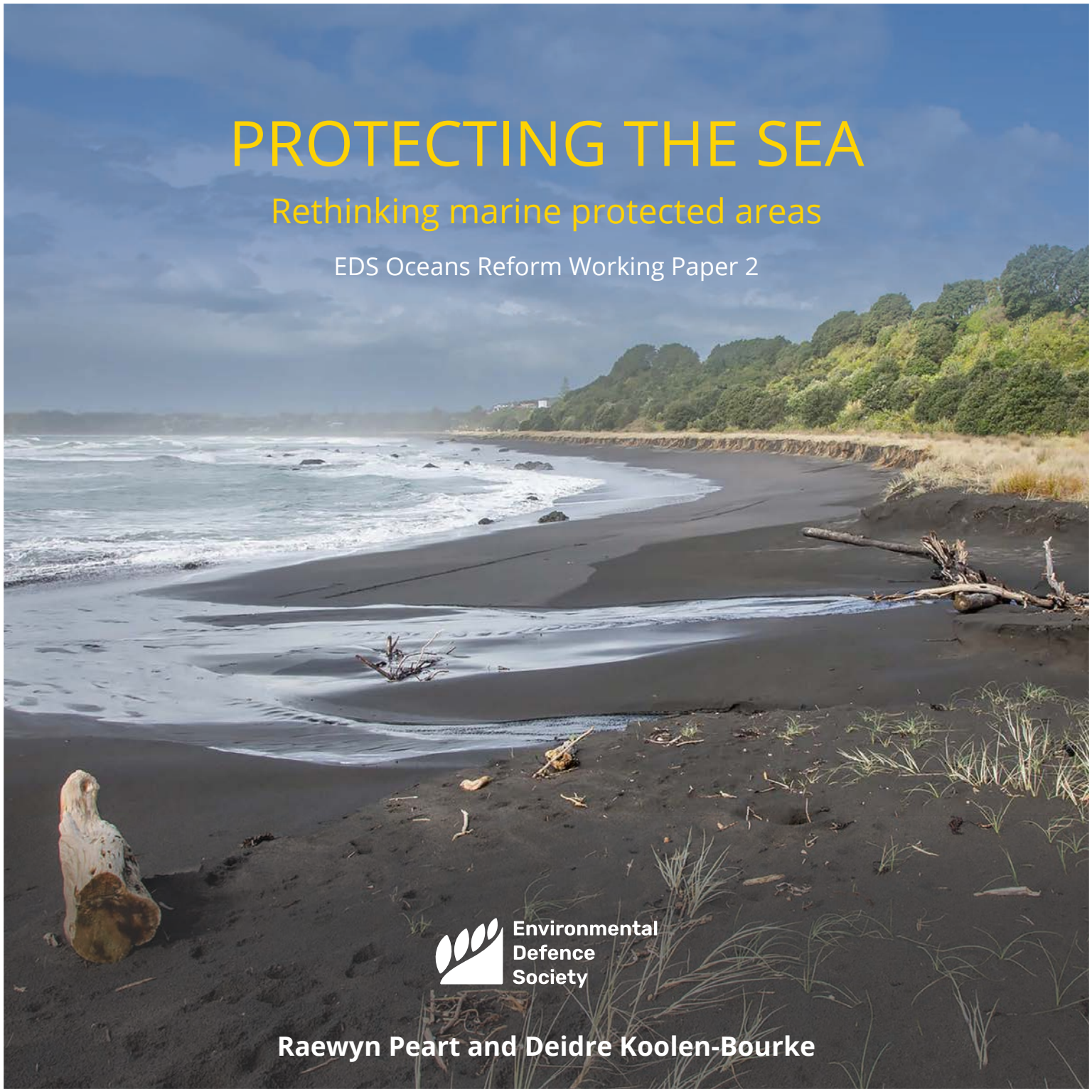

PROTECTING THE SEA

Rethinking marine protected areas

EDS Oceans Reform Working Paper 2

Environmental Defence Society

Raewyn Peart and Deidre Koolen-Bourke

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List of abbreviations

ACE	Annual catch entitlement
DOC	Department of Conservation
EDS	Environmental Defence Society
EEZ	Exclusive economic zone
EEZ Act	Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012
FM10	Fishery management area 10
HPA	High protection areas
IPCA	Indigenous Protected and Conserved Area
MACA Act	Marine and Coastal Area (Takutai Moana) Act 2011
MFE	Ministry for the Environment
MPA	Marine protected area
MPA Policy	Marine Protected Areas: Policy and Implementation Plan (2005)
MSP	Marine Spatial Planning
RMA	Resource Management Act 1991
SEMP	South east coast marine protection
SPA	Seafloor protection areas
TAC	Total allowable catch
TACC	Total allowable commercial catch
TOKM	Te Ohu Kaimoana
Treaty	Te Tiriti o Waitangi/Treaty of Waitangi

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1 Introduction

Divers exploring Cape Rodney-Okakari Point Marine Reserve

The Environmental Defence Society's (EDS) Oceans Reform Project is seeking to strengthen oceans management in New Zealand. Phase One of the project reviewed the current oceans management system, considered how the management toolkit might be improved, explored the design of oceans-related laws and institutions, and pondered what a new model might look like. The results of that work were published in the 2022 'The Breaking Wave' report.[1]

Phase Two of the project is developing more tangible propositions for change. Working Paper 1 (released in December 2024) explored experiences with, and the potential applicability of, marine spatial planning (MSP) to Aotearoa New Zealand's oceans along with initial proposals for a National MSP Framework.[2] This second working paper focuses on the development of a new marine protected area (MPA) framework. It follows on from an in-depth investigation into MPAs that EDS undertook in 2012 and published in 'Safeguarding Our Oceans'.[3]

The final Oceans Reform Project report (due mid 2025) will bring together, and further develop and refine, these analyses as well as explore other national integrative mechanisms such as an Oceans Commission, Oceans Act and National Oceans Strategy.

At the same time as preparing the working papers, EDS is undertaking three place-based case studies of marine management. The first, which focused on the Marlborough Sounds, was published in December 2024.[4] A case study on the Otago coast was released with this working paper. We will shortly be completing a case study on the Bay of Islands.

The material included in this working paper has been drawn from reviews of literature on MPAs (which is voluminous and so we have only profiled a small selection of papers here), relevant debates in Parliament as recorded in Hansard, submissions made on various MPA initiatives, and interviews with a range of parties. In total we spoke to 28 people from the commercial fishing, recreational fishing, environmental NGO, science, law and government sectors. They included people with Māori tribal connections and former Ministers of Conservation. We have included anonymous quotes from these interviews, in pink coloured boxes, to provide 'colour' to the discussion. We have not referenced these quotes to protect confidentiality.

Part One of this working paper provides a background to the topic of MPAs. In Chapter 2 we review a variety of aspects including what MPAs are, the rationale for creating them (including in the New Zealand context), when they are most successful and how MPAs relate to Te Tiriti o Waitangi/ Treaty of Waitangi (the Treaty).

Chapter 3 provides historical context, by reviewing various efforts to evolve a legislative and policy framework for MPAs, and draws out what we can learn from them. Chapter 4 reviews international approaches to MPAs including international commitments that the New Zealand government has signed up to, and the use of multi-functional MPAs.

Part Two of the working paper focuses on how we might progress MPA policy reform in New Zealand. Chapter 5 explores key areas of contention which have created road blocks to progress. Chapter 6 identifies areas where there is more convergence in approach. Chapter 7 then investigates ways to build on these convergent areas to make further progress. Our overall conclusions are summarised in Chapter 8.

Karitāne estuary which is protected by the East Otago Taiāpure

Endnotes

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2 Overview of MPAs

People enjoying Te Whanganui-o-Hei/Cathedral Cove Marine Reserve

In this chapter we traverse various approaches to defining MPAs, benefits that MPAs can provide (as identified in national and international literature), factors that support successful MPAs, and how approaches to MPAs can reflect Treaty obligations.

2.1 What are MPAs?

In broad terms, MPAs seek to provide a "safe place" for marine life.[1] The 2005 'Marine Protected Areas: Policy and Implementation Plan' (MPA Policy) 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."[2] The definition is further fleshed out in what is termed the 'MPA Protection Standard' (see spotlight).

The MPA Policy contemplates spatial areas being classified as MPAs, even if their prime purpose is not biodiversity protection, but is the consequence of a different management regime. However, it emphasises that MPAs are not seeking to achieve comprehensive marine management or other objectives (such as sustainable fisheries) although they may contribute to such broader outcomes.[3]

This approach is different to the IUCN's 2008 definition of a protected area more generally which is "a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, *to achieve the long-term conservation of nature* with associated ecosystem services and cultural values".[4] This highlights that 'nature conservation' must be the prime objective and not be incidental to another purpose. Notably, the definition emphasises the 'long-term' nature of marine protection, thereby excluding temporary and other shorter-term management measures. More recently "other effective area-based conservation measures", which are not protected areas under the IUCN definition (as they do not have nature conservation as their prime objective), have been internationally recognised as contributing to long-term biodiversity conservation goals.[5]

Spotlight on New Zealand's MPA Protection Standard

To comprise an MPA under the 2005 MPA Policy (through meeting the MPA Protection Standard), the management tool deployed must "enable" the maintenance or recovery of the site's biological diversity (at the habitat and ecosystem level) to a healthy functioning state. This includes:

(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 the biodiversity to adapt and recover in response to perturbation.[6]

In New Zealand, two types of MPAs are recognised in the MPA Policy: Type 1 (marine reserves established under the Marine Reserves Act 1971) and Type 2 (protection provided under other legislation that meets the MPA Protection Standard).[7]

It is widely acknowledged that "New Zealand has relatively low conservation categorisation, making it one of the most restricted frameworks in the world".[8] (Ataria et al, 2018)

The IUCN has long provided an internationally recognised categorisation for protected areas which recognises seven specific types (see spotlight below). Although originally developed for land-based protection, these are increasingly being applied to marine spaces. Some encompass low intensity use if consistent with conservation objectives. When compared to protective mechanisms in New Zealand, there is no clear alignment. This indicates that a rethink of New Zealand's MPA categories might be warranted, to provide a broader basket of targeted tools.

