have dual purposes like the EEZ Act (some version of sustainability alongside the prevention of marine pollution). It would incorporate some of the principles at the heart of the NZCPS.

The Fisheries Act would also be included in an integrated Oceans Act. Other legislation would be merged into it as well, such as the Maritime Transport Act, Marine Reserves Act, Marine Mammals Protection Act, Undersea Cables and Pipelines Protection Act, and special legislation for the territorial sea and contiguous zone.²⁶ Bespoke place-based marine legislation (eg for Kaikōura, Fiordland and the Hauraki Gulf) would be integrated, and modernised where necessary, with their regional overlays retained through inclusion in schedules to the Act.

The Biosecurity Act would be split as well; marine biosecurity (management of vectors such as ships, as well as management of pests once established) would come under the auspices of an Oceans Act. Terrestrial biosecurity threats would be dealt with under the Biosecurity Act. Similarly, aspects of the Wildlife Act would be transferred to the Oceans Act (eg protections for marine species and wildlife sanctuaries in the marine space) and made fit for purpose in the context of a climate and indigenous biodiversity crisis.²⁷ While the Crown Minerals Act would remain separate, it would subsume most provisions of the Continental Shelf Act.²⁸

Te Tiriti settlement legislation and the MACA Act would also remain separate from an Oceans Act, with cross-references carefully made to a new legislative landscape. The logic here is ultimately pragmatic. While it may happen in the future (and it may be another sub-option to consider), opening up discussion about the foreshore and seabed and questioning the complex, intensive and now well-underway process of recognising customary marine title and protected customary rights for the sake of legislative integration risks delaying or complicating a broader reform effort (a lesson learned in previous attempts at marine reform). Instead, processes under the MACA Act would be better resourced and customary marine title would be better linked to decisions made under frameworks for fishing and waste minimisation.

There would be no need for a separate marine spatial planning piece of legislation, as a spatial planning process (and a national oceans strategy) could be subsumed within an integrated Oceans Act. In the same way, there would be no need for separate MPA legislation. The ability to make clear vertical intra-statutory links (all the way from high-level strategy through to bespoke tools) for the whole marine space would be the approach’s strength. However, marine strategy and spatial planning would need close procedural and institutional links to the spatial planning process on land, which would remain under the separate Strategic Planning Act envisaged by the Randerson Panel. Linking such processes across the land-sea boundary, and in the coastal zone especially, would be an important challenge to meet.

Feature 2: There would be significant institutional change

Alongside legislative change, there would be significant institutional change in approach 2 (see Chapter 12). Regional councils would no longer have jurisdiction over the coastal marine area. Instead, semi-autonomous regional branches of a national marine regulator would be established, with inter-regional boundaries reflecting not just catchments but also

the bio-geographical characteristics of the marine environment and the role of iwi/hapū. As far as practicable, there would be alignment between revised fisheries management areas and these regions, to form broader marine management units.

This new oceans regulator, which could be called an Oceans Agency, would be tasked with managing the entire marine area (including the coastal marine area, EEZ and extended continental shelf) under the new Oceans Act. It would have a co-governance structure at the national board level, and also potentially at a regional level (where regional governance boards would provide oversight, not unlike the conservation board and Fish and Game regional structures), although the details of that would need to be worked through very carefully.

An Oceans Agency would be robustly independent from both central and local political influence (in the nature of an autonomous Crown entity, if meaningful co-governance arrangements could be achieved through this mechanism) and would need to develop a high degree of public credibility. The Agency could have regional offices, with provision for councils, mana whenua, the Crown and an Oceans Commission to appoint advisors. There would be different options for how a national-regional split within the agency could be achieved (eg regional boards having specified functions) and this requires more detailed exploration. In any case, members of the regulator at national and regional levels would need to be suitably qualified experts.

The Oceans Agency would have a clear statutory mandate (more so than the current EPA)²⁹ and would need to be properly resourced. It would have a secure, hypothecated funding stream secured by statute (eg through charges on consents and marine resource rentals), not at the discretion of Ministers through appropriations of general funds. (Alternatively, an Oceans Unit could be created within a strengthened EPA, particularly if the latter were to grow into a more expansive role as an environmental regulator and enforcement agency on land (eg under the NBA)).

Ministers would continue to set marine environmental policy under an Oceans Act. This would be done through a national oceans planning framework (which would subsume an expanded NZCPS, and integrate policies concerning the impacts of and opportunities for fishing, shipping and other activities). In some ways, this planning framework would be much broader than that contained under the proposed NBA, given the number of other statutes to be integrated (including for maritime transport, fishing and biosecurity). It would encompass the kinds of provisions currently in RMA national direction, the fisheries Harvest

Strategy Standard, pest management strategies and conservation general policy.³⁰ However it would also fill important gaps, such as the current lack of a national fisheries environmental policy, maritime transport policy and biosecurity policy.

A national policy framework for the sea would need to give effect to the environmental limits and outcomes specified much more clearly in a new Oceans Act itself. Having a single Act would allow for the cross-cutting concept of limits to span things traditionally thought about in silos: bottom lines under the NZCPS, catch limits and other sustainability measures under the Fisheries Act, and biodiversity limits (which often need to be expressed spatially) through multiple types of protected areas. Similarly, it would allow cross-cutting outcomes to be pursued in more integrated ways, such as fairness in the allocation of resources (the Act could have a common set of allocation principles), efficiency in the use of marine space (through marine spatial planning) and increasing resilience to climate change across multiple sectors (eg eco-tourism, aquaculture, fishing). The Act would include limits and outcomes that reflected mātauranga Māori. It would also require targets to be set for environmental enhancement and restoration. Mandatory and timebound targets would include the deployment of MPAs with the express purpose of safeguarding biodiversity. High level targets for coverage could even be established in the Act itself.

Within the policy framing set by Ministers, an Oceans Agency would then be responsible for setting regional policies and regulatory controls through mandatory regional³¹ marine plans and assessing consent applications. There would be transparent criteria for devolving some functions to mana whenua to exercise in accordance with tikanga – a more proactive, directive and wide ranging mechanism than under section 33 of the RMA. Appeal rights to the Environment Court would exist for regulatory decisions (in both the coastal marine area and EEZ), but generally speaking public participatory opportunities would be focused at the higher levels of decision-making (strategy and planning) rather than on individual consents.

The Oceans Act and an Oceans Agency would have jurisdiction over activities occurring below mean high water springs (ie those actually in the marine environment). Regional councils would retain jurisdiction, subject to national level mandatory environmental limits, for making plans and consenting decisions on land (including within catchments and the coastal environment). However, an Oceans Agency would have strong powers to influence land-based impacts on the marine environment in that council planning and consenting decisions could not be inconsistent with marine plans (including regional level policies) created by the Oceans Agency.

The Agency would also be responsible for auditing regional plans (including plan changes) on land prior to public notification, thereby ensuring that marine environmental outcomes drive what happens there. No longer could slow burn land use impacts like sedimentation undermine the values of protected areas such as marine reserves or valuable fishing nursery grounds. In other words, the Agency would have a close oversight role when it came to the performance of local government, something that has been missing under the RMA in a variety of contexts (eg ensuring that national direction is adequately implemented by councils).

An Oceans Agency would also take on the operational role of the Department of Conservation in the marine space (both the coastal marine area and EEZ), including research and responsibility for MPAs and protected species. It would be charged with implementing a strategy to deploy MPAs, and the Minister for Oceans would be required to create such a strategy to achieve the targets required under the Act. This strategy would form part of the wider strategic framing for oceans in the national planning framework mentioned earlier. The Oceans Agency and Department of Conservation would have joint responsibility for conservation issues that spanned the land-sea boundary, such as for some marine mammals, seabirds, shorebirds and species that cross the fresh-saltwater boundary to spawn.

The Oceans Agency would take on the marine operational roles of Maritime New Zealand under the Maritime Transport Act, the Ministry for Primary Industries (Biosecurity New Zealand) under the Biosecurity Act and Fisheries New Zealand under the Fisheries Act, corresponding to the functions merged into an Oceans Act. Being arms-length from government, it would also be well placed to conduct and commission broader scientific and social science research to inform oceans management in the long term, including with a mātauranga lens, rather than being at the beck and call of short-term ministerial direction or industry priorities. It would be an independent regulatory, operational and scientific body which would not be concerned with supporting or advocating for those it regulates.³²

The Oceans Agency would not have a direct ministerial advisory role, however. This would be performed by a new Ministry for Oceans, which would subsume the marine policy elements of the Ministry for the Environment, Department of Conservation, Ministry for Primary Industries and potentially the Ministry of Transport. The new ministry would be created by statute, like the Ministry for the Environment and Department of Conservation.

While an arm's length Oceans Agency would not have a policy advisory role, it would take on more regulatory functions that have hitherto been the preserve of government departments. For example, departments would advise on policy for marine environmental protection and fisheries, and Ministers would make such decisions, but the actual translation of policy into regulation, and its application on the ground would be done by an Oceans Agency with close oversight by an Oceans Commission (see further below). Regulatory decisions could even include the specific delineation of MPAs and establishment of controls within them, restrictions on activities currently managed under the RMA, and setting sustainability measures like catch limits and controls on fishing locations and methods currently undertaken under the Fisheries Act. However, Ministers could retain decision-making power over value-based allocative decisions (eg the setting of a commercial catch limit vis a vis allocation to recreational and customary take). It may be that determining the location of protected areas and values to be protected would be left to ministers in partnership with mana whenua, with the Oceans Agency tasked with translating those decisions into regulatory provisions. It may depend on how value-based such decisions are seen to be.

One option would be for councils to retain *some* jurisdiction to establish environmental controls in the inshore coastal marine area that were *more* stringent than those set by the Oceans Agency (recognising that communities still have significant interests in inshore environments, especially where they connect to land-based features), but these would not be able to weaken those set by the Oceans Agency and would not be relied upon as the default or comprehensive mechanism by which oceans were managed and protected.

An Oceans Agency could have a strong advocacy role, including a clear statutory mandate to engage in processes under separate legislation having an impact on the marine environment (including climate change, waste minimisation, offshore mineral exploration and non-marine conservation legislation). As mentioned above, it would have secure core funding to allow it to discharge this function, which it would take on from the Department of Conservation. Alternatively – and perhaps more appropriately – an advocacy role could be consciously separated from a regulatory role by giving the former to other entities (eg the Parliamentary Commissioner for the Environment or a new Oceans Commission). A separate Oceans Commission would have other benefits than an independent advocacy role – for example, it could (like the Climate Change Commission) be charged with providing an independent stream of expert advice to government, and reviewing or auditing the performance of the Ministry of Oceans and the Oceans Agency. Performance would be measured against statutory metrics as well as compliance with te Tiriti o Waitangi, and could see

the Commission issue various public entities with triennial report cards evaluating their progress and recommending any remedial action. It could be a standing body that assesses the adequacy of proposed regulation and policy, similar to how ad hoc boards of inquiry make recommendations on proposed national direction under the RMA. An Oceans Commission would need to have expertise in tikanga and have the confidence of mana whenua, who could be responsible (through some national level vehicle) for appointing one or more commissioners who would be well placed to channel the concerns and tikanga of local Māori with mana moana.

Feature 3: Changes to the toolkit would complement legislative and institutional change

While structural change would be its overriding concern, approach 2 would also see significant changes made to the toolkit. Marine environmental limits would be mandatory under the Oceans Act (see Chapter 8), and the legislation would specify what these needed to cover and what they would aim to achieve (this would be more specific than the general direction under the proposed NBA).³³ Comprehensive policy – a national oceans policy or strategy – would need to be created by Ministers, which would expand upon and modernise the NZCPS as well as extend it to the boundaries of the EEZ and extended continental shelf. It would better reflect tikanga than the similar policy instruments we have now.

This policy would be required to include a no-nonsense approach to land-based stressors like sedimentation, chemicals and wastewater, and have strong legal influence over instruments and decisions on land use made by councils under the NBA (eg it would need to be “implemented” or “complied with”) as well as restrictions imposed under legislation like the Waste Minimisation Act. Overall, the system would reflect the idea that public authorities, including central government, should be obliged by law to deploy tools in the toolkit to actively achieve statutory goals rather than having them available to use if and when the trade-offs become politically palatable.

As mentioned earlier, more integrated national level policy under an Oceans Act would be implemented by the Oceans Agency through mandatory regional marine plans with much wider scope than existing regional coastal plans.³⁴ Provision for MPAs (see Chapter 9) and other protective conservation measures would be integrated into these plans, rather than through separate statutes. As such, the Marine Reserves Act and Marine Mammals Protection Act would be repealed and no new protected area legislation would be needed. The current conceptual distinction between protected areas in the coastal marine area (where marine reserves can be created) and the EEZ (where they cannot) would be removed, because regional plans would be created across both spaces.

Under approach 2, MPAs would therefore more closely resemble the active deployment of Significant Natural Areas under the RMA, rather than the separate “fixed” conservation estate that exists on land and is managed under separate conservation laws (eg the National Parks Act). In other words, the difference between “conservation” and “resource management” in the oceans would break down. This would provide an opportunity for more integrated management in a way that is sensitive to tikanga (providing for some use and some protection, but ultimately fostering the relationship between people and nature).

In terms of fishing, environmental limits (ie current sustainability measures) would become mandatory not just for things like catch limits but also for habitat protection and fishing methods having impacts on broader biodiversity (see Chapter 8). No distinction or boundary would be made between types of activities given the integrated nature of an Oceans Act, just as the RMA does not fundamentally distinguish between different industries on land. It is effects based. In other words, “sustainability measures” for fishing would not be a fundamentally separate tool.

One farther-reaching sub-option *might* be that the QMS could, over time, be undone and allocation rights decided on a different footing. If that were to be entertained, it would have to be done in a way that was acceptable to and co-designed with Māori, given the full and final settlement of fisheries claims. This element might therefore be better described as a process to be established with the consent of mana whenua rather than an inalienable feature of the approach itself. It could, if such consent could be obtained, see the Crown buy back existing quota and replace the market-based model with a permitting system (see Chapter 8). This warrants consideration as a sub-option, but is by no means a core part of the approach. It is not necessarily the case that an alternative to the QMS would produce better outcomes (environmental or otherwise), especially if regulatory tools (eg sustainability measures) surrounding the QMS were strengthened. Instead, the less intrusive measures in approach 1 (partial buy back and retirement of quota, or operation of a public quota holder within the market) could be deployed.

A catch limit would remain, but would be set for realigned ecosystem-based fishing management areas according to more eco-centric principles (including mātauranga Māori and the broader RMA-style principles around intrinsic value underpinning the Oceans Act).³⁵ Permits – whether they were to replace all quota rights or whether they were simply the mechanism by which publicly held quota were leased out³⁶ – would be issued based on a range of considerations (including environmental impacts and socio-economic factors). They would allow the fishing of

multiple stocks often caught together. These rights would not be granted in perpetuity and could be revoked for non-compliance with conditions. Permits would be closely tied to, and subject to, any controls (including spatial controls) established under the Oceans Act for environmental reasons, essentially integrating a permitting system for fishing with the planning and consenting approach familiar to the RMA.

Regional marine plans would integrate fisheries plan components, but these would be firmly linked to the broader policy framing of the plan.³⁷ While it may be impractical to provide for merits appeals with respect to fishing permits, there could be provision for a new public interest litigator (a statutory Environmental Defender's Office, or the Oceans Commission itself) to have standing to appeal to the Environment Court where it deems the purpose of the Oceans Act has not been met by a decision of the Oceans Agency.

A proportion of fishing permits in this new (or partially new) system could be set aside for Māori, and/or a proportion of resource rentals reserved for Māori (of a value proportionate to the previously held quota). Recreational fishers would also be required to be licensed (with revenue hypothecated to fund an Oceans Agency and Commission), and their catch would need to be landed and reported. Commercial operators of recreational fishing – such as those operating charter boats – would require commercial permits. Customary fishing settings, including taiapure and mātaītai reserves, would remain unchanged. At a strategic level, there would be a shift away from commercial fishing and towards ecologically sustainable offshore (and mobile) aquaculture. This could be facilitated through the buyback and retirement of commercial quota and parallel incentives for offshore aquaculture, or there could be a mechanism by which commercial fishing rights could be traded for equivalent aquaculture rights.

Other allocative issues would be resolved more proactively. Mandatory tendering processes would be established for the allocation of coastal marine space, within the broad parameters outlined in marine spatial plans (which would be done through collaborative processes closely involving the Oceans Agency, with a co-governance structure). Suitable space for aquaculture would be identified in those spatial plans, with rights allocated to Māori in accordance with the aquaculture settlement. Resource rentals for use of a common resource would also be required, although there could be rebates granted for ecologically beneficial activities (and rentals would not apply to those exercising protected customary rights or holding customary marine title). A set proportion of resource rentals could be returned to Māori to facilitate their kaitiaki responsibilities or regulatory functions recognised under the Oceans Act.

Feature 4: Careful normative change would occur

The normative core of an Oceans Act would need to be thought through carefully. It would need to be more focused on the oceans than the RMA and reflect a modern partnership approach to te Tiriti o Waitangi. It should give voice to the hitherto silent purpose of the Maritime Transport Act, and the defective normative foundations of the Marine Reserves Act. But it would subsume so many different pieces of legislation, that its purpose would be wide ranging and multifaceted. Because of that, it would be most sensible for the Act to have multiple purposes,³⁸ but existing in a clear hierarchy; while integrated management in the marine space is important, we manage that space for a variety of reasons and a purpose needs to reflect a hierarchy of values. Environmental wellbeing, the intrinsic value of the oceans and their taonga, and te oranga o te moana would be at the top (building on the concept of te mana o te wai in the NPS for Freshwater Management).

Finally, robust research, monitoring and evaluation should be reflected in funding requirements and structured, time-series environmental reporting on the health of the marine environment. Indicators or trigger points will need to be set in advance to drive action, either through the deployment of tools under the Oceans Act, or through a review of the system itself. The system would need to be self-evaluative and self-correcting. There are a number of options for *who* would be responsible for information and evaluation. One would be that an independent Oceans Commission is charged with evaluating the performance of the system and actors within it (and making recommendations to an Oceans Ministry for any policy changes), but research, monitoring and information is managed by a well-resourced Oceans Agency (as the on the ground agency with practical resources and expertise). Alternatively, the Oceans Ministry (and Minister) could, as the more “accountable” entity, host or compile information and research and link it to a broader system of environmental reporting run through the Ministry for the Environment.³⁹

Alongside the more substantial changes in approach 2, many of the more surgical reforms described in approach 1 could also be implemented.

Brief assessment of approach 2

Approach 2 and its focus on deeper structural change to legislation and institutions has a number of potential pros and cons (again, depending on one's perspective). Ultimately, it aims to address the same issues as other approaches, but does so by focusing on the benefits of structural change and tackling the issues associated with fragmentation in the current system. Some benefits and downsides of the approach might include the following.

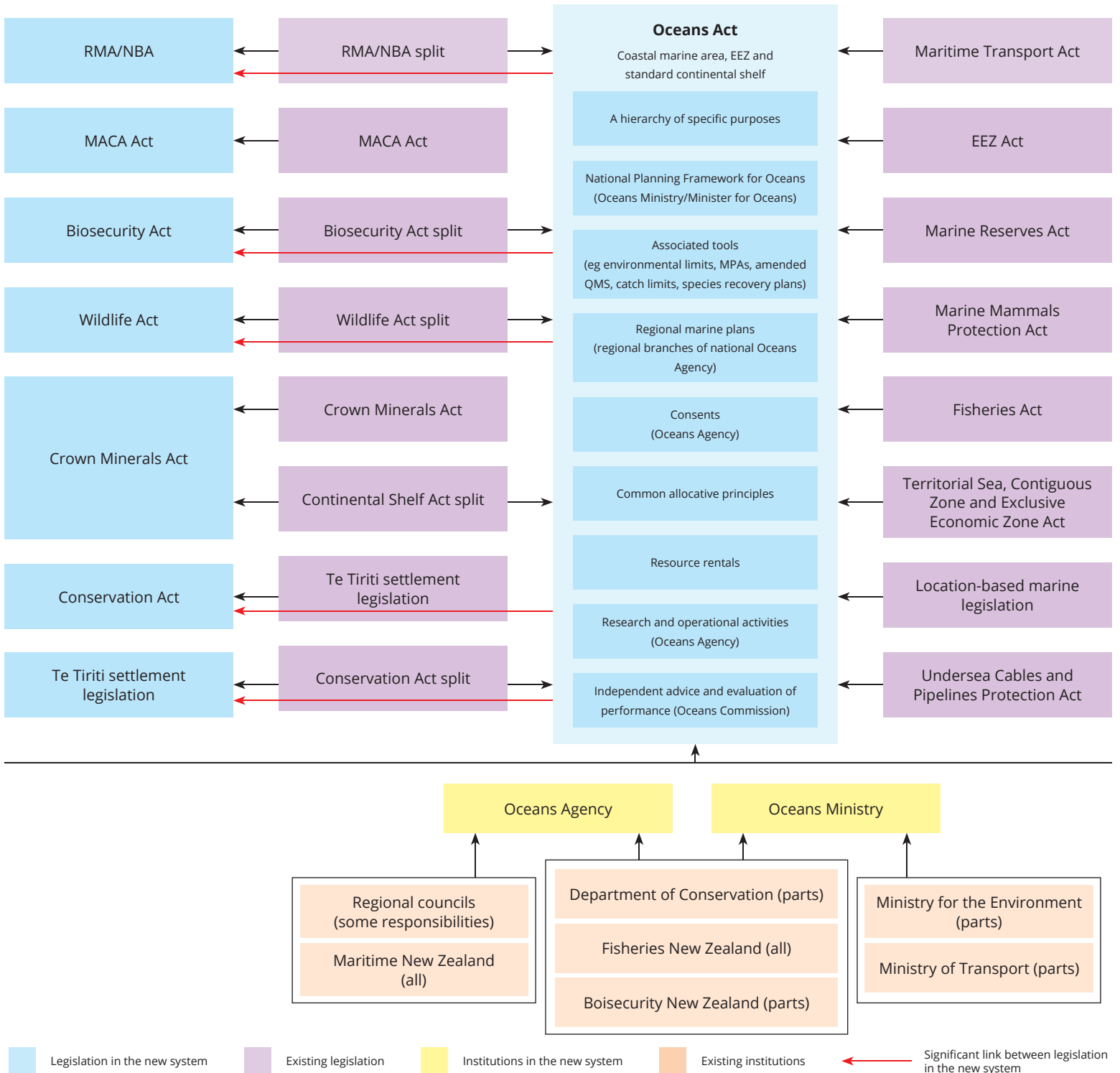


Figure 13.5: Key structural features of approach 2

Some potential benefits of approach 2	Some potential downsides of approach 2
Significant statutory integration could serve to better implement ecosystem-based management for the marine space, busting management silos characterising the current system.	Legislative integration in one domain has risks of fragmentation across others, especially where connections are needed across the land-sea divide (as for mobile species like shorebirds and mobile pollutants such as sediment).
An Oceans Act could provide a statutory home for a National Oceans Strategy and regional spatial planning.	It may create unnecessary disruptive statutory change when integrated tools could be equally housed under the proposed Strategic Planning Act.
Clearer links between tools would be possible under a single statutory framework.	The purpose of an integrated Oceans Act might not be targeted enough, as it will need to encompass many different facets of management.
A dedicated marine management focus could be achieved by locating most marine functions within an Oceans Agency, potentially making it more effective.	Additional complexity could be created by having marine management regions that look different to regions on land, and which may not correspond to fisheries management areas.
An Oceans Agency could have dedicated funding arrangements, making it less susceptible to the funding swings of departmental budgetary cycles.	An arm's length Oceans Agency with regulatory powers may lack the accountability to communities that regional councils/Ministers have and undermine local level working partnerships with mana whenua.
Some may see benefits in having regulatory powers exercised by an arm's length entity like an Oceans Agency, rather than government departments or councils, to avoid politicisation of decisions.	As in the context of climate change, it may be sufficient to have an independent Commission to oversee government, provide an alternative stream of advice, and hold it to account rather than also transferring regulatory powers to an arm's length Oceans Agency.
A single policy and regulatory framework could better integrate protection of the marine environment, the deployment of MPAs, the pursuit of sustainable development and the regulation of fishing.	An Oceans Agency with a broad mandate under an Oceans Act risks losing the conservation focus of bodies like the Department of Conservation.
There would be a clearer sense of how and why various powers would be held/shared with mana whenua across the moana.	It is unclear the extent to which wholesale integration of "operational" institutions (eg Maritime New Zealand) would provide efficiencies or better outcomes.
A permit-based approach to commercial fishing (wholly or partly replacing the QMS) might have benefits in more tightly tying rights to environmental responsibilities, allowing judicial oversight of key decisions and in changing incentives (eg resistance to regulation) that arguably arise from a rights-based system. It could also, arguably, allow for a fairer redistribution of some of the value that comes from marine resources.	Tampering with the QMS may prove extremely difficult in practice, risks undermining Te Tiriti settlements and the benefits of a property rights approach (eg efficiency and security of tenure), and would require significant compensation for loss of rights as well as raising issues of natural justice. It is not necessarily clear that a wholesale replacement of the QMS by a permitting system would provide better environmental or social outcomes than a refined QMS.
Stronger marine-focused institutions (eg an Oceans Ministry, Agency and Commission) could have a more powerful voice when it comes to addressing land-based activities having marine impacts, and this would enable a more holistic and ecosystem based view of the moana.	A single Oceans Ministry risks having a broad and vague mandate and losing the more focused and independent streams of advice from different departments concerned with (for example) fisheries, species conservation, transport and resource management.