Spotlight on IUCN protected area categories (our assessment of potential alignment with New Zealand categories shown in italics)

Ia. Strict nature reserve: Strictly protected for biodiversity and also possibly geological features, where human visitation, use and impacts are controlled and limited to ensure protection of the conservation values. (*Marine reserves under the Marine Reserves Act*)

Ib. Wilderness area: Usually large unmodified or slightly modified areas, retaining their natural character and influence, without permanent or significant human habitation, protected and managed to preserve their natural condition. (*Large marine reserves under the Marine Reserves Act and significant natural areas under the Resource Management Act 1991 (RMA)*)

II. National park: Large natural or near-natural areas protecting large-scale ecological processes with characteristic species and ecosystems, which also have environmentally and culturally compatible spiritual, scientific, educational, recreational and visitor opportunities. (*Possibly large marine reserves under the Marine Reserves Act*)

III. Natural monument or feature: Areas set aside to protect a specific natural monument, which can be a landform, seamount, marine cavern, geological feature such as a cave, or a living feature such as an ancient grove. (*Outstanding natural features under the RMA*)

IV. Habitat/species management area: Areas to protect particular species or habitats, where management reflects this priority. Many will need regular, active interventions to meet the needs of particular species or habitats, but this is not a requirement of the category. (*Marine mammal sanctuaries under the Marine Mammals Protection Act 1978, habitats of significance to fisheries management, benthic protection areas, and spatial gear exclusions to protect marine mammals/seabirds under the Fisheries Act 1996, wildlife refuges, sanctuaries and management reserves under the Wildlife Act 1953, significant natural areas under the RMA)*

V. Protected landscape or seascape: Where the interaction of people and nature over time has produced a distinct character with significant ecological, biological, cultural and scenic value: and where safeguarding the integrity of this interaction is vital to protecting and sustaining the area and its associated nature conservation and other values. (*Hauraki Gulf Marine Park under the Hauraki Gulf Marine Park Act 2000*)

VI. Protected areas with sustainable use of natural resources: Areas which conserve ecosystems, together with associated cultural values and traditional natural resource management systems. Generally large, mainly in a natural condition, with a proportion under sustainable natural resource management (where low-level non-industrial natural resource use compatible with nature conservation is seen as one of the main aims). (*Possibly taiāpure and mātaitai reserves, although their prime purpose is not biodiversity protection, but recognition of rangatiratanga and fisheries rights,[9] and the special relationship of tangata whenua with traditional fishing grounds*)[10]

When compared to many other countries, the range of MPA categories recognised in New Zealand seems limited. For example:

- In California the Marine Managed Areas Improvement Act 2000 provides for state marine reserves (strictly no-take areas), state marine parks (which exclude commercial activities and restrict other uses), state marine conservation areas (which provide for limited commercial and recreational harvest), state cultural preservation areas (where important cultural objects or sites of historical, archaeological or scientific interest are protected), state marine recreational management areas (which protect recreational activities), and state water quality protection areas

(where point source waste is prohibited and non-point source pollution controlled).[11]

- The Australian Victorian State government has created 13 large 'marine national parks' and 11 smaller 'marine sanctuaries' as no-take areas along with two marine and coastal parks, two marine parks and one marine reserve which are managed as multiple use areas.[12]

- The Australian New South Wales government has created six large multiple use 'marine parks', 12 'aquatic reserves' (which have various fishing restrictions), and various land-based national parks and nature reserves which extend over estuarine and oceanic habitats.[13]

Long Bay-Okura Marine Reserve

Spotlight on ocean digital twins: Moving from static to dynamic MPAs

Most MPA processes are based on the underlying premise that marine habitats should be mapped and characterised, with the aim of protecting a representative sample of different habitat types. This approach underlies the MPA Policy where Network Design Principle 2 states that "MPAs should be designated based on a consistent approach to classification of habitats and ecosystems".[14] The approach is further developed in the 2008 'Classification, Protection Standard and Implementation Guidelines' where a classification approach is set out consisting of a hierarchy of five layers and 44 categories.[15]

Although practical (given available information), such an approach fails to reflect the dynamic nature of marine systems, and the three-dimensional interconnectedness of ocean space. In particular, species can span a wide diversity of habitats during their lifecycles and they interact with each other in complex ways. Climate change is serving to change many of these relationships in real time. An MPA network designed on a static mapping process can fail to reflect these complex and ever-changing inter-relationships.

A more dynamic systems approach is becoming possible through real time modelling, artificial intelligence and the development of 'digital twins'. Ocean digital twins are virtual and near real-time representations of the ocean system where the cyber (computer modelled) and physical systems are coupled. Measured changes to the living and non-living elements of the marine environment automatically modify their 'virtual replica'. Such twins can draw on artificial intelligence to foster continual learning, develop future scenarios, and generate optimal management reponses.[16]

A potential benefit of this approach is that land-based stressors, climate change and extractive uses could be factored into the design and management of MPAs in a dynamic and real-time manner. However, the challenge will be to design a regulatory system that can accommodate such a dynamic management approach.

2.2 Why establish MPAs?

"By protecting habitats, MPAs safeguard the vital life-support processes of the sea, including photosynthesis, maintenance of food chains, movement of nutrients, degradation of pollutants and conservation of biological diversity and productivity."[17] (IUCN MPA Guidelines, 1999)

MPAs are a response to multiple and growing pressures on ocean ecosystems and resultant negative impacts on habitats, species and ecosystem functioning. They seek to reduce these pressures, by constraining human activity within defined marine areas. MPAs can allow ecosystems to return to a more natural state (with associated increases in species diversity, abundance and size). Well-designed and managed MPAs can protect marine life within their boundaries, as well as contribute to broader oceanic health, particularly when there are spill-over effects.

MPAs are most effective when large enough to protect functioning ecosystems and when fishing or other marine activities are key stressors on marine ecosystems. It is important to note that they cannot, on their own, address land based stressors such as sediment. However, MPAs can help increase the resilience of marine ecosystems to such broader stressors and serve to highlight the need for action further up catchments.

In New Zealand, the need for MPAs is highlighted by the extent of extractive activity that occurs in the oceans and the widespread changes this has caused to marine ecosystems. They include loss of biogenic seafloor habitats, seamount habitats[18] and kelp forests, and changes to the population structure, size class and relative abundance of different species.[19] There are extensive areas of localised depletion for some species[20] and in some cases stock collapses.[21]

MPAs also support the objectives of Te Mana o Te Taiao – Aotearoa New Zealand Biodiversity Strategy which aims to achieve the following five outcomes by 2050: (1) ecosystems, from mountain tops to ocean depths, are thriving; (2) indigenous species and their habitats across Aotearoa New Zealand and beyond are thriving; (3) people's lives are enriched through their connection with nature; (4) Treaty partners, whānau, hapū and iwi are exercising their full role as rangatira and kaitiaki; and (5) prosperity is intrinsically linked with a thriving biodiversity.[22]

Intergenerational equity requires the protection of "non-extractive values and ecosystem services of the marine and coastal environment – intrinsic values, cultural values, wildness values [and] spiritual values..."[23] (New Zealand Conservation Authority)

Te Matuku Marine Reserve which protects one of Waiheke Island's largest and least disturbed estuaries

Many positive benefits are claimed for well-designed MPAs including:[24]

a) Increased abundance and diversity of species

b) Restored biogenic habitats

c) Re-established foundation and keystone species

d) Greater variation in age and size structure (including more older, larger and highly productive fish)

e) Protection of habitats of significance for fisheries management

f) More productive fish stocks in the surrounding area[25]

g) Provision of a safety net against fisheries collapse[26]

h) Increased marine ecosystem productivity

i) Greater resilience to stressors (such as sea water warming,[27] sedimentation, pollution and invasive species)[28]

j) Increased carbon sequestration

k) Increased scientific knowledge[29]

l) Provision of control sites for identifying impacts of human use (including fishing)[30]

m) Enhanced cultural, educational and recreational opportunities

n) Economic benefits through tourism and enhanced fish stocks[31]

o) Increased ecosystem services more generally.[32]

"There is value in marine reserves reconnecting people with the marine environment. If people don't know what's out there they don't care. Environmental education is massively important."

MPAs are assuming more importance as climate change disproportionally impacts already damaged marine ecosystems. As highlighted in Working Paper 1, the oceans have absorbed around 90 per cent of excess heat trapped by anthropogenic greenhouse gases, along with 25 per cent of excess carbon dioxide. Already evident, seawater warming and acidification is increasing. Marine heatwaves are becoming more frequent, intense and longer lasting pushing some marine species to the brink.[33] It is becoming increasingly urgent to support greater resilience, through limiting other avoidable external pressures in marine ecosystems, so they can adapt and survive.

It has to be acknowledged that MPA benefits are often disputed, particularly by those impacted by their creation, including indigenous peoples and the fishing sector. In some cases, no-take protection has been termed 'ocean-grabbing', when it arbitrarily dispossesses traditional resource users from marine space.[34]

Fishers argue that a well managed fishery will not benefit from MPAs, and in fact may be harmed by them, through the removal of productive space from harvesting. This is on the basis that good fisheries management achieves the 'maximum sustainable yield' or optimal productivity of the fish stock, and at that point marine protection adds little.[35] In addition, not all MPAs will result in spillover into adjacent fisheries, as this is dependent on reserve size, shape and location as well as the life cycles and characteristics of the species they protect (including how mobile they are).[36] MPAs will likely make the most contribution to fisheries when there are recruitment, productivity and habitat issues that cannot be effectively addressed by harvest level adjustments alone.

This raises the question of how well fisheries in New Zealand are managed and what the role of MPAs might be (if any) in supporting healthy fish stocks. For a start, it is clear that not all fish stocks managed under the quota management system are healthy. This was highlighted in our Marlborough Sounds case study where we found depletion of green-lipped mussels, pilchards, blue cod, scallops, pāua, rock lobster and hāpuku.[37] It was also surprising to find that the spillover effect of snapper larvae from the small but historically productive Cape Rodney-Okakari Point Marine Reserve in the Hauraki Gulf (covering just 1.3% of the study area) was directly linked to 10.6% of the juvenile snapper population in surrounding waters (covering some 398 km^2).[38]

Research on the rock lobster stock in Fiordland (CRA8) credits the implementation of a MPA network with supporting the rapid rebuild of the heavily depleted stock, when compared to the slower rebuild in the adjacent CRA7 fishery on the Otago coast, which lacked similar protection (although benefited from increased larvae production from CRA8).[39] However, as the MPAs were implemented at the same time as more

conservative harvest settings, it is difficult to disentangle the individual effect of each measure.

There is evidence that New Zealand fishers *believe* there is a spillover effect from MPAs demonstrating what is termed the 'rebound' effect. This was highlighted in a study of trawler behaviour in the vicinity of five newly established offshore MPAs (a marine reserve, two benthic protection areas, one closed seamount area and one marine mammal sanctuary) which found that, immediately after each MPA was announced, more vessels fished in the vicinity of the MPA and catch levels increased. As the researchers explained:[40]

> Little or no trawl fishing activity occurred within the MPA boundaries prior to their implementation across all five study sites, yet fishing activity and total biomass extraction increased in the wider area surrounding these MPAs after designation.

However, it does need to be acknowledged that not all MPAs are successful[41] and they are only one tool in the marine management toolbox. MPAs need to be well-designed and supported by complementary measures to ensure overall oceans health. Such measures include effective fisheries management under the Fisheries Act, good management of other marine uses under the RMA, and robust land-based management. We discuss these critical aspects further below.

2.3 When are MPAs most successful?

"Not all marine reserves will be successful but some will be. It's not like tuning a precise machine, as it's nature."

Several analyses have been undertaken of a range of MPAs worldwide to identify factors that lead to positive outcomes. For example:

- A 2013 study, which reviewed 74 publications between 2000 and 2013, identified meaningful community engagement, good MPA design, robust governance and strong enforcement as important for positive biological and socio-economic outcomes.[42]

- A 2014 study investigated 87 MPAs world-wide and concluded that conservation benefits increased exponentially for MPAs that were no take, well-enforced, older than 10 years, and larger than 100km^2.[43]

- A 2016 study reviewed 75 MPAs in the Mediterranean Sea and identified high levels of enforcement and fishermen engagement in management as being the most important success factors in achieving healthier fish stocks, higher incomes for fishers, and greater social acceptance of management practices.[44] In those MPAs, no-take areas are typically surrounded by a buffer zone where small scale fishing is permitted and can benefit from spillover effects.

- A 2018 review of 27 MPAs world-wide, based on first-hand knowledge, identified high levels of stakeholder participation as the most important element for MPAs to achieve their objectives followed by supporting legislation, leadership, explicit objectives, and strong social networks and communication. Factors that led to failure were foremost lack of surveillance, lack of (or delayed) stakeholder engagement, institutional rivalry, low legal compliance and political interests holding sway over ecological needs.[45]

- A 2024 review of 59 MPAs in California found that older MPAs with greater habitat diversity had greater fish biomass, with the size of individual MPAs less important in achieving this.[46]

International studies indicate that strong stakeholder engagement, good design with clear objectives, and strong enforcement are key to MPAs achieving positive outcomes.

2.4 MPAs and the Treaty

Article 1 of the Treaty empowered the Crown to govern and make laws, including over the marine area, and in particular to protect Māori communities from the harmful effects of settlement. This power was expressed in the Māori version of the Treaty as kāwanatanga.[47]

At the same time, Article 2 guaranteed "te tino rangatiratanga" over traditional lands and taonga including fisheries. As the Waitangi Tribunal has explained, this includes three key elements: (1) Authority or control; (2) The exercise of authority in a way that recognises its spiritual source, and the spiritual source of the taonga concerned, with the object of maintaining the tribal base for future generations; and (3) Applied not only to the taonga but to people within the kinship group including their access to resources.[48]

Read together there is an inherent obligation on the Crown to effectively legislate for the protection of the marine environment, particularly where degradation threatens to "adversely affect the continued use or enjoyment of [traditional] resources whether in spiritual or physical terms".[49] Te Mana o Te Taiao – Aotearoa New Zealand Biodiversity Strategy reinforces this by highlighting that mātauranga Māori is lost when a species vanishes, creating the need to enhance and regenerate biodiversity in order to support the regeneration and continuation of mātauranga.[50] So under the Treaty, marine protection is important, but it needs to be undertaken in a way that does not undermine Māori authority over their own resources.

The Waitangi Tribunal examined the Treaty clauses in detail, as they applied to the marine area, in the Muriwhenua Claim. This alleged breaches of the Treaty through legislation (including the Marine Reserves Act 1971 and Fisheries Act 1983), creation of individual transferable fisheries quota, and the depletion of marine life (amongst many other things). These had collectively interfered with Māori fisheries and fishing rights.[51]

The claim was lodged in June 1985 by Ngāti Kuri and Te Aupouri. It was precipitated by a discussion document issued by the Ministry of Agriculture and Fisheries which proposed to establish extensive marine reserves within the Northland area. They included prohibiting fishing from Kapowairau (on the northern coast of Cape Reinga) down to Waitangi in the Bay of Islands.[52] These were described by the claimants as being shaped "as though the northern tribes did not exist and as though the Treaty had never been written".[53]

A major finding in the inquiry was that Māori "considered themselves, and must be considered as retaining the authority over [the seas]".[54] The Tribunal did not inquire into marine reserves in any depth, being much more focused on the pending privatisation of fishing rights through the grant of quota, but it did state:[55]

> We wonder however how far marine or any other form of management planning can proceed without prior inquiry into the nature and extent of Māori fishing interests and the impact of the Treaty of Waitangi.

Since the Muriwhenua case concluded there have been significant legal developments in recognising Māori rights and interests in the marine area. They include:[56]

- Settlement of customary commercial fishing rights through the grant of quota and financial redress (including to purchase a half share in Sealord)
- Recognition of customary non-commercial fishing including through providing for the establishment of taiāpure, mātaitai reserves and temporary fisheries closures
- Settlement of aquaculture rights through the provision of settlement space and/or financial compensation
- Common law and statutory recognition of some forms of customary rights over the marine area.

As a result, iwi are now a significant player in the country's marine economy, foremost as owners of commercial fishing quota. A 2019 study found that, in addition to Treaty settlement quota (comprising 10 per cent of total quota and valued at $314 million), iwi had acquired a similar amount of non-settlement quota, bringing the total amount of Māori quota holdings to 20 per cent and valued at $636 million. This stake in commercial fishing is continuing to increase with over 60 per cent of Māori organisations actively acquiring more quota.[57]

The exercise of non-commercial customary fishing rights has been more controversial, with iwi and hapū who propose the establishment of taiāpure and mātaitai, frequently encountering opposition. We were told that it was not unusual for proponents to come under orchestrated attacks, and it notably took seven years to establish the East Otago Taiāpure, after the proposal divided the community.[58]

> "Concepts of mātaitai, taiāpure, kawenata, and rāhui should be integral to the development of marine protected areas, to recognise customary non-commercial rights."[59] (New Zealand Conservation Authority)

Many iwi also have interests in marine farming, with 13 per cent of Māori entities holding licences and eight per cent undertaking farming activities themselves (as at 2019). However, only one iwi (Ngāi Tahu) holds marine mammal watching permits (in Kaikōura and Akaroa). In addition, only 14 per cent of iwi had established taiāpure or mātaitai reserves, highlighting the latent potential of these customary management tools.[60] Customary rāhui and temporary spatial closures under sections 186A and 186B of the Fisheries Act are also utilised from time to time. All these Māori interests in the marine space (along with cultural and spiritual associations with the area) are highly relevant when considering MPA policy and its impact on Treaty obligations.

The Marine and Coastal Area (Takutai Maoana) Act 2011 (MACA Act) directly interfaces with marine protection and, although not providing for full customary rights,[61] still provides a strong role for Māori. When making a decision on marine reserves or other conservation processes (such as declaring a marine mammal sanctuary or permitting marine mammal tourism), the Director-General of Conservation must have "particular regard" to the views of affected iwi, hapū or whānau.[62] If the marine reserve or other proposal is within an area subject to a customary marine title then the title holding group must give permission before it can proceed (see spotlight).[63]

Spotlight on the Marine and Coastal Area (Takutai Moana) Act 2011

The MACA Act sets as a starting point that no-one owns or is capable of owning the "common marine and coastal area".[64] It then introduces a formal framework to enable Māori customary rights in the area to be formally recognised and protected. The redress options under the Act are customary marine title, wāhi tapu protection and protected customary rights. Numerous applications for customary marine title have been lodged but few have been determined.[65] Customary marine title confers a basket of rights including a RMA permission right (with permission required before activities can proceed in the area), a conservation permission right (with permission required for the establishment of marine reserves), a protection right for wāhi tapu, a right to be consulted on changes to the New Zealand Coastal Policy Statement, and ownership of minerals (other than petroleum, gold, silver and uranium).[66] Recognition of a protected customary right (through a customary rights order) protects customary activities, uses and practices so they do not require consent.

Although the Marine Reserves Act makes no reference to the Treaty, it has been directly applicable to the Act's administration since 1987, by virtue of section 4 of the Conservation Act 1987 (which requires the Act to be "interpreted and administered" so as to "give effect to the principles" of the Treaty). This requirement applies to the administration of the Marine Reserves Act by virtue of section 6 (Department of Conservation (DOC) functions) and schedule 1 (the enactments "…DOC is responsible for administering" which includes the Marine Reserves Act).

Joseph et al (2020) provide some insights into how the Treaty and tikanga Māori can be recognised in the context of marine protection. Potential measures include:[67]

- Recognising the mauri of the area
- Ensuring meaningful iwi and Māori involvement in all stages of MPA establishment
- Providing for tikanga Māori (see spotlight) in the creation of MPAs
- Integrating mātauranga and tikanga Māori with mainstream science
- Providing for co-management or devolved management of MPAs with iwi and/or hapū
- Emphasising the role of Māori as kaitiaki
- Ensuring customary fishing activities are appropriately accommodated.

Spotlight on tikanga Māori

Tikanga is the law and custom of specific iwi and hapū. It is underpinned by the core values of whanaungatanga (kinship), mana (leadership), tapu (social control), utu (reciprocity) and kaitiakitanga (obligation to care for one's own).[68] Whanaungatanga infuses the world view of Māori, referring not "only to family ties between living people, but rather to a much broader web of relationships between people (living and dead), land, water, fauna and flora, and the spiritual world of atua (gods) – all bound together through whakapapa.[69] (Waitangi Tribunal)

It is also important to note that international agreements (to which New Zealand is a party) require protected areas to be effectively and equitably managed with "full participation of indigenous and local communities" and "recognizing and respecting the rights of indigenous peoples" (see section 4.1 below). Overall, this means that Māori need to be "respected partners" in marine protection efforts and indigenous knowledge, rights and interests should inform marine decision-making.[70]

"… the future survival of the marine and coastal seascape of Aotearoa New Zealand … depends on how we effectively and appropriately implement shared co-governance and concurrent jurisdiction between the Crown, local government, Māori and other key stakeholders …"[71] (Joseph et al, 2020)

Endnotes

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3 Past MPA reform efforts

University of Auckland marine laboratory at Leigh which was the impetus for the Marine Reserves Act

In order to develop tangible proposals for successful MPA reform, it is important to understand where we have come from and how previous efforts at reform have played out, so we can build on that experience. This is the focus of the following sections.