Some potential benefits of approach 2	Some potential downsides of approach 2
Separating policy from regulatory functions might depoliticise difficult decision-making (in that it can be easier to create general policy than translate it to actual regulatory restrictions). ⁴⁰	There are potential risks in separating policy-making functions (in an Oceans Ministry) from regulatory functions (in an Oceans Agency), as close links are often needed to ensure the latter achieves the former.
Combining regulatory (and enforcement) and operational functions within an Oceans Agency could create efficiencies (eg knowledge, capability, resources such as boats and monitoring equipment).	There are potential risks in combining regulatory and operational functions in a single arm's length entity (an Oceans Agency), such as the potential problem of the fox guarding the henhouse. ⁴¹
Separating marine management (in an Oceans Agency) and catchment management (regional councils) could depoliticise some of the decisions currently made on land that have impacts on the marine environment.	Separating marine management from catchment management responsibilities could risk an adversarial rather than cooperative relationship between an Oceans Agency and regional councils, and undermine management of the land-sea divide (especially estuaries).
The arbitrary geographical line between coastal marine area and EEZ would be removed.	Deep structural change would be expensive and disruptive more generally.

Figure 13.6: Brief assessment of approach 2



Raewyn Peart

Kayaker, Ōrere Point

13.5 Approach 3: Enlarging the rangatiratanga sphere

In a nutshell

Approach 3 is premised on the idea that the oceans management system has two core spheres – kāwanatanga (governorship by the Crown) and rangatiratanga (Māori sovereignty).⁴² These can overlap (giving rise to a third sphere – see Figure 13.7), in that:⁴³

[the] Rangatiratanga sphere reflects Māori governance over people and places. The Kāwanatanga sphere represents Crown governance. There is a large ‘joint sphere’, in which Māori and the Crown share governance over issues of mutual concern.

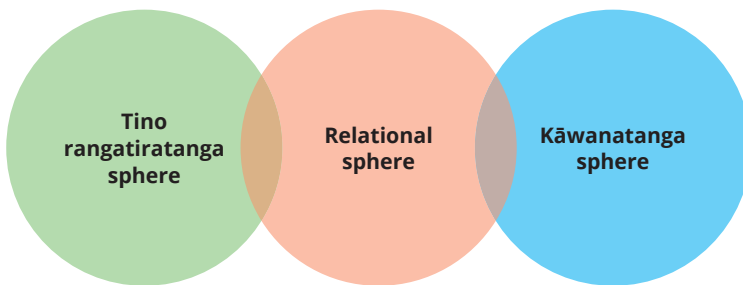


Figure 13.7: The relationship between different spheres of power/governance

Three key things would define approach 3 (see discussion in Chapter 4). First, the rangatiratanga sphere would grow relative to the kāwanatanga sphere. Secondly, there would be more overlap between the spheres in the “relational” component. Thirdly, the kāwanatanga sphere would remain open to interactions with the relational and rangatiratanga spheres. This is where some elements of the existing system may need to accommodate more than one source of authority. For convenience, one might call this a “tino rangatiratanga” approach. Its key features can be seen in Figure 13.8.



Ahipara



Pou, Tāpapakanga regional park

Theme	Key features of approach 3
Overall description	Embracing tino rangatiratanga. The key shifts here would be with respect to institutional design (eg co-governance) and norms (reflecting te ao Māori), but additional reforms suggested in other approaches (eg to the toolkit and legislative boundaries) would also be possible and potentially consistent as long as a rangatiratanga lens was put over them.
Legislative design	<p>Legislative redesign is not the key driver of approach 3, and many options (including from other approaches, such as an Oceans Act) could be possible.</p> <p>A constitutionally significant piece of overarching legislation would be created to embed the partnership between Crown and mana whenua in law, including in the marine context.</p> <p>Legislative silos would be broken down, including by removing the arbitrary jurisdictional boundary between the RMA and EEZ Act and between fragmented pieces of conservation legislation.</p> <p>The MACA Act and te Tiriti settlement legislation would remain separate.</p>
Norms (ethics, principles, objectives)	<p>A key normative driver in approach 3 is more parity between Māori and Crown governance spheres. At its core would be a recognition of tino rangatiratanga rather than the principles of te Tiriti per se, but that would not exclude other norms (eg sustainability, resilience, ecocentrism, efficiency).</p> <p>At least parts of the system (those in the tino rangatiratanga and relational spheres) would be guided primarily by substantive norms at the heart of te ao Māori, such as whānaungatanga, wairuatanga, mana, tapu, noa, koha, utu, manaakitanga, aroha, mauri, hau and kaitiakitanga.</p> <p>A significant normative element would be the implementation of UNDRIP, which would go beyond the principles of te Tiriti o Waitangi.</p> <p>Ultimately the approach is less about what the normative substance of the system is (its principles) and more about by whom and how that gets decided.</p>
Institutional design	<p>Various specific institutional changes could be possible (including those in approaches 1 and 2), as long as they reflected a strong approach to co-governance.</p> <p>Deep constitutional level changes could be made (which would go well beyond the marine context), such as separate or hybrid parliamentary structures (eg an Upper House to scrutinise bills).</p> <p>Separate Māori institutions could be created as another layer of regulation-making or consenting authorities operating through a tikanga lens (eg transforming advisory bodies like the Māori Advisory Committee under the EEZ Act into a body that assesses compliance of applications or decisions with te Tiriti).</p> <p>Co-governance arrangements could be rolled out across multiple existing institutions (including Crown entities), reflecting the model of the Waikato River Authority. Operational entities could be recast as co-management entities (eg through decisions about staffing of institutions like local marine guardians who could be responsible for management of MPAs within a particular rohe moana).</p>

Theme	Key features of approach 3
Institutional design (continued)	A Tikanga Commission could be established as an independent national advisory body to the Crown (and agencies) and councils, which could assess their performance against te Tiriti obligations.
	A Tikanga Commission could be reimagined as a form of national level representative body for mana whenua, which could be conferred some policy or regulatory powers currently held by the Crown.
	Māori wards could be made mandatory for regional councils.
The toolkit	Many of the more granular tools in approach 1 could be deployed in approach 3.
	There would be transparent triggers for power sharing or transfer of powers to mana whenua.
	MPAs would be rolled out in a culturally sensitive manner (continuing/enhancing ancestral connection through use) and subject to co-management.
	Sign off would be required from mana whenua (eg a national level executive body/Tikanga Commission) on any national level strategy/policy.
	Co-management agreements/mana whakahono a rohe under the RMA/NBA would be extended to cover a broader range of legislation and non-statutory decision-making,
	Sustainable and independent funding (eg a portion of resource rentals/koha for use of marine resources) would be apportioned to mana whenua in their role as kaitiaki or to fund work of a Tikanga Commission.
	Formal and legally binding rāhui would be provided, not just for fisheries, but also for other activities including under the NBA where a breach of limits is threatened.
	There would be express recognition of the importance of matauranga Maori as an input across all decision-making processes.

Figure 13.8: Key building blocks of approach 3

Feature 1: An enlarged sphere for tino rangatiratanga and te ao Māori norms

Ultimately, what an enlarged sphere for rangatiratanga looks like must be determined by Māori. We therefore offer some initial thoughts about what some features of this system could look like rather than seeking to describe its mechanics in detail (and many of the more detailed features described in approach 1 and elsewhere in the report may also be compatible with this approach). Even more so than other approaches, it is intended as a conversation starter and not a ready-made model. First, we outline the underlying normative basis of the approach, then we explore some of the key design features that *might* flow from that.

At a fundamental level, tino rangatiratanga challenges the notion that the Crown (or even a Western-style Parliament) is the sole source of authority over all peoples, in all circumstances. It suggests that the constitution of Aotearoa New Zealand is more complex and nuanced than that inherited from colonial days, and encourages a more direct reading of te Tiriti o Waitangi as a founding document that is not reliant on the evolution of case law in Western style courts. Much of the judicial interpretation of the Treaty/Tiriti focuses on its principles, which some Māori scholars argue takes away from the text itself.⁴⁴ The principles can serve to downplay the importance and significance of tino rangatiratanga authority and perpetrate the idea of immutable Crown sovereignty and authority.⁴⁵ That arguably does not reflect the bargain made where kāwanatanga was granted in exchange for



Waka, Napier

the protection of tino rangatiratanga. The approach therefore is based on an underlying negotiation between two sources of power and authority.

Tino rangatiratanga is not alien to our legal and political system. It is constitutionally imprinted in Aotearoa New Zealand's founding document te Tiriti o Waitangi (see Chapters 3 and 4).⁴⁶ Te Tiriti and its principles have been incorporated into the Treaty of Waitangi Act 1975 and infused throughout certain statutes. Its legal status has been developed through case law. It is also supported by international indigenous jurisprudence.⁴⁷ Te Tiriti and tino rangatiratanga are inseparably linked, but the latter goes beyond the former due to its international law connection and political rather than just legal scope. Additionally, the chequered history between Māori and the Crown shows that the exclusion of Māori from partnership-based decision-making, combined with the lack of capacity to challenge Crown action, has produced significant tensions.⁴⁸ However, this relationship is evolving and some recognition of an enlarged tino rangatiratanga sphere has occurred in recent times.⁴⁹

The principles, ethics and practices of tikanga are the operational elements of tino rangatiratanga (see Chapter 7), and tikanga is increasingly finding a place in our legal and political system.⁵⁰ A rangatiratanga approach would see tikanga exercised under rangatiratanga authority rather than only within the confines of kāwanatanga governance.

A spotlight on key tikanga principles⁵¹

- Whānaungatanga – maintaining kin relationships with humans and the natural world, including through protocols of respect, and the rights and obligations that follow from the individuals place in the collective group;
- Wairuatanga – acknowledging the metaphysical world – spirituality – including placating the respective realms of the atua;
- Mana – encompasses intrinsic spiritual authority as well as political influence, honour, status, control, and prestige of an individual and group;
- Tapu – restriction laws; the recognition of an inherent sanctity or a sanctity established for a purpose – to maintain a standard for example; a code for social conduct based upon keeping safe and avoiding risk, as well as protecting the sanctity of revered persons, places, activities and objects;
- Noa – free from tapu or any other restriction; liberating a person or situation from tapu restrictions, usually through karakia and water;
- Koha – gift exchange;
- Utu – maintaining reciprocal relationships and balance with nature and persons;
- Rangatiratanga – effective leadership; appreciation of the attributes of leadership;
- Manaakitanga – enhancing the mana of others especially through sharing, caring, generosity and hospitality to the fullest extent that honour requires;
- Aroha – charity, generosity;
- Mauri – recognition of the life-force of persons and objects;
- Hau – respect for the vital essence of a person, place or object;
- Kaitiakitanga – stewardship and protection, often used in relation to natural resources.

Those exercising power in the kāwanatanga sphere would need to understand tikanga principles (see spotlight above for some key principles), so the negotiation and cooperation in the relational sphere can operate.

In short, approach 3 for a future oceans management system reflects the Tiriti promise of tino rangatiratanga over taonga. It is about shifting from the “right to culture” model embedded in frameworks like the RMA (see Chapters 3 and 12), which is focused on things to be protected *by* government, towards one of partnership and agency *with or alongside* government. This includes Māori rights to self-determination and the right to make decisions over ancestral land, communities and matters that relate to the preservation and advancement of culture (inclusive of language, practices, values and customs).⁵²

The specific content and institutional forms of rangatiratanga have been evolving and tested across different contexts, over time.⁵³ But approach 3 is less about describing the *substance* of tikanga — which can change over time, differs depending on place and context, and is ultimately for mana whenua to speak to. Instead, it is more about establishing a framework in which there is recognition of the relative power and influence of Māori to *determine, pronounce and enforce* what tikanga demands.