3.1 Narrowly-framed Marine Reserves Act

New Zealand is said to be the first country to adopt no-take MPA legislation. A Marine Reserves Bill was introduced into Parliament, in April 1970, by the then Minister of Marine and Fisheries, National Party MP Allan McCready. The scope of the legislation was intentionally narrow. It enabled "limited areas" to be set aside to preserve marine life and habitat "so that they may be studied scientifically and enjoyed by the public".[1] The Bill was passed into law in 1971, prior to the country declaring an exclusive economic zone (EEZ) in 1978,[2] so necessarily only applied to the country's coastal waters.

> "We were in my view at the leading edge of MPAs in 1971 when the legislation passed. It was a great effort. Bill Ballantine [University of Auckland marine scientist] did great work."

The underlying concept was that marine reserves would enable scientific work to be undertaken without disturbance from fishing. The reserves would apply to a "reasonably limited area" and were definitely "not intended to take over vast areas".[3] Some MPs considered the legislation did not go far enough as the areas to be protected would be "extremely limited". Nevertheless, it was seen as a "first step" that would at least help protect sites "of real scientific interest."[4] Notably, this first step is still the governing law more than 50 years later.

Only limited categories of parties were able to lodge applications for marine reserves. They comprised any university, the then National Parks Authority, a reserves board administering adjacent land and "any incorporated society or other body corporate engaged in or having as one of its objects the scientific study of marine life or natural history."[5] A later amendment added iwi and hapū with tangata whenua status over the area, and the Director-General of Conservation, to the list.

The legislation provided broad rights of objection and protections for existing rights and interests. A marine reserve could only be declared, in the face of objection, if it did not "interfere unduly" with adjacent land, navigation and commercial fishing and did not interfere unduly with or "adversely affect" recreational activities.[6] Notably, no mention was made of Māori customary fishing. In fact, Māori rights and interests did not feature at all except that owners of adjacent Māori land were to be notified of a marine reserve proposal along with other landowners.

Overall, this means that recreational activities are given greater protection under the Marine Reserves Act than other interests. Given the very narrow scope and purposes of the Act, some MPs felt that these provisions were unnecessary. One asked "how can it be suggested that

limited [scientific] activities on that scale seriously interfere with mining rights or commercial fishing?"[7]

Spotlight on meaning of "interfere unduly" and "adversely effect"

In 2010, the Minister of Conservation declined an application for a marine reserve in Akaroa Harbour on the basis that it would "unduly interfere with or adversely affect existing recreational fishing". The Akaroa Marine Protection Society, which had proposed the marine reserve, challenged the Minister's decision on judicial review in the High Court. Justice Whata confirmed earlier court decisions (relating to impacts on commercial crayfishers from the establishment of the Te Tapuwae o Rongokako Marine Reserve – see spotlight below) that "undue" means "unjustified or unwarranted in a qualitative sense". It requires a "balancing of the effect on fishers against other values involved".[8] This included consideration of the wider public interest and overall public advantages which flow from the reserve.[9] It means that significant public benefits can trump impacts on fishing interests. The judge went on to find that the "adversely affect" threshold should be applied in a similar manner to "interfere unduly" and that "the Minister must be satisfied that the adverse effect would be both excessive and unjustified" before turning down the proposal.[10] The Minister's decision was overturned and the marine reserve was finally established in 2014.

When the Act first passed, the Minister of Marine (who had oversight of a wide range of marine matters including fishing and navigation) was solely tasked with recommending the making of an Order-in-Council to create a marine reserve. When the Marine Reserves Act was amended by the Conservation Law Reform Act, in 1990, the Minister of Conservation took on the recommendatory role, but was now required to obtain the concurrence of the Ministers of Transport and Fisheries.[11]

The Act initially provided for marine reserves to be managed by local committees. Appointed by the Minister, these comprised five members including a Marine Department officer and a person qualified in marine research. Committees could inquire into and report to the Minister on any matter relating to the reserve and marine life "within or outside" it; recommend the appointment of reserve rangers; authorise taking of marine life for scientific purposes; and make bylaws (subject to approval by the Minister).[12]

In the face of some opposition, the committees were abolished in April 1990 under the Conservation Law Reform Act, with DOC assuming management responsibility for marine reserves.[13] The power to make bylaws was repealed at the same time, with any rule changes for marine reserves now requiring regulations.[14] This was in stark contrast to reserves on land, where under the Reserves Act 1977, the ability to establish management committees and boards, and delegate powers and functions to them (including bylaw making powers) remained.

> "I am concerned that the Government is abolishing marine reserve management committees, which of course, led to the establishment of the marine parks... the [Conservation Law Reform] Bill takes away committees that led to the establishment of ... the Goat Island marine reserve, and the like."[15] (Roger Maxwell, National Party MP)

When the Conservation Law Reform Act made these sweeping changes, almost two decades had passed since the Marine Reserve Act came into force, and only two marine reserves had been established. Both were small and only one was fully 'no-take'. The first was at Cape Rodney-Okakari Point (in 1975) and the second around the Poor Knights Islands (in 1981). Some forms of recreational fishing were permitted in the Poor Knights Islands marine reserve, for the first 17 years of its operation, but all fishing was excluded after it became clear this was significantly impacting marine life.[16]

There was evident reluctance to use the Marine Reserves Act during its early years. Marine protection was also put in place at Tawharanui in 1981 (which was no-take) and Mimiwhangata in 1983 (where some recreational fishing was permitted), but this was effected under the now repealed Harbours Act 1950 and Fisheries Acts 1908 and 1983. Even after DOC took over responsibility for marine conservation, in 1987, little progress was made (see spotlight). However, Tawharanui became a marine reserve in 2011 and Mimiwhangata was finally protected as a no-take area, in 2023 (under the Northland regional coastal plan) after an earlier effort to turn it into a marine reserve had failed.[17]

Mimiwhangata which is now protected under the Northland Regional Coastal Plan

Spotlight on reasons for poor progress with marine reserve creation

In 1991, Bill Ballantine who had been a strong proponent for the Marine Reserves Act (and the creation of marine reserves more generally) summed up the reasons why little progress had been made since DOC had taken over the mandate for marine conservation in 1987:[18]

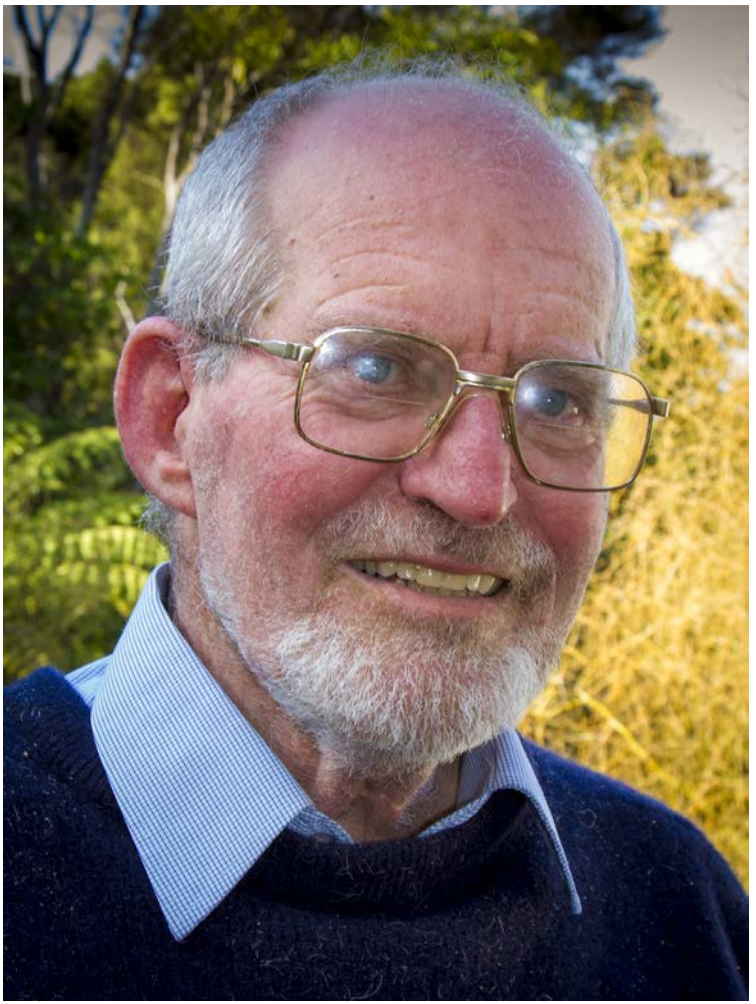
1. A lack of commitment at the political level – senior politicians had yet to regard marine reserves as urgent or important.
2. A lack of marine experience in the department – most staff were (naturally) recruited for their terrestrial experience.
3. Insufficient funding for 'new' activities – no significant funds were transferred from the Ministry of Agriculture and Fisheries for marine reserves.
4. Inadequacies in the existing legislation – the Marine Reserves Act was written to permit special cases, not to compel general action.
5. The restructuring of the department after only eighteen months operation – including the abolition of the coastal and marine directorate.
6. Excessive fears over public reaction which is still unknown and hence particularly inhibiting to sensitive administrators and politicians.
7. Simple lack of administrative experience – only two marine reserves had ever been created in New Zealand, both a decade ago, and by different departments.
8. Inappropriate comparisons to land reserves – the creation of more reserves on land, with over a thousand reserves already in existence, is mainly a matter of fine tuning. In the sea, with only two reserves, the general policy is still to be decided.

Ballantine reiterated "None of these factors separately would have prevented rapid action but in combination they have been very effective in slowing progress to a crawl. At the time of writing *[November 1989]* it has not even been possible to create the Kermadec Is. marine reserve which was proposed by the Ministry of Agriculture and Fisheries as long ago as 1985".

3.2 Stalled Marine Reserves Bill

In 2000, the government initiated an ocean policy process along with a review of the Marine Reserves Act. This was under a newly elected Labour-led minority coalition government, which included the Alliance Party, and received support from the Green Party.

By that time (almost 30 years after the Marine Reserves Act had come into force) a total of 16 marine reserves had been established around the country. Not surprising, given the original intent of the legislation, they were mainly small discrete areas. The one exception was a large marine reserve that was finally established in 1990 around the remote Kermadec Islands (see Figure 3.1).



Bill Ballantine shortly before he passed away in 2015 at 78 years of age. He was known as the "father" of marine reserves and was widely recognised internationally for his efforts in marine conservation

Marine Reserve	Date Gazette/ Order	Government	Size (ha)
Cape-Rodney-Okakari Point	November 1975	Labour (Rowling)	547
Poor Knights Islands	February 1981	National (Muldoon)	1,890
Kermadec Islands	October 1990	Labour (Moore)	748,000
Kapiti	April 1992	National (Bolger)	2,167
Tuhua (Mayor Island)	December 1992	National (Bolger)	1,060
Te Whanganui-A-Hei (Cathedral Cove)	December 1992	National (Bolger)	840
Long Island – Kokomohua	March 1993	National (Bolger)	619
Piopiotahu – Milford Sound	September 1993	National (Bolger)	690
Te Awaatu Channel	September 1993	National (Bolger)	93
Tonga Island	October 1993	National (Bolger)	1,835
Westhaven (Te Tai Tapu)	April 1994	National (Bolger)	536
Long Bay – Okura	October 1995	National (Bolger)	980
Moti Manawa – Pollen Island	October 1995	National (Bolger)	501
Te Angiangi	July 1997	National (Bolger)	446
Pohatu	May 1999	National (Shipley)	215
Te Tapuwae O Rongokako	October 1999	National (Shipley)	2,452

Figure 3.1 Marine reserves established within 30 years of the Marine Reserves Act coming into effect

In January 2002, Conservation Minister (and Alliance Party MP) Sandra Lee announced that the Government would be promoting a Bill to overhaul the Marine Reserves Act. Hailed as being "the most significant advance in conservation legislation" in more than a decade, it was intended to progress the objectives of the country's first Biodiversity Strategy (finalised in 2000) and help meet national commitments under the Convention on Biological Diversity.[19]

A Marine Reserves Bill was duly introduced into Parliament in June, just prior to the July general election, at which Minister Lee retired from politics. Labour subsequently formed a coalition government with the Progressive Party, with confidence and supply support from United Future. The Bill had its first reading in October 2002. The new Minister of Conservation, Labour MP Chris Carter, reiterated the urgency to establish a network of marine reserves to meet international and national targets of covering 10 per cent of the country's marine environment by 2010.[20]

> "Marine reserves provide our children and grandchildren with the opportunity to visit majestic and unspoilt underwater worlds teaming with plants, fish, and other wildlife. Like the National Parks Act and the Reserves Act on land, a fundamental principle is that people have free access to enjoy these protected areas as long as the natural values are not harmed."[21] (Chris Carter, Minister of Conservation on the first reading of the Marine Reserves Bill)

The Minister explained that the Marine Reserve Act's processes were cumbersome and ill defined. The process for establishing marine reserves was invariably beset with "significant delays … despite proposals fully meeting the criteria for reserve status". Proposals were often controversial with considerable opposition from fishers and others. All this had created a backlog of proposals and the amount of marine area protected by marine reserves remained minimal.[22]

People enjoying the Cape Rodney-Okakari Point Marine Reserve

Other deficiencies in the current legislation, highlighted by the Minister, included the lack of any specific provision for meeting Treaty obligations and poor linkages with recent environmental legislation (such as the RMA). Reserves could not be created beyond the 12-mile limit meaning "there are few protection mechanisms for marine ecosystems within the exclusive economic zone."[23]

Spotlight on the Marine Reserves Bill 2002

The Marine Reserves Bill was intended to modernise New Zealand's marine conservation regime. In particular it:[24]

- Set a new purpose focused on conserving "indigenous marine biodiversity"
- Clarified that there was to be no fishing in marine reserves (thereby avoiding the Poor Knights Islands situation)
- Applied the precautionary principle
- Extended the marine reserve protection mechanism into the EEZ
- Permitted any party to apply for a marine reserve
- Streamlined the process for applying for and approving marine reserves
- Removed the requirement for the Ministers of Fisheries and Transport to concur
- Introduced a concession system for commercial activities similar to that for national parks
- Enabled advisory committees and management boards to be established.

The Bill made much greater provision for Māori, than in the Marine Reserves Act, including a Treaty clause (requiring the principles of the Treaty of Waitangi to be "given effect to"). It also required the Minister of Conservation to take into account the effects of a proposed reserve on customary fishing and the relationship of tangata whenua with the site; tangata whenua were to be consulted from an early stage of developing reserve proposals; and there were clear requirements for tangata whenua to be represented on any reserve committee.[25]

The ACT party was fully opposed to the Bill. The National Party, United Future and NZ First had some reservations but agreed to support it through to select committee. There was broad agreement that greater protection, and increased mechanisms to support conservation, were needed. But there was dispute over how this was best achieved. Most MPs considered details could be worked through in select committee.

"One of the main tensions in this bill is between preserving the sustainable catch for those interested in recreational or commercial fishing, while also maintaining the wonderful biodiversity that we have seen becoming depleted so much more rapidly over the last few years."[26] (Dr Paul Hutchison, National Party MP)

Specific concerns raised about the Bill during its first reading included:

1. The application of the precautionary principle. ACT characterised this as an "if we are in doubt about whether an activity is sustainable, we just want to shut it down" approach.[27]
2. Extension of the regime into the EEZ and the impact "massive exclusion zones" would have on commercial fisheries.[28]
3. Impacts on commercial, recreational and customary fishers more generally.[29]
4. The absence of a compensation regime for commercial fishers.[30]
5. The Minister of Conservation's dominant role in decision-making and the risk of policy being overly influenced by "preservation" groups.[31]
6. The inclusion of a Treaty clause, without explaining what it meant, including for customary fishers.[32]

"If the Government locks up 10 percent of our productive marine environment, it could greatly damage our fishing industry and deny recreational and customary fisheries their right to fish."[33] (Brian Connell, National Party MP)

Despite such concerns, the Bill proceeded to select committee in October 2002, and a public submissions process was initiated. A total of 170

submissions were received with 98 oral submissions being heard by the committee.[34] It then received advice on a number of contentious issues including extension to the EEZ, minerals activities, interface with the RMA, concurrence decision-making, and providing an opportunity for appeal.[35] But progress was stymied by the foreshore and seabed controversy, which erupted in June 2003 (see spotlight), and had a chilling effect on any progress on oceans matters for many years.

Spotlight on foreshore and seabed controversy

In a decision released on 19 June 2003, the Court of Appeal found that the Māori Land Court had jurisdiction to determine whether the foreshore and seabed (which extended seawards 12 nautical miles) was Māori customary land.[36] Within a week, government had announced that it would legislate to protect public rights of access to and use of the coast, while at the same time protecting customary rights.[37] In the face of very strong Māori opposition, the government passed the Foreshore and Seabed Act, in November 2004. This led to much protest including the late Dame Tariana Turia, a Minister in the Labour-led government, resigning on the basis that the move was outright confiscation of Māori land.

During the delay resulting from the foreshore and seabed controversy, politics around the Bill shifted. United Future, which provided confidence and supply support for Labour-led governments after the 2002 and 2005 general elections (and had agreed to support the Bill to select committee) became a stronger opponent of the Bill. In April 2005, United Future Leader Peter Dunne announced that he was "pleased to be able to stop the Marine Reserves Bill from going through to the House … because it is an ill-conceived bill and still allows for the Department of Conservation to take too many heavy-handed measures in providing marine reserves all over the country."[38] His concern was that the Bill would open the floodgates to environmental groups pushing for more and more marine reserves.[39]

"The Marine Reserves Bill was possibly the longest running Bill sitting on the order paper. No-one was wanting to take it off the parliamentary order paper but no-one was willing to progress it either. It was left sitting there as a symbol of national disfunction."

The select committee had resolved to suspend work on the Bill, a month earlier, and requested a number of extensions to its report back date.[40] In December 2008, the incoming (National) Minister of Conservation Tim Groser reiterated the Government's commitment to review the Marine Reserves Bill and get it passed in its first term.[41] This proved overly optimistic. National was a minority government with confidence and supply support from the Māori Party along with parties that had opposed the Bill (ACT and United Future). This political arrangement continued after the 2011 general election, at which time the Bill was still languishing at select committee.

Spotlight on 2011 MPA gap analysis

While the Marine Reserves Bill languished in Parliament, progress in expanding the country's MPA network was slow. A 2011 gap analysis reported that 6.9 per cent of the territorial sea was protected in Type 1 MPAs, increasing to 8.1 per cent when Type 2 MPAs were included. However, 97 per cent of the Type 1 MPA coverage (and 83% of total MPA coverage) was in two remote areas, the Kermadec Islands and the Subantarctic Islands. *Other than the Fiordland bioregion, which had around 1 per cent protection, the remaining coastal bioregions in the territorial sea had 0.3 per cent or less*.[42]

In 2011, the MACA Act repealed the earlier Labour Government's highly controversial foreshore and seabed legislation, and sought to put to bed the controversy that surrounded it. The way was now potentially clear for MPA reform to proceed. National withdrew the Marine Reserves Bill from Parliament in 2013, with the promise of a new bill, after Nick Smith became Minister of Conservation. A discussion document on new legislation was finally released in January 2016.

Statute of Aotea waka in Patea, Taranaki highlighting the integral connection between Māori culture and the sea

3.3 Progress through collaboration

As the Marine Reserves Bill became bogged down in politics, DOC started promoting collaborative processes for identifying and creating networks of MPAs. The Department also took a more proactive approach in considering other tools that could be deployed to spatially protect marine areas (including those shown in Figure 3.2).

The initial framework for this new approach was set out, in 2005, in the DOC and Ministry of Fisheries jointly developed MPA Policy. This was intended to provide "an integrated process, including regional consultation, for establishing a network of marine protected areas around New Zealand".