Feature 2: Deployment of power-sharing structures

A system rooted in tino rangatiratanga arguably does not require revolution – many foundations are already there in the present system. These could be built on.

Dr Nin Tomas offers two ways of implementing tino rangatiratanga:⁵⁴

...first by “greater tolerance and benevolence along a series of principled guidelines” and, second, as a “peoples-centred, enabling principle that allows Indigenous peoples to re-establish their social, economic and political institutions”.

Professor Margaret Wilson adds (drawing from Roger Maaka and Augie Fleras), that:⁵⁵

The principles and practice of tino rangatiratanga conjure up a host of reassuring images for restoring “independent Māori/iwi authority” to its rightful place in a post colonizing society (Mead 1997). The essence of Rangatiratanga is sovereignty driven: For some, this sovereignty prevails over the entirety of Aotearoa, for others, it entails some

degree of autonomy from the state, for still others, it consists of shared jurisdictions within a single framework.

Thus, there are many ways to approach the practical impact of tino rangatiratanga on a reformed oceans management system. It could manifest as partnership (eg co-governance and co-management arrangements with the Crown and local government), as separate spheres of influence for Māori (eg transfer of some powers), as greater influence for Māori over Crown decision-making (eg a requirement that a plan be consistent with iwi-led documents), or as a sharing of resources (eg distribution of shares of resource rentals or royalties, or return of ownership rights). It could be achieved through a combination of those mechanisms.⁵⁶

However, the key point is that the approach would be more than just a recognition of Māori principles or concepts in an otherwise Western system (eg a legislative requirement to have regard to kaitiakitanga as an ethic of stewardship) or a grievance-based settlement process (based on righting past wrongs). It recognises that Māori are a defined community of constitutionally important actors with a role in shaping a future Aotearoa, not a passive recipient of paternalistic or benevolent protections or the source of useful environmental principles to be adopted. Māori are involved in governing, not just being governed.

Of course, all of this involves deep constitutional conversations that extend well beyond the context of the oceans or even resource management. However, control of resources and stewardship of the environment are central theatres of the debate. At the more general or “constitutional” level of governance, several suggestions have been made for models that better reflect tino rangatiratanga (see Chapter 4 and spotlight below) which would have significant impacts on marine management.



Rangihoua Pā, Bay of Islands

Raewyn Peart

A spotlight on models that have been proposed to better reflect tino rangatiratanga⁵⁷

1. A three sphere model consisting of an assembly made up of iwi, hapū and other representation including Urban Māori Authorities (the rangatira sphere), the Crown in Parliament (the kāwantanga sphere), and a joint deliberative body (the relational sphere).
2. A multi-sphere model consisting of an assembly of iwi/hapū and other Māori representation (the rangatiratanga sphere) and the Crown in Parliament (the kāwanatanga sphere). It also includes a relational sphere which would have two parts – a constitutionally mandated set of direct iwi/hapū/Crown relationships to enable direct iwi/hapū-Crown decision-making plus a unitary perhaps annual assembly of broader Māori and Crown representation.
3. A unicameral or one sphere model consisting of iwi/hapū and the Crown making decisions together in a constitutionally mandated assembly. This model does not have rangatiratanga or kāwanatanga spheres. It only has the relational sphere.
4. A bicameral model made up of an iwi/hapū assembly and the Crown in Parliament. This model has distinct rangatiratanga and kāwanatanga spheres but has no provision for a relational sphere.

Such models could provide an overarching framework for a future oceans management system which could take many forms.⁵⁸ For example, it suggests there might be a higher, constitutionally significant piece of legislation outlining fundamental relationships between the Crown and Māori and between people and the moana as an ancestor. This could be an integrative or umbrella “Oceans Act” which would also outline principles for how more detailed decision-making could be shared under “operational” and focused legislation like the NBA, Fisheries Act and conservation legislation.

Triggers for power sharing or transfer of powers/influence (see Chapter 12) could come into operation where a particular Act refers to terms such as Māori, te Tiriti o Waitangi, tikanga Māori, Māori customs, cultural practices, wāhi tapu, sites of significance, ancestral connection, customary rights or title, and so forth. This is not a wholly radical idea, as there is already the

potential (largely unrealised) to transfer powers under the RMA, and agencies are still grappling with what the general te Tiriti clause in the Conservation Act means in terms of power sharing and rights to use resources. The MACA Act, and its concept of customary marine title, is also about sharing power. The distinction here is not that power sharing is not currently possible (it is under the RMA, for example), but that (aside from specific settlement legislation) there is little guidance in the current system as to when and to what extent it *should* happen. Approach 3 would make it more explicit.

Feature 3: Potential structural change

Capturing the spirit of this approach would not necessarily require overhaul or replacement of the structural pillars of the current system (see Chapters 11 and 12). The RMA/NBA could remain, as could the boundaries of existing government departments and agencies like the EPA and Maritime New Zealand (as long as there were durable mechanisms for them to work together, such as through formalisation of the Oceans Secretariat). Instead, there would be a rangatiratanga lens placed over the features of the current system to look at how each might evolve in response. Its thrust would be greater integration through allowing rangatiratanga and tikanga to be exercised across existing frameworks, rather than forcing those frameworks together in a Western sense.

For example, the recent *Trans-Tasman* decision now requires decision-makers under the EEZ Act to consider existing interests stemming from tikanga as well as aspects of tikanga as an applicable law.⁵⁹ Given the significant expertise this may require, should the existing Māori Advisory Committee be replaced with or turned into a separate assessment body? The body could assess whether a consent application is consistent with tikanga under its own decision-making criteria, while the application framework and process are largely retained. The two decision-making bodies could meet to concur or decline consent.

That said, the holistic approach of te ao Māori may support the greater integration of some legislation that does not work well together and struggles to allow effective connections to be made (see Chapters 3 and 11). Segmentation and siloed approaches are a problem from the te ao Māori worldview where all aspects of the environment are inherently interconnected.⁶⁰ For example, the RMA and EEZ Act might be combined, and marine conservation legislation like the Marine Mammals Protection Act and Marine Reserves Act could be integrated into more holistic conservation legislation spanning land and sea. There could be a separate new MPA Act, but it would provide a space for tikanga to be exercised through its toolkit (eg by allowing some use within protected areas to preserve the respect and relationship between people and the environment). Marine spatial planning (see Chapter 10) would be a

valuable integrative tool in which Māori could, alongside the Crown and other public authorities like councils, make high level decisions about the use and protection of all marine resources at place.

However, some new institutions may be needed, and others would be altered. For example, a national level independent advisory body on oceans – a Tikanga Commission – may be desirable to evaluate and contribute to government policy through a tikanga and mātauranga lens (see Chapter 12). Alternatively (focusing on the “relational” sphere) this could be a single Oceans Commission with dual commissioners – one appointed by Māori and one by the Crown. This would ensure Māori are involved in agenda-setting for policy and priorities rather than being consulted on or responding to a pre-determined government agenda.

This Commissioner model – with an independent watchdog angle – could be accompanied by an “accountable” or “representative” national level Māori body to which some powers could be transferred from the Crown (or at least as a vehicle through which iwi and hapū would engage on national-level policies and programmes). While that could be an institution of much broader competence (eg the iwi/hapū assembly, with legislative powers, floated by some) it might instead be a more focused “executive” body representing iwi and hapū views through a national level body.⁶¹ This could even have the function of jointly signing off on significant national level decisions taken by central government, including a national oceans policy and strategies for the allocation of marine resources. That would provide an incentive to work closely with Māori in their development.

Regional councils could retain jurisdiction over the coastal marine area, but representation within councils themselves could be altered through the use of Māori wards. Alternatively, powers could be recognised for iwi and hapū to exercise a separate layer of jurisdiction over decision-making in the moana. Other more nuanced models of co-governance (see Chapter 12), such as that established for the Waikato River, could be used for the oceans. Co-governance arrangements could be put in place across the board for regulatory and policy functions (eg in the proposed membership of planning committees under the NBA), for operational services impacting the moana (eg three waters service delivery entities), and for advocacy (eg in the governance of regional branches of an Environmental Defender’s Office charged with taking legal action to protect the mana of the moana). Co-governance arrangements could also be put in place for arm’s length commercial operations, such as if a public quota holder were established to lease out quota to achieve broader social and environmental benefits. Co-governance at a national level may prove challenging unless some form of representative body were established.

While institutional change could be focused at the governance level (sharing oversight and strategic decision-making responsibilities), it could also extend into co-management (doing on the ground mahi with adequate funding). While that might see existing and separate institutions (iwi and agencies) working together (and the Randerson Panel recommended expanding the co-management agreements reached under the RMA to a wider range of settings), it might also see the development of new institutions designed to bring them together in a more structured way (some kind of co-management agency). For example, if operational guardians were to be established to manage MPAs (see Chapters 9 and 12), the composition of these entities could reflect co-management. Even an Oceans Agency might be designed in a way that was sensitive to co-management, transforming it from regional branches of a “Crown” entity into something quite different (in which mana whenua were themselves embedded in regional offices reflecting the rough boundaries of rohe moana).

An approach based on an enlarged rangatiratanga sphere, or a more substantial relational sphere, would rely on mana whenua being resourced adequately to discharge their marine functions alongside the Crown (and other bodies).⁶² Although resourcing could be provided through funding from the Crown, that may not suitably reflect the idea of partnership inherent in the approach. Sustainable and independent resourcing for mana whenua, which is secured by the Crown and councils primarily through taxation (and which therefore relies on democratic representation), could instead be built into the system through more nuanced mechanisms, such as a share of the proceeds of green taxes designed to penalise destructive activities (but which are avoidable through behaviour change), or a share of resource rentals or koha charged to users for the use of marine resources (eg exclusive occupation, discharges, the taking of fish, royalties from marine minerals) (see Chapter 8).

Feature 4: Changes to norms and the toolkit

Other potential design features of approach 3 could include:

- Enacting consistent te Tiriti clauses across legislation that are based on giving effect to the principles of te Tiriti (such as under the Conservation Act). Such clauses could also recognise the importance of UNDRIP (having broader significance than the wording of te Tiriti itself) (see Chapters 3 and 10).
- Continued defence of te Tiriti settlement rights and interests, including rights in fisheries quota and aquaculture (see Chapter 3), but clarifying that sustainability measures and RMA/NBA restrictions imposed through co-governance mechanisms are not derogations from those rights.

- The establishment of a nuanced range of co-governed and co-managed protected areas that allow the exercise of cultural practices and are deployed in areas that are tailored, not just to Western ideas, but also reflect spiritual importance and cultural significance (see Chapter 9). This could build upon the nascent idea of ahu moana developed in the Seachange Tai Timu Tai Pari initiative, where mana whenua and local communities work together to manage a marine space.
- Amending the purposes and principles of a raft of marine legislation to include concepts at the heart of tikanga, such as whakapapa, whanaungatanga, kaitiakitanga, and the mana and mauri of the natural environment (see Chapter 7). This could build upon the conceptual core of the NPS for Freshwater Management (Te Mana o Te Wai), which arguably reflects the “relational” sphere when it comes to norms (in that it is a concept that speaks to multiple world views, not just te ao Māori).
- A clear process and statutory guidance for the transfer of powers to iwi and hapū (such as under section 33 of the RMA, for the establishment of protected areas, or for fisheries controls) (see Chapter 8).
- The inclusion of tools like rāhui having direct legal force, rather than having to go through a separate process to be enforceable (see Chapter 8).
- The recognition of mātauranga Māori as a valued source of knowledge and information, not just an expression of values, opinions or metaphysical belief, across multiple statutory frameworks. This could be supported by a national database recording mātauranga and integrating it with other frames of knowledge, as long as intellectual property and cultural concerns could be addressed. Monitoring activities by councils and government agencies, as well as citizen science programmes, could be informed by mātauranga or there could be a parallel system of monitoring led by mana whenua.
- Potentially revisiting “ownership” rights with respect to the moana (or elements of it, such as the foreshore and seabed or minerals) that flow from recognition of rangatiratanga.
- The conferral of legal personhood on elements of the moana, enabling co-governance mechanisms to operate in ways that recognise the agency of the natural world (similar to models for Te Urewera or the Whanganui River – see Chapter 8).