Implementation was to be underpinned "by a commitment to minimise the impact of new protected areas" on existing users and Treaty settlement obligations. Planning for new areas was to be "science-based, using a consistent approach to habitat and ecosystem classification" with an inventory compiled to identify gaps in the network. The overall goal was still to have 10 per cent of the country's marine environment with some form of protection by 2010.[43]

The MPA Policy was fleshed out, in 2008, by the 'Marine Protected Areas: Classification, Protection Standard and Implementation Guidelines'. These provided for the establishment of 14 community-based marine protection fora which were to be tasked with identifying representative networks of MPAs in each of 14 coastal biogeographic regions around the country. This regional community-based approach drew on the success of the Fiordland collaborative process which had resulted in the establishment of the Fiordland Marine Guardians and a network of MPAs in Fiordland.[44]

Spatial tool	Statute	Restrictions	Area	Decision-maker
Marine reserves	Marine Reserves Act 1971	No-take areas where all extractive activities are prohibited	Territorial sea	Minister of Conservation (with concurrence from Fisheries and Transport Ministers)
Marine mammal sanctuaries	Marine Mammals Protection Act 1978	Variable	Territorial sea and EEZ	Minister of Conservation
Submarine cables and pipeline protection zones	Submarine Cables & Pipelines Protection Act 1996	No fishing or anchoring except for research vessels (which must not attach to the seabed)	Territorial sea and EEZ	Minister of Transport
Sustainability measures	Fisheries Act 1996	Various, can include gear restrictions and spatial fishing closures	Territorial sea and EEZ	Minister for Oceans and Fisheries
Regional coastal plans	Resource Management Act 1991	Various, can exclude fishing for biodiversity protection	Territorial sea	Regional councils and Environment Court
Regulations	Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 (EEZ Act)	Various	EEZ	Minister for the Environment
Customary management: mātaitai reserves, taiāpure, rāhui	Fisheries Act 1996 and customary fishing regulations	Various	Territorial sea	Iwi and hapū Minister for Oceans and Fisheries

Figure 3.2: Potential spatial marine protection tools

However, only two fora were established before further implementation of the MPA policy was put on hold. The first was the West Coast Marine Protection Forum, set up in 2005, followed by the Sub-Antarctic Regional Marine Protection Planning Forum formed in 2008. These notably covered areas with a small or no resident population, thereby reducing the likely opposition to marine protection, although also avoiding marine areas where pressures were most acute.[45] Both were established under a Labour-led government but reported back in 2010 to a National-led government. Networks of MPAs in both areas were finally established in 2014.

A third MPA forum was established in 2014, under a National-led government, for the South-east coast of the South Island (SEMP). This provided recommendations in 2018 to a Labour-led government, which undertook statutory processes before approving six marine reserves.[46] However, the Labour Party lost power in the 2023 general election before the reserves were confirmed by Order in Council. The proposals now rely on a National/ACT/NZ First coalition government for implementation. To complicate matters further, the marine reserves are currently subject to legal proceedings in the High Court.[47]

Other collaborative processes, initiated by the community, also produced recommendations for MPAs during this period including in Kaikōura (2012) and the Hauraki Gulf (2016). The Fiordland, Sub-Antarctic Islands and Kaikōura networks were implemented through bespoke legislation.[48] More than eight years after consensus recommendations on a MPA network were provided for the Hauraki Gulf, special legislation to create them was (at the time of writing) awaiting a Third Reading.[49]

Spotlight on reviews of collaborative marine planning processes

In a 2018 article, a group of researchers explored the role of participation and collaboration in 13 case study processes which had sought to identify and implement MPAs around the country. They concluded "our analysis has shown that MPA planning in Aotearoa NZ has evolved from previously adversarial processes into more collaborative ones that are accompanied by improvements in efficiency and broad support for MPA implementation."

The researchers credited this shift to the "increasingly inclusive and holistic decision-making processes utilized by tangata whenua and stakeholder forums". They emphasised the need to consider the role of MPAs within the broader social and ecological system rather than treating them just as a biodiversity protection tool.[50]

In 2019, the Controller and Auditor-General reviewed collaborative marine planning processes used in Kaikōura and for the SEMP.[51] The scope of the Kaikōura process was broad, being hapū initiated, designed and led, with support provided by DOC.[52] The SEMP was initiated by the then Minister of Conservation after which DOC and the Ministry for Primary Industries established an iwi and stakeholder forum tasked with implementing the MPA Policy for the south-east coast.

Unlike in Kaikōura, the ambit of the SEMP forum's deliberations was intentionally constrained to MPAs only, with other environmental issues impacting the marine area excluded from the agenda. In particular, the forum's terms of reference explicitly stated that "the Forum should not be diverted by Resource Management Act, aquaculture or fisheries management issues".[53]

The Auditor-General's report found such a constrained focus to be counter-productive, stating that "aspects of the implementation guidelines are too restrictive ....[and] make it difficult to achieve New Zealand's marine biodiversity protection objectives". The report went on to state, "in my view, New Zealanders would value an approach that encourages and enables communities to better support marine protection measures. A more flexible way needs to be found to balance the views and values of those with an interest in the marine environment". The report concluded by urging government agencies to consider how MPA reform could support greater collaboration between parties.

In 2024, a group of researchers published an analysis of the Kaikōura process and concluded that phase 1 (when Te Korowai guided the development of the strategy) embraced a governance structure which "reflected the local community's values and engaged in an embedded, 'bottom-up', and inclusive decision-making process". However, when the outcomes were formalised in legislation and the Kaikōura Guardians established, the governance structure became more rigid and top-down, and struggled to deliver benefits for the community or the environment.[54]

It is evident that collaborative processes have been a key driver behind the expansion of the MPAs since 2000 (see Figure 3.3). Although a number of small individual MPAs have been created during the past 25 years (and a large one around the Auckland Islands), by far the most progress around the mainland coast has been made via collaboration. However, by 2014, progress through this method had also stalled and no new marine reserves have been created over the past decade.

Type 1 MPAs	Date Gazette/Order	Government	Size (ha)
Auckland Islands – Motu Maha	15 December 2003	Labour/PROG (Clark)	498,000
Ulva Island – Te Wharawhara	15 November 2004	Labour/PROG (Clark)	1,075
Fiordland (Te Moana o Atawhenua) Marine Management Act 2005	20 April 2005	Labour/PROG (Clark)	
Te Hapua (Sutherland Sound)			449
Hawea (Clio Rocks)			411
Kahukura (Gold Arm)			464
Kutu Parera (Gaer Arm)			433
Taipai Roa (Elizabeth Island)			613
Moana Uta (West Jacket Arm)			2,007
Taumoana (Five Finger Peninsula)			1,466
Te Tapuwae o Hua (Long Sound)			3,672
Te Matuku	4 July 2005	Labour/PROG (Clark)	690
Horoirangi	5 December 2005	Labour/PROG (Clark)	904
Te Paepae o Aotea (Volkner Rocks)	11 September 2006	Labour/PROG (Clark)	1,267
Parininihi	11 September 2006	Labour/PROG (Clark)	1,844
Whangarei Harbour	11 September 2006	Labour/PROG (Clark)	237
Tapuae	7 April 2008	Labour (Clark)	1,404
Taputeranga	28 July 2008	Labour (Clark)	855
Tāwharanui	15 August 2011	National/ACT/UF/M (Key)	394
Akaroa	12 May 2014	National/ACT/UF/M (Key)	512
Subantarctic Islands Marine Reserves Act 2014	14 February 2014	National/ACT/UF/M (Key)	
Moutere Mahue Antipodes Islands			217,287
Moutere Hauriri Bounty Islands			104,626
Moutere Ihupuku Campbell Islands			290,000
Kaikōura (Te Tai o Marokura) Marine Management Act 2014	7 August 2014	National/ACT/UF/M (Key)	
Hikurangi			10,416
West Coast Marine Protection Forum			
Hautai	11 August 2014	National/ACT/UF/M (Key)	853
Kahurangi	11 August 2014	National/ACT/UF/M (Key)	8,419
Punakaiki	11 August 2014	National/ACT/UF/M (Key)	3,520
Tauparikākā	11 August 2014	National/ACT/UF/M (Key)	17
Waiau Glacier	11 August 2014	National/ACT/UF/M (Key)	4,557

Figure 3.3 Marine reserves created since 2000 *(those resulting from collaborative processes shown in darker green)*

3.4 Aborted Marine Protected Areas Act

In January 2016, the Ministry for the Environment (MFE) released a consultation document on a 'new Marine Protected Areas Act'.[55] Notably, the MPA policy process was now being led by MFE, a more 'balanced' Ministry than conservation-orientated DOC. The process was being driven by former Conservation Minister Nick Smith who was now Minister for the Environment.

The release of the consultation document followed an announcement by Prime Minister John Key, in September 2015, that his government would create an enormous Ocean Sanctuary of 620,000 km^2 around the Kermadec Islands. This was to be through bespoke legislation which was introduced into Parliament in March 2016.[56]

In many respects, the proposals in the consultation document were similar to the provisions in the failed Marine Reserves Bill (see Figure 3.4). However, there were important differences designed to address some of the earlier sticking points. For a start, the EEZ was excluded, thereby removing any potential impacts on deep sea fisheries. In the territorial sea, the "undue adverse effect" test was to be replaced by an independent assessment of economic impacts.

The controversy over the Conservation Minister having sole decision-making power was addressed by bringing in a larger group of Ministers to make decisions. In addition, the processing of applications was taken out of the hands of DOC. In a nod to the evident success of collaborative processes, these were to be given formal recognition. Recommendations to the Minister were to be provided by either a collaborative process or an independent board of inquiry.

Notably, the 2016 proposals included a range of MPAs, not just marine reserves. They effectively brought into the same framework marine mammal sanctuaries under the Marine Mammals Protection Act (in species-specific sanctuaries) and benthic protection areas created through the use of sustainability measures under the Fisheries Act (in seabed reserves). A more controversial inclusion was recreational fishing parks, which were arguably not a MPA tool at all, but a fisheries management mechanism designed to address conflicts between commercial and recreational fishers.

The public submission period on the proposals closed in March 2016 and at that point this initiative also stalled. The erupting controversy over the Kermadec Ocean Sanctuary, and dispute over compensation for loss of fisheries rights, had a chilling effect on the development of new MPA legislation (see spotlight).

Spotlight on Kermadec Ocean Sanctuary

In 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 around the Kermadec Islands. At 620,000 km^2, 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" over "one of the most pristine and unique places on earth".[57]

The Kermadec Islands themselves are a nature reserve managed by DOC. A marine reserve had protected the territorial sea surrounding the islands since 1990. In addition, a benthic protection area, established in 2007 under the Fisheries Act, protects the EEZ around the islands from bottom-impacting fishing methods and overlays the marine reserve.

The decision to create the sanctuary was kept secret until just before the announcement. Affected parties such as mana whenua (Ngāti Kuri and Te Aupouri), Te Ohu Kaimoana (TOKM) which held Māori fisheries quota for the area, and deep sea mining company Nautilus Minerals NZ Limited which had a live prospecting application over the area, were informed by telephone the night prior to the announcement.[58]

The Kermadec Ocean Sanctuary Bill was introduced into Parliament, in March 2016, with cross-party support and referral to select committee. The purpose of the Bill was to "preserve the Kermadec Ocean Sanctuary in its natural state".[59] Shortly afterwards, TOKM launched judicial review proceedings against the Government as did the New Zealand Fishing Industry Association. Meanwhile, public submissions were sought on the Bill, and the select committee reported back to Parliament in July with some minor recommended changes. The Bill then stalled while parties sought a negotiated settlement to the legal proceedings.

The proposed Kermadec Sanctuary coincided with Fishery Management Area 10 (FMA 10). The main issue of contention was that the Bill inserted into the Fisheries Act a prohibition on all fishing within FMA10. It also set the total allowable catch (TAC) and total allowable commercial catch (TACC) to zero for all stock that coincided with FMA10. This meant that the fisheries quota itself was not extinguished but it could not be utilised until the TACC was increased.[60]

When the quota management system was introduced, nominal quota was created for FMA10, in the event that a commercial fishery might be established there. This had yet to occur and so the quota was

mainly held by the Crown. However, 16 per cent had been transferred to TOKM for eventual allocation to iwi, under the terms of the Māori Fisheries Settlement.[61]

The reasons for the lack of development of a commercial fishery in FMA10 included the marine reserve preventing all fishing within the territorial sea, the benthic protection area preventing bottom trawling within the EEZ,[62] and the distance of the islands from the mainland. A small part of the catch of highly migratory species (4%), such as bigeye tuna, swordfish and moonfish, was being taken from within FMA10. But as the quota management area for these species included the entire country's EEZ, they could also be readily caught outside the Sanctuary area.

Most controversially, in terms of subsequent legal challenges, the Bill stated that "No compensation is payable by the Crown for any loss or damage, or any adverse effect on a right or interest, (including, without limitation, to or on the value of quota or a right to fish) arising from the enactment or operation of this Act".[63] This mirrors the current practice when establishing marine reserves under the Marine Reserves Act, that no compensation for loss of fishing rights is payable, although that Act is silent on the issue.

The legal challenges against the Bill raised three key allegations: (1) the Bill effectively confiscated quota; (2) the establishment of the Sanctuary was 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 TOKM or iwi, and without compensation); and (3) the actions of the Crown were contrary to the Māori Fisheries Settlement.[64]

Subsequent Labour-led governments put considerable effort into seeking a resolution that would enable the Kermadec Ocean Sanctuary to proceed. However, a negotiated settlement was voted down by iwi fisheries organisations in June 2023. The Bill was finally withdrawn from Parliament in March 2024. Meanwhile, it had stalled progress with MPA reform, and impeded progress with establishing additional MPA networks.

3.5 Paused MPA discussion document

"Establishing marine protection is not easy. Approaches to establishing marine reserves and marine protected areas are fraught with tension and have historically taken a long time."[65] (Auditor-General)

Efforts to progress MPA reform under recent Labour Governments (2017-2023) also made little headway. A discussion document was worked up by officials, and was ready to go in 2021.[66] It set out a government proposal to replace the Marine Reserves Act and the MPA Policy with a new Marine Protected Areas Act and National MPA Strategy.

The new Act was to apply to the EEZ as well as the territorial sea and internal waters (eg estuaries and tidal rivers). Its purpose was to be "the establishment and effective management of MPAs to maintain, protect and restore indigenous marine biological diversity and ecosystem function and resilience".[67] Two categories of MPAs were to be provided for, marine reserves (which were highly protected) and marine conservation areas which could be tailored to meet specific marine protection objectives. A marine protection standard would set out the minimum level of protection required for areas, other than the two categories provided for under the Act, to qualify as an MPA.[68]

In terms of provision for Māori, there was to be explicit provision for rights and interests in other legislation (and for impacts on them) to be considered, and for meaningful partnership with iwi/Māori in the development of the MPA Strategy (potentially through co-design) and processes for establishing, mananging and reviewing MPAs. In particular, customary fisheries management practices were to be recognised and options for co-governance arrangements explored.[69]

The National MPA Strategy was to be a statutory document made on the joint recommendation of the Ministers of Conservation, Oceans and Fisheries, and Environment. It would be reviewed every 10 years. The Strategy was to include national objectives, priorities and standards. It could also inform a range of actions such as setting up collaborative processes for establishing MPAs and assessing impacts on other users of the marine area.[70] The proposals also included the establishment of a Science and Mātauranga Māori Advisory Board to provide scientific and technical advice on the implementation of the MPA Strategy and to support collaborative groups considering MPA proposals.[71]

The establishment of MPAs was to be through a five stage process: (1) initial screening of proposals (either government-initiated regional-scale processes or outside expressions of interest) and a Ministerial decision on whether to progress them; (2) engagement to refine proposal scope and process followed by Ministerial confirmation; (3) proposal development (either led by government agencies or a collaborative group) and Ministerial decision to progress to stage 4; (4) public consultation on proposal led by government agencies or an independent panel with final recommendations to Ministers; (5) final joint decision by the Ministers of Conservation and Oceans and Fisheries before establishment.[72]

Attribute	Marine Reserves Bill 2000	MPA Act proposals 2016	MPA Act proposals 2021
EEZ	Included	Excluded	Included
Type of MPA	Marine reserves	Marine reserves, species-specific sanctuaries, seabed reserves and recreational fishing parks	Marine reserves, marine conservation areas
MPA Policy	No	No	National MPA Strategy
Impacts on other users	Must have no "undue adverse effect" on a range of activities including commercial and recreational fishing, recreational use, economic use and development, adjoining land interests, navigation, education and research	Mandatory independent assessment of economic impact of a proposed MPA	"undue adverse effects" threshold for existing interests
Compensation	No	Only payable to quota owners subject to "materially significant" impacts from recreational fishing parks	No
Initiation	Any person may initiate	Joint Ministerial decision on initiating proposal	Either government-initiated regional scale processes or expression of interest by an individual, iwi/Māori or group and confirmed by Ministerial decision
Processing	Director-General decides if proposal can proceed, notifies for public submission, and reports to Minister	Collaborative process or board of inquiry makes recommendations to relevant Ministers	Government-led or collaborative process to develop up proposal followed by public consultation
Decision	Minister of Conservation	Jointly by relevant Ministers (must include Conservation, Primary Industries, Environment and Māori Development Ministers)	Jointly by Ministers of Conservation and Oceans and Fisheries
RMA interface	Silent	MPAs to be recognised in regional coastal plans and taken into account in decision-making	Spatial protections under the RMA can be recognised as MPAs
Review	Yes if required under Order in Council or reserve no longer meets the purpose of the Act	Periodic review of MPAs undertaken by collaborative process or board of inquiry	National MPA Strategy reviewed every 10 years; periodic review of MPAs

Impact on Māori	Treaty clause; consultation with iwi/hapū when proposal prepared; reserve must have no "undue adverse effect" on relationship of iwi/hapū with area or ability to undertake customary food gathering; advisory committees to include iwi/Māori representation	Treaty clause; meaningful iwi/Māori involvement in all stages; requirement to maintain the integrity of MACA rights and fully recognise non-commercial customary fishing arrangements; advisory committees to include iwi/Māori representation	Under Conservation Act Treaty clause; explicit provision for rights and interests in other legislation (and for impacts on them to be considered); potential co-design of National MPA Strategy; partnership in establishing, managing and reviewing MPAs; customary fisheries management practices to be recognised; options for co-governance arrangements to be explored
Tourism	Concessions system	Concessions system	Concessions system
Management	Management bodies and advisory bodies can be appointed; management plans to be prepared	Advisory boards	Advisory management groups; MPA management plans
Monitoring and reporting	Silent	Status of MPAs regularly reported on	Report on state of MPA network every 10-15 years

Figure 3.4: Comparison between key provisions of the Marine Reserves Bill 2000, Marine Protected Areas Act 2016 proposals and Marine Protected Areas Act 2021 proposals

However, these proposals never saw the public light of day and the reform process was paused while Ministerial and staff efforts focused on landing the Kermadec Ocean Sanctuary as well as progressing the Hauraki Gulf and SEMP MPA networks (see Figure 3.5). But, as it turned out, the Kermadec efforts failed to reach fruition (and the proposal has since been abandoned) and the Hauraki Gulf and SEMP networks are still work in progress. Meanwhile, MPA policy reform had been left languishing once again.

Despite this lack of progress on policy reform, there has been some positive movement in expanding the MPA network on the ground. An updated gap analysis in 2019 found that coverage had increased by around 50 per cent, since 2011, albeit from a very low base. A total of 9.8 per cent of the territorial sea was now protected in Type 1 MPAs and this increased to 12.3 per cent coverage when Type 2 MPAs were included.[73]

Due to the bulk of MPA protection being located around offshore islands, mainland bioregions in 2019 had only 0.3 to 4.7 per cent of their area in MPAs. Fiordland had by far the highest proportion of protection (4.72%), with the lowest being along the east coast of the North Island (0.25%), followed by the south coast of the South Island (0.47%).[74]

The analysis also investigated representivity and replication. Of 416 habitats identified across 14 bioregions, more than 65 per cent were not protected in any marine reserve, and 70 per cent have less than one per cent of their extent protected. The level of replication (the same habitat protected in more than one MPA) was also low with several bioregions having no replication at all.[75]

The lack of clear evidence, on what the existing 44 marine reserves have achieved to date, has potentially hampered progress. MPA monitoring has been patchy, and the results not generally well reported, although this is improving. DOC released a marine monitoring and reporting framework in 2022 and has plans to develop a monitoring plan for each marine reserve over time.[76] Currently just over half (24) of the country's 44 marine reserves have some level of monitoring, with an annual budget of $235,000.[77]

Whatever one thinks of the value of MPAs it is clear that, in 2025, New Zealand does not have a representative network of MPAs and there is little protection for most mainland bioregions. This slow progress is significantly out of step with public opinion (see spotlight) suggesting that lack of public support is not a factor hindering progress.

Spotlight on public views on marine reserves

In 2011, the World Wildlife Fund commissioned a Colmar Brunton poll to measure public attitudes to the oceans. This revealed that 96 per cent of the public thought a much higher percentage of the marine environment should be protected in marine reserves.[78] When asked what percentage of the marine area should be within marine reserves, the mean figure of polling undertaken in both 2005 and 2011 was 36 per cent. For Māori, the preferred percentage was even higher, at over 50 per cent.[79]

More than a decade later, in 2024, a World Wildlife Fund-commissioned Horizon Research poll found that 81 per cent of adults thought marine protection should be expanded. Over half thought that 15 per cent or more of the oceans should be in MPAs, with 30 percent saying the figure should be 30 per cent or more. Support was strongest amongst Te Pāti Māori voters with 68 per cent seeking 20 per cent or more protection.[80]

The disproportionate number of Māori who support marine protection in these polls is significant, and indicates that increased protection is not contrary to the aspirations of many Māori.