Many features described in other approaches may also be suitable for inclusion in this one,⁶³ particularly where they fill obvious gaps (eg the creation of an EEZ policy statement, the inclusion of estuaries within the freshwater NPS, or clarity around the respective roles of the RMA and Fisheries Act); improve deficient norms (eg the culturally and environmentally limited purpose of the Marine Reserves Act); or orient decision-making to the future (eg mandatory targets for enhancement and recovery, strategic plans for fisheries in particular places, a strategy for a principles-driven rollout of a culturally sensitive network of protected areas,⁶⁴ or including a specific “implementation” part in the NZCPS).

The list is potentially endless and deserves close consideration. However, the key point is that all these features would be coloured by the overarching theme of the approach – an enlarged rangatiratanga sphere. They would involve Māori as partners in decision-making, and recognise norms and ways of making decisions that are sensitive to tikanga (eg using protected areas to safeguard places of spiritual as well as ecological and instrumental value and significance) and that embrace synergies between te ao Māori and other worldviews (eg in the concept of te mana o te wai).

Many have commented that Aotearoa New Zealand’s unique advantage in environmental management is the existence of tikanga and the adaptability of the legal system to accommodate tikanga principles and the practices and structures that flow from them. This approach would embrace that point of difference by allowing tikanga to develop outside of, but in alignment with, a Western governance structure: a convergence of the spheres.

Brief assessment

Because approach 3 is described in a quite different way to approaches 2 and 3, it is in some ways more challenging to identify pros and cons neatly in tabular form. It is also fraught with difficulty because its core normative features are highly dependent on people’s worldviews and values. What may be a benefit for one person could be seen as a risk by others. The approach is, however, intended to be one that goes beyond just te Tiriti jurisprudence and makes it clearer what power sharing looks like in the future. Such clarity may have significant benefits as we move into a post-settlement environment focused less on grievance and more on partnership. The approach is also pluralistic in a normative sense; it contemplates a shared space where new concepts can evolve – the relational sphere – and may foster a “third way” where te Māori and Western concepts can meet. Many may also regard an enlargement of the tino rangatiratanga sphere as a benefit in its own right irrespective of

its form (eg the use of section 33 of the RMA, an iwi-led NPS on te Tiriti o Waitangi, or co-governance arrangements like for the Waikato River).

Others may see a system premised only on tino rangatiratanga as failing to reflect the plurality of worldviews held by society, or some forms of power sharing as altering the forms of democracy (including local democracy) they hold dear. No-take MPAs may be valued by some and anathema to others. There may be challenges in a system that introduces spiritual or metaphysical considerations (which may not, for example, be amenable to judicial resolution), or a system in which aspects of te ao Māori are cherry picked or co-opted by a system that retains Western structural features. However, aside from governance arrangements, the approach provides valuable opportunities to reconceptualise how people relate to the moana and broaden the toolkit for management.

13.6 Approach 4: Breaking the normative mould

In a nutshell

While approaches 1 and 2 represent a significant degree of change, they do not necessarily break the normative mould or represent a fundamentally different way of looking at the world. Approach 2 is

primarily about far-reaching structural change (legislative boundaries and institutional redesign) while approach 1 is primarily about expanding and making better connections across the system's existing toolkit. Approach 3, while it embraces the normative concepts inherent in te ao Māori and would see significant shifts on this front, is primarily oriented towards power sharing between human partners in the system – a reconceptualisation of the Māori-Crown relationship – rather than being rooted in a single overriding “idea”.

Approach 4, however, would seek to shift the ways in which the system conceptualises the relationship between people and the moana. This might in some ways be characterised as one (although by no means the only)⁶⁵ form of an ecocentric approach – a transformation in norms – but would go well beyond how we express the purpose and principles of legislation.

The approach is, at root, about giving nature the same kinds of multifaceted attention that we already give people in our society. That has potentially broader implications than one might initially think, given the complexity of human society and how our interactions with each other are managed. It provides some answers to the question: what would happen to the system if the ocean were one of us? The key features of approach 4 are summarised below in Figure 13.9.

Raewyn Peart



Wave, Hahei

Theme	Key features of approach 4
Overall description	Approach 4 is about reshaping the worldview upon which the system rests. This normative shift has significant implications for the toolkit and institutional design.
Legislative design	<p>Legislative redesign is not the key driver of approach 4, and many options (including from other approaches, such as an Oceans Act) could be possible. The existing statute book could, however, remain largely unchanged.</p> <p>While the NBA and Fisheries Act could remain separate, environmental limits (including those concerning the impacts of fishing on the marine environment) would be found in the former and the latter would be concerned primarily with stock management and allocation.</p> <p>A new umbrella statute (eg an Oceans Act) may be needed to confer personhood on the moana (or aspects of it), although some rights could be conferred via the New Zealand Bill of Rights Act.</p> <p>Arbitrary legislative boundaries could be removed so as to better recognise the indivisibility of the moana as a “person”, such as the boundary between the RMA/NBA and EEZ Act, the Marine Mammals Protection Act and Wildlife Act, and Crown Minerals Act and Continental Shelf Act.</p>
Norms (ethics, principles, objectives)	<p>There is recognition that the moana and its living (and non-living) components are deserving of rights and respect, and are not just to be protected and used for instrumental value. The system could be founded upon principles like te mana o te moana or the voice of the ocean.</p> <p>There would be potential for synergistic expression of norms founded on te ao Māori and ecocentrism.</p>
Institutional design	<p>Institutional change would be focused on how the moana, as a person, would be represented by humans. This could add a layer of institutions, or amend existing ones, and may not require complete overhaul. Some options in approaches 1, 2 and 3 may be compatible with this approach.</p> <p>An independent and co-governed Oceans Commission would be created to speak for and act on behalf of the moana as a whole.</p> <p>Guardians would be created to speak for more granular places/aspects of the moana, such as species or MPAs. Personhood could be conferred at multiple scales and over multiple elements in the marine environment.</p> <p>An oceans councillor or observer could be made part of regional councils, if they were to retain jurisdiction over the coastal marine area, to ensure a strong focus on marine matters.</p> <p>The EPA would be given a stronger role in overseeing the performance of regional councils.</p> <p>Central and local government arrangements could remain largely unchanged, but their relationships with the moana as a legal person would need to be clarified and made judicially enforceable. Authorities would manage the oceans on behalf of the moana, not in their own right.</p>

Theme	Key features of approach 4
The toolkit	Many of the more granular tools in approach 1 could also be deployed, but potentially recast in a more ecocentric mould.
	The ocean could hold property in its own right (eg quota, protected areas).
	The ocean could, through its agent, be empowered to enter into contracts and have the same rights as humans under common law (eg to take civil action in trespass or other torts like negligence).
	The ocean could impose constraints on the use of its property, eg through things like covenants and easements.
	Koha/resource rentals could be paid to the ocean itself for the harvesting of fish, the occupation of the seabed, marine mining and other extractive uses, as well as for land uses that could impact the marine environment.

Figure 13.9: Key building blocks of approach 4

Feature 1: Conferring legal personhood on the ocean

The centrepiece of this system would be legal recognition of personhood for the ocean (see Chapter 8). At its heart, this would be an institutional design measure – one or more new entities would be created – but it would influence a whole variety of other themes too. It reflects the idea that conferring personhood on nature is not just a “tool” like a plan or economic instrument, a principle like “sustainability”, or an institution like a new Ministry. It is, instead, a different way of seeing the world and ultimately subversive of what is arguably the dominant instrumentalist ethic in the current system.

Personhood is not just an intangible idea, however, it requires careful consideration of the legal machinery to make it happen. There are many different ways for the moana to be given personhood in practice, including at different scales. However, these are not necessarily alternatives. Just as collectives of people can be given legal personhood in overlapping ways (eg trusts, companies, statutory entities, charities, councils), so too could the natural world have many “people” operating in the system. Thus the ocean as a whole – perhaps in the personification of Hinemoana – could become a legal person in its own right, in the same way that businesses might choose to establish an umbrella company. But particular areas (eg biogeographical regions) could become legal entities as well (they may have different interests to each other) as would particular places of special value (eg protected areas or other areas of significance). Going further, the approach could give a voice to the particularly *vulnerable*. Just as we have a Children’s Commissioner and a Health and Disability Commissioner, so too could we have a human mouthpiece for threatened or vulnerable (or

protected)⁶⁶ species. As their threat status changed, they could slip in and out of this layer of personhood.

The ocean as a whole would need a human representative to give it a voice, to tell us what it is saying. It could be “spoken for” by an independent Oceans Commission (see Chapter 12), potentially a branch of a broader Futures Commission (into which the Parliamentary Commissioner for the Environment could morph), whereas the legal persons of particular regions and places (eg protected areas) or species could be represented by guardians appointed jointly by the Commission and mana whenua.

The national-level Commission itself – which could even simply be called “the Ocean” or “Hinemoana” to further emphasise the agency of nature – would be an independent entity (eg a Parliamentary body) but include partnership with mana whenua. For example, there could be half a dozen commissioners with some appointed directly by a national level Māori representative body. The underlying ethic of the Commission, reflected in legislation, would be founded in concepts that merge te ao Māori with Western thought (or be one that most could be “on board with” like Te Mana o Te Moana or the voice of the moana).

Proper scientific and planning expertise would be important, and the Commission – as the voice of the moana – would need to be properly funded to speak. Funding would need to be secure and predictable, either through a proportion of more general revenue linked to economic activity and ultimately to the use of our resource base (eg GST) or hypothecation of revenue obtained directly through the use of the *marine* environment (eg resource rentals) (see Chapter 8). This would be seen, not as a revenue

raising tool per se, but rather as a payment or koha to the moana for its services (in the same way that a human sells his or her labour and property). Such are the shifts of perspective that come with recognising nature as a person alongside ourselves.

Personhood would recognise that the moana needs a voice, not only in management regimes applying to the sea, but also in decisions on land that affect it. This is consistent with the Māori view that Tangaroa has the mana to move through freshwater and speak with the land, and that the atua are all connected to each other and to people through whakapapa. It also reflects how we treat humans – by stopping harm originating outside our own bodies. The approach would strengthen and transform the notion of “integrated” resource management, which under the RMA (at least in theory) includes the connection between land uses (eg forestry, urban development) and the health of the marine environment.

For example, if sediment flows from agricultural, urban or forestry activities were impacting on the ability of an estuarine environment to maintain its ecological stability or populations of key species (including fish upon which human communities rely), the moana could simply say “no” – and those activities would need to stop. Such things would upend the strong ideas people have about terrestrial imperialism – that a peculiarly intelligent land-based primate is somehow entitled to colonise the sea simply by virtue of its ability to do so – which is still implicit in many of our laws. Whether homo sapiens would be entitled to compensation for the emancipation of the sea – such as for widespread land use change – is an intriguing question that may depend on how genuinely people accept that life in the ocean deserves to be a person, or whether it is simply a useful management tool to improve the environment.⁶⁷

But legal personhood would not limit the voice of the ocean to management decisions under the RMA. Hinemoana – if that were the term adopted – would have the ability to intervene and influence more systemic settings, such as controls on the creation of potential waste streams (eg plastics), the content of the school curriculum, the social responsibilities of corporations and the emission of greenhouse gases.⁶⁸ In short, the sea would have a broad ability to influence any decisions that affected it. The purpose and principles of all relevant legislation would recognise this, which would be configured to embrace concepts such as te mana o te moana or the voice of the oceans, just as the anthropocentric concept of sustainability recognises the importance of people providing for their own wellbeing.

All of the above suggests that it would be important for legal personhood to be meaningful, via the conferral of actual powers and responsibilities (or at least real influence), rather than just legal recognition or conferral of a general advocacy function (see Chapters 8 and 12). After all, human people do not just have the right to *speak* for their own interests; they also have specific rights that can be legally defended and obligations that can be legally mandated. So too could the ocean.

For example, management authority and operational responsibility could be conferred on the ocean itself in some situations, such as active management of protected areas (transferred from the Department of Conservation). The ocean would be in charge of looking after its own health in such areas (where the imperative is for conservation), just as people have the agency to make decisions about their own health.

Of course, the internal structure of legal persons would need to be thought through carefully, as ultimately (even with the most ecocentric statutory mandate in the world) they are still matters decided by human beings on its behalf. Who should such representatives be accountable to, and appointed (or removed) by? A Minister? Parliament? Mana whenua? The higher courts? All – or none – of the above? All are potential options. And what would the ocean want? Ecological integrity? The satisfaction of giving humans what they need? Or a rest from interaction with people? There is a rich discussion to have here (see Chapter 7), but the starting point of the approach is a recognition that the ocean might have *some* wishes of its own. General statutory principles about the ocean’s interests need not be exhaustive, and could leave some room for interpretation by the Commission, guardians and the courts. By comparison, the interests of children are frequently determined by the courts in context, without a definitive list of what they are.

Feature 2: Powers and rights would be conferred on the ocean

If the ocean (or parts of it) were to be a person like a human being, close consideration would need to be given to what specific rights or powers it would have (see Chapter 8). Of course, individual human rights (in the broader sense, including property rights and statutory rights) are not absolute – the public interest frequently overrides such things.⁶⁹ The same could be recognised for the moana as a person, in that the public interest (eg food security, ecological integrity) is not necessarily the same as or subservient to what the ocean might “want” (which might, for example, include a simple desire to be left alone by people).

As for humans, recognition of personhood is not necessarily a recognition of sovereignty or control. It is about giving nature a voice, a right to

participate, enjoyment of natural justice, and protection from the most egregious behaviours of others. For example, just as a resident of Tāmaki Makaurau/Auckland would not be expected to give up their health to allow the emission of toxic fumes next door, so too might an ancient coral be allowed to prevent its own destruction.

That said, the system could go further and consider the moana to be not just a “person”, but also more akin to a public institution or even a constitutionally significant branch of government. In that approach to personhood, the ocean’s ability to defend its rights might extend to the proactive exercise of public powers. To the complex balance of legislature, executive, judiciary and mana whenua we could even add another actor: nature itself. A broader constitutional rethink – which may occur in the future – may even be more achievable at sea (see Chapter 8 on how this has been done in other jurisdictions), because it is not defined by private human ownership in the same way as on land.

Just as people appoint learned legal professionals as judges, elect councillors to local government and install experts as advisors within public authorities, so too could the ocean (through representatives with the appropriate legal mandate) have a role in doing those things. There could be a commissioner representing the moana in resource management proceedings, an “oceans” ward contributing a councillor to local government, and independent advisors (eg from an oceans commission) installed in various ministries and operational departments. Would it be beyond the realms of possibility for the ocean to be installed as a *judicial* body, subject to appropriate representation of mana whenua and allowances for the exercise of tikanga?

With this large grey area ripe for debate, some rights or powers for the moana could include the following, and range from minor to transformative.

- The power to approve (or decline) regional coastal plans (or the marine and catchment component of regional combined plans) as well as final sign off on marine spatial plans, catch limits,⁷⁰ and/or conservation strategies.
- The ability or mandate to issue the government with a scorecard measuring its progress in achieving targets relevant to the health of the moana, and even the ability to set what those targets are.
- The power to require the creation of product stewardship schemes or regulations under the Waste Minimisation Act, and sustainability measures under the Fisheries Act, even if it doesn’t have the final say as to what they look like.

- The power to have a say about the allocation of resources based on the degree of risk or benefit to the oceans. This would apply across all resources – fish, minerals, coastal space, discharges to catchments and so forth. For example, it might be that the Commission, as representative of the moana, or guardians representing other parts or aspects of the marine environment, would offer advice to the relevant Minister on the release of acreage for minerals exploration that would need to be given “particular regard” to. Instead of owning minerals and expecting a return through royalties, the Crown might be transformed into the trustee of the oceans and expected to manage trust property in the interests of its beneficiaries – including making payments for restoration.

Legal personality has implications for many facets of system design. We would be embracing nature as an actor in human society, which could go well beyond just questions of how the sea is “managed” or who “owns” it (see spotlight).

A spotlight on the implications of legal personality for system design

- The ocean could hold property in its own right. That might even include quota in fisheries (an ecocentric version of a public interest quota holder),⁷¹ perhaps to the extent that it could buy out existing (and willing) quota holders. It may well choose to retire such quota, just as a human might choose to expend less time in earning money through selling his or her labour in the interests of his or her health and longevity.⁷² The extent to which the ocean itself could be a property holder in other senses (where rights have not already been privatised, such as with most coastal/marine occupation rights) may depend on ethical questions. For example, would it still be ethically wrong for there to be property interests in a space that some regard as a common or shared space (noting that mana whenua may contest the idea that the ocean *is* a commons), even if such rights were held by the moana itself and were inalienable?
- As mentioned earlier, the ocean could require payment for its services (seen as a koha to an ancestor), rather than a resource rental to the Crown. This would then be used *by* the ocean in order to further its own interests, for example by paying human scientists to undertake research about its own ecology or to fund agencies to monitor its health. Charges

could be differentiated according to the kind of use (eg minerals, fish, occupation) and some non-consumptive services could be provided gratis (eg navigation, coastal access, ecosystem services). But these would be set through a consistent lens (what is a fair price to the moana) rather than just reflecting historical human ownership structures (eg Crown ownership of minerals), existing expectations (eg that quota holders fund research relevant to the health of a particular stock) or characteristics of particular resources (whether something is publicly or privately owned).

- The ocean could enter into its own contracts, and be authorised to seek judicial action to cancel oppressive agreements or conditions of them.
- The ocean could, subject to the same kind of public interest constraints imposed on human landowners, exclude activities from parts of its own estate. It could even provide permanent protection through familiar “property” based tools like covenants (which could form one basis for bespoke MPAs).
- The ocean could be a participant in wider human systems of justice, by (for example) having the standing and resources to contest people’s actions not just in environmental legislation (eg appeal rights for fisheries decisions) but also in civil courts (based on trespass, nuisance, negligence and so forth).
- The concept of personhood also vastly expands the possibilities of traditionally anthropocentric legal tools; for example, instead of just relying on regulations and plans to prevent and then manage marine biosecurity incursions, might we not rely on the ocean itself to take action in trespass to force agencies to eject or manage pests? Or to claim compensation for unauthorised entry of human generated contaminants from catchments or coasts, just as a landowner can take civil action for intrusion from neighbours.
- The ocean could also influence, in consultation with the Ministry of Transport and Maritime New Zealand, where shipping lanes could be located, in the same way that private landowners have legal rights to test decisions around regulatory takings for public projects. Any “taking” of oceans space that infringes the basic interests of the oceans itself might attract compensation as a compulsory acquisition.

- A marine spatial planning process could be framed as the oceans getting its own house in order and pursuing its own interests – a portfolio of investments – rather than a scramble for resources or an effort to defuse spatial human conflicts.
- The ocean could be given rights under the New Zealand Bill of Rights Act. Although this is subject to infringements that are justified in a free and democratic society,⁷³ it would at least impose a requirement for legislators to consider the extent to which the oceans’ rights are being infringed and for them to be demonstrably justified.
- The ocean could hold legal responsibilities and obligations as well as rights and powers. While some, such as the ability to sue the moana for damage to land and property, may be disingenuous, others present interesting possibilities. For example, the ocean itself could potentially be registered as a participant in the emissions trading scheme, providing incentives to encourage human projects that sequester carbon and, through regulatory powers, discourage those that emit greenhouse gases (eg bottom trawling).

Of course, many of these suggestions lie at the radical end of reform, and are intended as a prompt for debate rather than as a ready-made system. But perhaps the most radical end point of an ecocentric approach is also the most interesting to ponder: humans unquestioningly manage marine populations like fish stocks for their benefits to people, but if the ocean is a person, should it not also have a say about human populations? If we have the concept of MSY, or acceptable mortality, let’s flip that around. What is a maximum sustainable human population? The oceans might give quite a different answer to what people might say.

Feature 3: An evolution in institutional design

Many existing institutions could remain in approach 4 (see Chapter 12), with changes being primarily about their new relationship with the oceans as a legal person. For example, various government departments and agencies could remain separate (eg the Ministry for the Environment, Department of Conservation, Ministry for Primary Industries, Ministry of Transport), reflecting the need for the land-sea interface to be managed in an integrated way when it comes to government policy. Integration would come through a formalised oceans secretariat comprised of all relevant marine departments, and statutory recognition of a ministerial portfolio

for oceans. A focus on oceans specifically would also come from the input and advocacy of an Oceans Commission, which would act as a watchdog to ensure the interests of the moana were being placed front and centre in any decision-making.

Similarly, local government could remain largely unchanged, reflecting the existing and valuable integration between catchments and coast within the jurisdiction of regional councils. That said, the approach would be consistent with any shift in how councils are configured, including their regionalisation/unitisation (which would see land use and coastal-marine functions integrated into a single entity). There would need to be close collaboration between councils (in terms of policy and timing) that manage connected marine areas, such as in the Hauraki Gulf and Kaipara Harbour. If council boundaries remained fragmented, this could be mitigated by assigning legal personhood to marine areas that span multiple local authority units. The EPA would remain as the agency responsible for managing the EEZ, but would be strengthened in resourcing and mandate and take a stronger role on overseeing the marine performance of local government. Maritime New Zealand would also continue to exist, as would operational units within the Ministry of Primary Industries (such as Fisheries New Zealand and Biosecurity New Zealand). However, all of these could be reimagined as *agents* of the ocean, rather than *managers* of it. The moana itself, through an Oceans Commission, would form an institutional watchdog alongside them, making sure its interests were being served.

Feature 4: Legislative design implications

An approach framed around legal personhood would not necessarily demand any particular approach to legislative design (see Chapter 11). After all, individual people and companies have to engage with multiple legislative frameworks on a day to day basis too, so recognising the oceans in the same way does not immediately lead to an Oceans Act. The integrative mechanism would instead be the creation of legal personhood for the oceans as a whole, and other layers of personhood for biogeographical regions or particular areas, which could reach out into many different statutory frameworks.

As such, the RMA (or the NBA as its replacement) would remain, embracing the connection between land and sea. The Fisheries Act would remain as a home for tools that specifically manage the taking of fish and management of stocks, although it would be made clear that such measures could not undermine mandatory protections and limits imposed through the planning and consenting mechanisms of the RMA/NBA. And these would include many of the things currently expected to happen through sustainability measures under the Fisheries Act.

The Biosecurity Act would be separate, recognising both the connection between marine and terrestrial biosecurity risks and the efficiency of treating this as statutory a sub-system in its own right. Similarly,

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the Maritime Transport Act would remain intact as a collection of responsibilities and functions assigned to Maritime New Zealand, many of which lie beyond the marine aspects of the resource management system.⁷⁴ The MACA Act would also keep its existing place in the system, although to the extent there was buy in from mana whenua there could be room to reimagine its approach to “ownership” of the coastal marine area (as interests vested in the moana itself as a legal person), similar to legislation for te Urewera and te Awa Tupua. Legal personhood provides a potential “third way” in which Māori, Western and other traditions might be reconciled.

However, the approach may necessitate some changes to legislative boundaries, including the creation of a higher level, constitutionally significant, piece of legislation in which legal personhood would be conferred, in a way consistent with the principles of te Tiriti. Because it would be a concept spanning many other frameworks (including many aspects of the common law), no existing act provides a suitable place for this to happen (although some specific rights could be conferred on the moana under the New Zealand Bill of Rights Act). It could see the enactment of a kind of “umbrella” statute – an integrative Oceans Act, under which many other pieces of legislation could continue their separate existence. This Oceans Act would provide a home for mandatory marine spatial plans at a regional level (with regions defined in a biogeographical way, equating with the boundaries of various legal persons).

That said, although there are valid reasons for separating statutes (not least the need to recognise the land-sea relationship and the need to have focused purposes and subject matter), recognising the ocean as a legal person would suggest that greater integration would be desirable in some ways. The artificial boundary between the RMA and EEZ Act would therefore disappear – that is inconsistent with the idea of the oceans as a single person – with the latter incorporated into the former (with necessary distinctions made within a reformed RMA/NBA).⁷⁵ The Crown Minerals Act and a new Oceans Act would subsume the relevant parts of the Continental Shelf Act and the Territorial Sea, Contiguous Zone and Exclusive Economic Zone Act.

A more integrated approach to protected areas would be achieved through a single act with a single purpose (an MPA Act), which would subsume spatial protections under other legislation (eg marine wildlife sanctuaries) and would need to be recognised under other frameworks (eg by using the RMA/NBA to prevent land-based impacts on protected areas or their protected values). Alternatively, there could be a more integrated conservation framework more generally through a single Protected

Species and Areas Act, which would subsume current marine conservation legislation (the Marine Reserves Act, the Marine Mammals Protection Act) alongside more general statutes focused on land or spanning land and sea (eg the Conservation Act, Wildlife Act, Reserves Act, National Parks Act). That would recognise *nature* or *te taiao* as a person, not just the ocean.

Feature 5: Expanding the toolkit

When it comes to tools (see Chapters 8-10), legal personhood would also primarily be about changing the orientation of the system rather than recreating its basic fabric. For example, it is by no means clear that the ocean, as a person, would fundamentally object to the existence of the NZCPS or an NES for the seas (even if they might be transformed to reflect a more ecocentric purpose, be more explicit about the need for things like limits, or be crafted using processes in which the moana itself had a voice).

Under fisheries legislation there would still need to be limits set on fish stocks, and sustainability measures taken to prevent harm to ecosystems, but these might be set in different places (not just to maximise yield) and be made mandatory. Similarly, MPAs would be reimaged as the ocean's choices about how to manage its own estate, not just a tool to further scientific study, to protect representative areas of biodiversity, to increase fish stocks, or to offset impacts sustained elsewhere. The starting point would be that the sea would have agency to pursue its own interests, not just to protect ecosystem services for people.

Tools would also be oriented to reflect the primacy of the interests of the moana. Plans would become more strategic – outlining plans of action to reach a different future rather than just “managing” stocks or resources. For example, fisheries plans would become mandatory, place-based and designed to achieve the more ecocentric purpose of a revised Fisheries Act; the NZCPS would contain targets and implementation provisions (more akin to the more recent NPS for Freshwater Management); conservation legislation would chart a pathway towards achieving a network of protected areas (not just a tool to impose them if the ministerial will exists) and would have a requirement to set limits (eg on species mortality) with which other decisions (including on fisheries management) would be obliged to comply.

The QMS as an allocative tool would remain, but rights would be recast more firmly as privileges and contingent upon responsibilities for the health of the marine environment. The idea is that human use would be with the consent of the oceans, and consent could be withheld if its basic interests were no longer being met. In this spirit, koha/resource rentals would be paid to the ocean itself for the harvesting of fish, the occupation

of the seabed, marine minerals and other extractive uses, as well as for land uses that could impact the marine environment. This last point is important – the polluter pays principle is often talked about, but seldom do people ask: to *whom* should the polluter pay? Could it be the ocean itself?

Revenue raised would be hypothecated and funds managed and distributed by the independent Oceans Commission, including for monitoring, research and enforcement. It would also provide incentives for more efficient use of marine resources and to internalise land-based impacts (to prevent contaminants from reaching the marine environment).

Of course, legal personality does not provide a foundation for every single design choice in a new system. Some are thoroughly anthropocentric questions – such as the extent of people’s and communities’ rights to participate in planning and consenting decisions, or questions about which groups of people get rights to take resources (and who misses out). There will be thousands of specific choices that do not require the lofty concept of the ocean as a person to be invoked.⁷⁶ Many of the more granular features of approach 1, for example, may be compatible with this approach too. To some extent, such details may not matter hugely in the short term. This is because personhood could be seen as an initial catalyst for change – a new layer to the system – from which point the ocean itself could be a powerful actor in *future* waves of law reform.

Brief assessment

As with approach 3, approach 4 is something of an exploratory exercise and does not lend itself to a mechanistic or technical list of pros and cons. However, some thoughts can be ventured to stimulate conversation. For instance, recasting the oceans as a legal person may have the potential to improve biophysical outcomes (see Chapter 2) not just by strengthening regulation, but also by changing how users perceive relationships with the moana. An upside relative to other approaches (which retain many potentially conflicting objectives)⁷⁷ is that there is a clear organising concept or paradigm – a worldview – that underpins reform and and this could provide a clearer reference point to guide choices.

The approach could also provide a mechanism for greater integrated management by focusing on the marine environment itself (and stipulating its own interests), rather than the interests of sectors or legislative frameworks within it. Personhood has a great deal of flexibility and agility too, in that it could be applied at different spatial scales or to different things (eg regions, MPAs, species or the moana as a whole). And it opens up the toolbox in novel ways, by granting powers and rights to non-human

entities (eg human rights, property rights and standing in civil litigation) that have traditionally existed well beyond “resource management” frameworks. Finally, although additional complexity might be created in some ways (eg new institutions), the approach would not necessarily require overhaul of the system’s existing structures. Existing statutes and institutions could remain – in the same way that legislation for te Urewera has not completely reinvented the machinery of management – with an overlay of personhood implemented across them all (eg new rights and powers for the moana within existing laws). While the courts would likely have a greater role (to interpret the nature of rights and resolve disputes), and that could exacerbate the adversarial nature of the system, that is not necessarily a bad thing if they are suitably resourced. Standing for the moana in the courts might also bolster the stretched resources of civil society advocates.



Supreme Court, Wellington

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On the other hand, some may dismiss personhood as an artificial construct and distraction from the more tangible measures needed to create change. Recognising nature as a legal person will not by itself make a difference. It may, for some, also be too subversive of cherished anthropocentric concepts like capitalism, property rights, and deliberative democracy, with fears that powers for the moana would erode human freedom and rights (see Chapters 6 and 7). By creating a separate entity, it could also potentially pit development interests *against* the environment – fighting with the ocean in court – rather than emphasising everyone’s stewardship responsibilities to look after it. And despite being a mechanism of choice for some te Tiriti settlements, legal personhood is not itself a feature of te ao Māori and some may see it as falling short, or masking the importance, of true partnership between Māori and the Crown at the human level (there is also a risk it may resurrect debates about ownership of the foreshore and seabed, although as te Urewera shows, personhood can be compatible with “non-ownership” models). Much may depend on who gets to speak for the oceans.

Perhaps most fundamentally, the approach would represent a significant change in the system’s orientation and create potential disruption, uncertainty and litigation if rolled out at a systemic level. That said, the approach lends itself towards gradual or partial implementation, by conferring some powers but not others, by defining the moana’s interests relatively narrowly (eg as the defence of environmental bottom lines), or by granting personhood at only some scales (eg for particular MPAs). Elements of it could therefore be compatible with other approaches, and be strengthened over time.

In some senses, an approach based on legal personhood is a radically different way of thinking about our relationship with nature. But in other senses it does not require a complete revolution in norms, only another *layer* or *lens*. For example, the system already recognises the importance of principles like environmental justice, inter-generational equity and property rights. They can prompt much debate, but as concepts they are by no means new. In this approach, we would be inviting the moana as a participant into these human concepts rather than replacing them with different ones. As such, the oceans would be deserving of justice, future generations of marine life would see their interests safeguarded, and the marine environment could, just like other legal fictions such as corporations, enjoy property rights and expect to be paid.

At least in spirit, all of this is not too far distant from the notion of te mana o te wai, which has been successfully “legalised” through the NPS for Freshwater Management under the RMA, or te oranga o te taiao, which is

proposed as the purpose of the NBA. These show the stirrings of system-wide recognition of the rights of nature in a way that embraces cultural synergies. It could be taken much further in a future system that explicitly recognises the moana as a person with agency, not just rights and mana. It may not be as revolutionary as it sounds. And while here we have presented it as a starting point for a whole new system, it may be possible for other approaches to incorporate elements of legal personhood (eg personhood for MPAs) by laying it over other design features (eg changes in legislative design and the toolkit).

13.7 Concluding comments

The purpose of this report is ultimately to stimulate debate about our oceans management system and the extent of reform needed. Most of the ideas and options presented are not new. Our intention is not to present an “answer”, or to present earth-shattering insights. Many positive ways forward are known already, and the starting points for change described in this chapter reflect that.

The important thing, in our view, is to locate all of these options within a system-wide way of thinking about oceans management. They are pieces of a puzzle that will not necessarily work well if they do not dovetail together. They are complementary. We cannot reform fisheries management without thinking about our approach to climate change adaptation. We cannot look to establish a network of protected areas without addressing the impact of land-based pollutants. And we cannot focus just on redrawing legislative boundaries without thinking about the deeper economic and behavioural incentives that regulatory and non-regulatory tools have on people’s interactions with the sea and its resources. Rearranging legislation can be an alternative or a complement to institutional reform; new tools may require new institutions to support or deploy them; different worldviews may encourage the use of some tools and not others. Just as the moana is connected, so too are the parts of the system that manage it.

In this report we have approached the oceans management system by splitting it up into cross-cutting themes. We have looked at these in turn: norms (what the system should be aiming for), tools (the ways in which the system intervenes to achieve its aims), and structures (how legislation and institutions are configured).

But while change is needed, it is by no means clear what form it should take. None of the approaches presented in this chapter are necessarily the “right” starting point. Each would attempt to address the challenges

outlined in Chapters 2 and 3, but would do so in quite different ways. They have pros and cons, risks and opportunities.

Most fundamentally, oceans are not like climate change, where we have a clear normative end point (or at least milestones) to set our sights on. In the oceans, many value-based drivers remain contested. At the root of the reform conversation are our worldviews, ethics and assumptions about what the system should be aiming for, and how we diagnose and articulate problems. Different worldviews, including te ao Māori, can give quite different answers. The normative challenge is not just about drafting a set of principles in legislation – for example, revisiting the idea of sustainable management or sustainable utilisation – it is also about how, as a people, we relate to the moana. The role of te Tiriti o Waitangi and te ao Māori is central in thinking about future institutional settings, and that is a rich conversation that is evolving at pace.

Yet gone are the days where we can be content to just “manage” things. A new system needs to be strategic and both drive and pre-empt the process of change. Change – in its environmental, climatic and social manifestations – is upon us whether we like it or not. We cannot afford to treat different things as management silos.

There are also questions about how we get to a new future. To some, the status quo may be broadly appropriate, and what we need to do is focus on using what we have better. Outlaying huge amounts of time, money and resources overhauling the system requires a sound justification, particularly in the context of a system that is already in a state of significant stretch and flux. What might be a perfect system on paper for some, might be prohibitively expensive, politically unachievable or practically difficult to others. Replacing an entire system might even divert attention away from the things that require most urgent and targeted change. We have outlined a number of ways in which the toolkit could be reformed or used in a more proactive and coordinated way. It is not clear that will be enough, however. Options for more fundamental legislative redesign and institutional change deserve to be considered.

The moana and all that it contains are taonga, our watery backyard, and to some degree a shared space both inherited from our ancestors and held in trust for future generations. What do they want? If we stop to listen, what does the voice of the ocean tell us? And how will we, as kaitiaki and stewards of our vast oceans, answer? It is worth a deep conversation. Reforming the oceans management system is a kōrero that all New Zealanders need to be a part of. Below, we outline some high-level questions that will need to be discussed as part of it. There will, of course, be many others.

High-level questions for reform of the oceans management system

- What are the key problems and challenges that will need to be addressed by a future system, and what are their relative urgency?
- What do we want the system to achieve in an environmental, social, economic and spiritual sense, and what mix of worldviews and ethics should underpin it? Do we need a revolution in norms?
- To what extent, and by what means, should a future system be able to change or erode existing rights and interests in the marine space? On what grounds would it legitimately seek to do so?
- What aspects of marine management should be managed centrally, and what should be managed locally?
- What does a te Tiriti (or UNDRIP) compliant system look like in the marine space?
- Should fisheries, resource management and conservation be managed as separate silos with different purposes? Is legislative and institutional fragmentation a fundamental issue?
- Should we focus on improving regulatory tools, making the system more strategic and integrated, or providing economic and behavioural incentives? Are all of those things needed?
- To what extent would a legal framework for marine spatial planning address most problems?
- Should the current system be reconfigured from the ground up, or changed through surgical amendment to what we already have? Is it fundamentally broken?
- Does everything need to happen at once, or can it be staggered?
- How important is a desire to minimise cost and disruption in a reform process?



Wharf, Motuihe

Endnotes

- 1 Noting that whether the pros outweigh the cons is a subjective judgement.
- 2 We have not designed the different approaches so that each looks to tackle different problems and challenges. Rather, each would provide different ways of tackling the same problems, and we invite readers to consider whether those would be more or less effective or desirable.
- 3 Such is its seven objectives, including safeguarding the integrity, form, functioning and resilience of the environment.
- 4 For instance, see proposed list of outcomes in the draft NBA; Ministry for the Environment *Natural and Built Environments Bill* (Exposure Draft, 2021), cl 8.
- 5 Including the Marine Reserves Act, Marine Mammals Protection Act and Wildlife Act.
- 6 It may be impractical to require a comprehensive assessment of the threat status of all species (particularly small organisms and benthic species), but the model would contemplate that such information would be expanded over time.
- 7 For example, that controls would not require concurrence of the Minister of Fisheries and would be determined by biological factors rather than potential economic impacts.
- 8 For example, tax relief.
- 9 For example, a smoothed pathway to consent through controlled activity status; preferential weighting in applications to occupy coastal space in an attribute weighted tendering process; or specific areas set aside for an activity though marine spatial plans.
- 10 As well as any other legislation necessary for things like three waters reform.
- 11 Albeit influenced by marine spatial plans (with which decision would need to be consistent).
- 12 We note that the government has announced that such a review is forthcoming and would provide a further opportunity to make the conservation system fit for purpose at sea.
- 13 Although some provisions may need to be incorporated elsewhere or continue to stand alone, as they are not about MPAs per se.
- 14 This is significant, and analogous to national parks: if we were to consider where to put protected areas on land today, would be put national parks in the same places they currently exist? From an ecological perspective, the answer would likely be no.
- 15 For example, pipelines are protected from fishing activities. However, there is a fundamental normative disconnect too, in that pipelines require maintenance that can itself damage benthic ecosystems.
- 16 See discussion in Chapter 11.
- 17 Exact governance arrangements for these entities would need to be worked through carefully. At the time of writing, such matters are in flux.
- 18 That is not to say that there would be a single perspective from the Secretariat, since independent departments would retain their own distinct mandates and perspectives.
- 19 The relationship between a National Oceans Strategy, regional spatial strategies and the National Planning Framework under the NBA would need to be thought through carefully. It might, for example, be that a National Oceans Strategy would be one thing to have particular regard to when creating regional spatial strategies, providing a bigger picture national level view when it came to (for example) the best places for offshore wind or MPAs.
- 20 There could be “flag” provisions in each, akin to the explanatory provisions in the EEZ Act outlining its relationship with the Maritime Transport Act.
- 21 The importance of doing so would also be recognised through policies in the National Planning Framework.
- 22 Alternatively, there could be a mandatory EEZ policy statement that built upon relevant aspects of the NZCPS, recognising that not all parts of the NZCPS (eg inshore elements) would be relevant to the deep sea.
- 23 Indeed, regional policy statements within combined plans would have to give effect to a revamped NZCPS, meaning that regional policy statements would also have influence over regional or place-based fisheries plans, waste minimisation measures like product stewardship schemes, and pest management/pathway management plans.
- 24 Fisheries Act 1996, s 8(2).
- 25 Not dissimilar to how the RMA and National Parks Act apply within national parks.
- 26 The Territorial Sea, Contiguous Zone, and Exclusive Economic Zone Act 1977.
- 27 For instance, it would have a focus on indigenous species and vulnerable or threatened species, and a clear purpose statement and vision for the future.
- 28 Some provisions in the Continental Shelf Act are not related to mining or minerals and may be better located in an Oceans Act.
- 29 How that would be worded would need to be considered carefully, as the Agency would not necessarily be just “protective” in its focus, although it would need to ensure any broader mandate was exercised within the parameters of environmental limits or bottom lines.
- 30 There would be challenges in integrating these tools into a single “instrument”, as they are currently of quite different natures, have different purposes, and have distinct processes and timeframes. However, they could form a more integrated ecosystem of tools within a single Oceans Act. There may be advantages in integrating them into a single framework; for example, conservation planning and concessions could be approached with some of the rigour of regional plan and consenting processes under the RMA.
- 31 These would not necessarily reflect existing regional boundaries.
- 32 Advocacy would be for the oceans, not commercial or extractive activities within it.
- 33 Under the exposure draft of the NBA, the proposed direction is to set limits for overlapping domains, such as “biodiversity, habitats and ecosystems”, “coastal waters” and “estuaries” and the purpose of doing so is to protect “ecological integrity” and “human health”. While there are many options for what greater specificity could look like here, one would be for limits to be mandatory for a range of known pressures on the marine environment (eg sedimentation, loss of sensitive habitat, wastewater quality) and for purposes to be more targeted to these things within the umbrella of ecological integrity (eg to prevent future decline in conservation status, to retain food producing capacity, to ensure resilience to climate change). The NPS for Freshwater Management takes a more specific approach to some limits, an approach that could be replicated in the NBA itself for the marine environment (eg the hierarchical concept of *te mana o te wai* and the idea of management units). Indeed, some have proposed that estuarine environments be folded into this NPS.
- 34 Although narrower in one sense, as they would only apply on the seaward side of mean high water springs.
- 35 Including the need to maintain the ability of trophic networks to sustain marine mammals and other valued or threatened species.
- 36 In other words, if a public quota holder were to buy back some quota and distribute it based on public interest rather than market considerations.
- 37 See Chapter 8 on what a broader fisheries plan could look like.
- 38 Not dissimilar to the RMA, which manages both urban development (the design and growth of cities for its benefits) and the impacts of urban development (on rivers, air, sea and soil).
- 39 A similar tension as to where information and expertise resides can be seen in the climate change context, where two entities (the Climate Change Commission and the Ministry for the Environment) could be well placed to fulfil this role.
- 40 As can be seen when it comes to implementation of national direction by councils.
- 41 That said, the Department of Conservation performs both regulatory and operational functions, and although that has been criticised by some, other checks and balances (eg the model of a Conservation Authority or an Oceans Commission) and a strong legal mandate can ameliorate such concerns.
- 42 See generally Margaret Mutu and Moana Jackson *Whakaaro Here Whakaumu mō Aotearoa* (Matike Mai Aotearoa, Independent Iwi Working Group on Constitutional Transformation, January 2016); and Claire Charters and others *He Puapua: Report of the Working Group on a Plan to Realise the UN Declaration on the Rights of Indigenous Peoples in Aotearoa New Zealand* (Te Puni Kōkiri, November 2019).
- 43 Claire Charters and others *He Puapua: Report of the Working Group on a Plan to Realise the UN Declaration on the Rights of Indigenous Peoples in Aotearoa New Zealand* (Te Puni Kōkiri, November 2019) at 11.
- 44 See generally Ani Mikaere *Colonising myths – Māori realities: He Rukuru Whakaaro* (Huia, Wellington, 2013) at 91 and following.
- 45 Ani Mikaere *Colonising myths – Māori realities: He Rukuru Whakaaro* (Huia, Wellington, 2013) at 92.
- 46 Although debate continues as to its effect. See Jacinta Ruru “Legislative provision for Tino Rangatiratanga: A National park case study” [2005] NZYbkNZJr 24.
- 47 See generally United Nations Declaration on the Rights of Indigenous Peoples GA Res 61/295, A/Res/61/295 (2007).
- 48 Margaret Wilson “The reconfiguration of New Zealand’s constitutional institutions: The transformations of Tino Rangatiratanga into political reality?” (1997) 5 Waikato L Rev 17 at 17.
- 49 For example, in the co-governance of the Waikato River and legal personhood models for *te Awa Tupua* and *te Urewera*.
- 50 See *Takamore v Clarke* [2012] NZSC 116, [2013] 2 NZLR 733; *Trans-Tasman Resources v Taranaki-Whanganui Conservation Board* [2021] NZSC 127; and the use and recognition of *rāhui*.
- 51 Robert Joseph and others *Stemming the Colonial Tide: Shared Māori Governance Jurisdiction and Ecosystem-Based Management over the Marine and Coastal Seascape in Aotearoa New*

- Zealand – Possible Ways Forward* (Ko Ngā Moana Whakauka and Te Mata Hautū Taketake – the Māori and Indigenous Governance Centre, Waikato, 2020) at 55-56.
- 52 Robert Joseph and Richard Benton *Waking the taniwha: Māori governance in the 21st Century* (Thomson Reuters, New Zealand, 2021); Margaret Wilson “The reconfiguration of New Zealand’s constitutional institutions: The transformations of Tino Rangatiratanga into political reality?” (1997) 5 Waikato L Rev 17 at 17.
- 53 Margaret Wilson “The reconfiguration of New Zealand’s constitutional institutions: The transformations of Tino Rangatiratanga into political reality?” (1997) 5 Waikato L Rev 17 at 24.
- 54 Nin Tomas “Indigenous peoples and the Māori: The right to self-determination in international law – From woe to go” (2008) NZ L Rev at 629.
- 55 Margaret Wilson “The reconfiguration of New Zealand’s constitutional institutions: The transformations of Tino Rangatiratanga into political reality?” (1997) 5 Waikato L Rev 17 at 23.
- 56 See for example the “spectrum of influence” concept discussed by the Waitangi Tribunal *Ko Aotearoa Tenei: A Report into Claims Concerning New Zealand Law and Policy Affecting Māori Culture and Identity* (Wai 262, 2011).
- 57 Margaret Mutu and Moana Jackson *Whakaaro Here Whakaumu mō Aotearoa* (Matike Mai Aotearoa, Independent Iwi Working Group on Constitutional Transformation, January 2016) at 10.
- 58 Waitangi Tribunal *He Whakaputanga me te Tiriti - The declaration and the Treaty: the report on stage 1 of Te Paparahi o Te Raki Inquiry/Waitangi* (Wai 1040, 2014). See also Margaret Mutu and Moana Jackson *Whakaaro Here Whakaumu mō Aotearoa* (Matike Mai Aotearoa, Independent Iwi Working Group on Constitutional Transformation, January 2016) at 7-11.
- 59 *Trans-Tasman Resources v Taranaki-Whanganui Conservation Board* [2021] NZSC 127.
- 60 See Waitangi Tribunal *Report on the Crown’s Foreshore and Seabed Policy* (Wai 1071, 2004).
- 61 Whether such a body could wield constitutionally significant executive powers (eg regulatory powers) without corresponding representation within the legislature requires close consideration.
- 62 This resourcing also includes capacity-building of skills, institutional knowledge, personnel, expertise.
- 63 And vice versa – aspects of a rangatiratanga model might be transplanted into others.
- 64 In that protected areas can allow use where important to maintain the cultural or ancestral connection with the moana.
- 65 Other ecocentric approaches might, instead of conferring personhood, recognise intrinsic value, human responsibilities to nature, or concepts like te mana o te wai (where the needs of nature come first).
- 66 For example, common dolphins.
- 67 The line is not always clearcut. For example, people often speak of corporations as if they were actually people (“Google took a lawsuit”) and animal welfare laws recognise many creatures have sentience, wants and needs.
- 68 Of course, personhood would not be the *only* way to influence those things. For example, influence could instead be exercised by an oversight body like an Oceans Commission with a strong statutory mandate.
- 69 For example, in the compulsory acquisition of land for public works under the Public Works Act, or in access arrangements under the Crown Minerals Act.
- 70 This is a reversal of the current situation, whereby concurrence is required from the Minister of Fisheries for some conservation measures potentially impacting on fisheries (eg population management plans). Here, approval would essentially be required from a conservation-oriented framework for fisheries measures.
- 71 Conceptually akin to the concept of an environmental water holder within the water trading regime in the Australian Murray-Darling Basin.
- 72 Requiring a potentially tricky mechanism by which catch limits were reduced by a comparable amount, given that quota are expressed as a share of total catch limit.
- 73 Rights “may be subject only to such reasonable limits prescribed by law as can be demonstrably justified in a free and democratic society” under section 5 of the Bill of Rights Act.
- 74 For example, sanitary and health and safety aspects.
- 75 Such as different treatment/requirements at international law.
- 76 That said, an approach based on personhood would be consistent with one that embraces the idea of strong participation across the board (eg recognising the public’s interest in decisions on fisheries) and non-economic approaches to allocation (eg an attribute weighted tendering process rather than relying on who can pay the most through auctioning or unfettered markets).
- 77 For example, an Oceans Act might be intended to address issues arising from system fragmentation, but would itself by no means easily resolve tensions and trade offs between use, protection, te Tiriti compliance and other objectives (like safety and health).

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EDS is undertaking a project which is taking a first principles look at the oceans management system in Aotearoa New Zealand and outlining various options for reform. This report looks at what is going wrong and how systemic change could occur on a variety of fronts, including worldviews and principles, the management toolkit, how we structure our legislative frameworks, and how we design our institutions. It is intended to frame a wide-ranging conversation, not to make hard and fast recommendations. It concludes by presenting four quite different starting points for what whole of system reform could look like for the moana.

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