3.6 Prospective Hauraki Gulf Bill

The Sea Change Tai Timu Tai Pari process delivered a consensus spatial plan for the Hauraki Gulf in late 2016. The plan included a network of MPAs, along with a range of other actions addressing matters such as fisheries management, land-based impacts and aquaculture.

The Noises which is slated to be protected by an HPA under the Hauraki Gulf / Tīkapa Moana Marine Protection Bill

Implementation of the plan languished for many years. It was not until 2021 that the Labour-led government indicated an intention to progress the plan in 'Revitalising the Gulf'. It then took another two years to finalise the Hauraki Gulf / Tīkapa Moana Marine Protection Bill, which was introduced into Parliament in September 2023 and sent to select committee, just prior to the October national election which Labour lost.

Spotlight on key provisions in the Hauraki Gulf / Tīkapa Moana Marine Protection Bill 2023

The Bill creates 12 new 'high protection areas' (HPAs) and 5 new 'seafloor protection areas' (SPAs) along with extensions to two existing marine reserves. The HPAs and SPAs are new protection tools which do not currently exist in the MPA toolkit. In this way, the Bill creates a bespoke MPA regime. The key features of the Bill include:

- Providing a purpose for HPAs which is "to protect and enhance indigenous biodiversity within the high protection areas and, if that biodiversity is degraded, restore it."
- Providing a purpose for SPAs which is "to maintain indigenous benthic habitats within the seafloor protection areas and, if those habitats are degraded, restore them."
- Prohibiting a wide range of activities within HPAs including fishing, mining and aquaculture (but not customary non-commercial fishing)
- Prohibiting bottom-trawling, Danish seining, dredging, mining and other activities impacting the seabed in SPAs
- Providing for the development of biodiversity objectives for HPAs and SPAs in collaboration with iwi
- A permit system for authorising prohibited activities within a HPA or SPA
- Detailed enforcement provisions including ability to issue infringement notices and appointment of honorary rangers
- A 25-year Ministerial review

Over 7,000 submissions were lodged on the Bill indicating the very high level of public interest.[81] The select committee heard public submissions and reported the Bill back to Parliament (in June 2024) with minor

amendments. Support for the Bill was unanimous across select committee members from all political parties. The Bill has received a second reading and is currently in the hands of the National/ACT/NZ First Coalition Government awaiting final passage.

The Government has recently announced that it will make last-minute changes to the Bill to permit ring-net fishing within two of the HPAs, remove a no compensation clause that had been inserted at the select committee stage, and modify some of the provisions relating to the Treaty clause and to Māori (including removing reference to hapū and whānau). This is largely in response to proposals by the fishing industry and TOKM.[82] It highlights the highly politicised nature of MPA processes, with key sectors able to achieve last minute changes in their favour through lobbying politicians.

Name	Category	Size (ha)
Hauraki Gulf / Tīkapa Moana Marine Protection Bill 2024		
Te Hauturu-o-Toi / Little Barrier Island	HPA	19,525
Slipper Island / Whakahau	HPA	1,331
Motukawao Islands	HPA	2,911
Pakatoa and Tarahiki /Shag Island	HPA	1,235
Rangitoto and Motutapu	HPA	1,060
Cape Colville	HPA	2,661
Mokohīnau Islands	HPA	11,824
Alderman Islands / Te Ruamahua (north)	HPA	13,375
Alderman Islands / Te Ruamahua (south)	HPA	15,485
Kawau Bay	HPA	4,093
Tiritiri Matangi	HPA	949
The Noises	HPA	5,951
Cape Rodney-Okakari Point extension	Marine reserve	1,517
Te Whanganui-o-Hei /Cathedral Cove extension	Marine reserve	1,461
South-east Marine Protection Forum		
Waitaki	Marine reserve	10,100
Te Umu Kōau	Marine reserve	8,800
Papanui	Marine reserve	16,900
Ōrau	Marine reserve	2,900
Ōkaihae	Marine reserve	500
Hākinikini	Marine reserve	600

Figure 3.5 Pending HPAs and marine reserves

3.7 What we can learn from past efforts

It is clear from the above historical review that considerable effort has been put into MPA law reform, by many people over many years, but with few tangible results to show for it. This is not due to a lack of knowledge about effective MPA policy design, or poor public support for marine protection, or lack of dedicated Ministers. It is due to the highly politicised nature of the subject-matter, and short political windows of opportunity that open, and then quickly close again.

In particular, Māori rights and interests in the marine area have yet to be fully resolved, and successive governments have managed to inflame rather than resolve this underlying tension. In both the foreshore and seabed and Kermadec Ocean Sanctuary controversies, government acted without engaging with Māori first, and unilaterally abrogated important rights and interests. This, in turn, has impeded progress with oceans-related policy.

There is also a fundamental conflict, which has yet to be fully resolved, between a protectionist approach that seeks to exclude activities from

marine areas and a relational te ao Māori worldview where economic interests and a responsibility to care for the environment are not seen as necessarily inconsistent. This all highlights that Māori leaders will almost certainly need to be an integral part of any future MPA policy development for it to succeed.

Concerns about the impacts of MPAs on fishing communities, have also slowed down progress, and have received support from minor coalition political parties. Notably, the current Minister for Oceans and Fisheries and NZ First MP Shane Jones, sees himself as a "forceful" advocate for the commercial fishing sector.[83] Poor initial engagement in the development phase of MPA proposals, in some cases, and lack of integrated management of other impacts on the marine area have served to exacerbate concerns. Future MPA reform will need to engage with, and seek to at least partially resolve, such issues.

The short Parliamentary term of just three years has also been unhelpful. Some Ministers ran out of time in their portfolio. In other instances the consultation process ran over sucessive terms of government where it became difficult to maintain political momentum. Slowness of the government bureaucracy, in bringing proposals to fruition, has also been problematic. Delays in consultation, due to Covid-19, have hampered more recent MPA proposals. By the time progress is finally made, it is often too late, as the politics has changed. This all highlights the fact that we lack enduring leadership across the oceans space.

"Regardless of the discussion of marine protection mechanisms – the fundamental dispute is over ownership and control of oceans space. For now I suspect officials and Ministers will be feeling extra cautious. No one's able to get progress."

Commercial fishing vessels, Viaduct Basin, Auckland. Concerns about the impacts of MPAs on commercial fishing has slowed down progress with MPA reform

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4 International approaches

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In this chapter we switch from the domestic historical context to review MPA developments in international fora and approaches taken in other countries.

4.1 International MPA commitments

International aspirations for MPA coverage are set out in various agreements under the framework of the Convention on Biological Diversity. New Zealand is a party to the Convention, which came into force in December 1993, and arose out of international concern over the significant and ongoing loss of indigenous biodiversity. The commitments of particular relevance to the marine environment are described below, along with the New Zealand Government response.

'10 by 10' (2004)

In 2004 the Conference of the Parties committed to a target of "effective conservation of **at least 10% of each of the world's ecological regions by 2010**".[1]

This quantitative goal of '10 by 10' was reflected in New Zealand's first Biodiversity Strategy (released in 2000) where, in relation to the marine environment, it was to be achieved "in view of establishing a network of representative protected marine areas".[2] The subsequent 2005 MPA Policy did not include a quantitative figure (although it was mentioned in the Foreword) but focused on establishing a "network" of MPAs that was "comprehensive and representative" of the country's "marine habitats and ecosystems".[3]

'10 by 20' (2010)

In 2010, the Aichi Biodiversity Targets were adopted as part of the 'Strategic Plan for Biodiversity 2011-2020'. This extended the timeline to achieve 10 per cent protection by a decade – from 2010 to 2020. It also included a range of qualitative requirements for MPAs. As well as covering at least 10 per cent of the marine area, MPAs needed to be "effectively and equitably managed", "ecologically representative" and "well-connected".[4] It also included, for the first time, reference to "other effective area-based conservation measures" which were not strictly speaking MPAs but could contribute to conservation objectives.

Aichi Biodiversity Target 11: "**By 2020**, … **at least 10 per cent 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 … seascapes."

'Representation' has long been identified as an important characteristic of conservation planning along with 'connectivity' between protected areas. This is to help ensure that a sample of all biodiversity is protected, within the protected area network, and that each protected area supports others in the network.[5]

In 2016, the New Zealand Biodiversity Strategy was supplemented and updated by an 'Action Plan for 2016-2020'. This significantly weakened the earlier MPA commitment in the Biodiversity Strategy itself, providing a national target that by 2020 "a wider range of marine ecosystems will be in protected areas".[6] It notably omitted concepts such as 'ecologically representative' and 'well-connected' along with any minimum coverage figure.

30 by 30' (2022)

The Kunming-Montreal Global Biodiversity Framework, adopted in December 2022, contains Target 3 which specifically refers to MPAs. This triples the coverage requirement from 10 to 30 percent (something that had been recommended by scientists since at least 2014)[7] and includes an added requirement to recognise and respect the rights of indigenous peoples and local communities.

> Kunming-Montreal Global Biodiversity Framework Target 3: "Ensure and enable that **by 2030 at least 30 per cent … of marine and coastal areas**, especially areas of particular importance for biodiversity and ecosystem functions and services, are effectively conserved and managed through **ecologically representative, well-connected and equitably governed systems of protected areas** and other effective area-based conservation measures …. **and integrated into wider … seascapes** and the ocean… **recognizing and respecting the rights of indigenous peoples** and local communities, including over their traditional territories."

Somewhat surprisingly, when New Zealand's biodiversity strategy was updated in 2020, the MPA provisions were not strengthened to reflect this international sentiment but were further watered down. The goal for 2030 was "significant progress", and this was not in protecting representative and connected marine habitats and ecosystems, but protecting only those of "high biodiversity value".

Overall, the New Zealand Government's policy has been backsliding while international commitments, to which the country has signed up, have become much more rigorous (see Figure 4.1). Postively, in 2022, Government adopted the global protection target of 30 by 30 with then Conservation Minister Poto Williams stating that "marine protection needs to be purposefully designed and well managed to protect the full range of nature's diversity".[8] However, the Government has yet to determine what New Zealand's contribution to the global target will be, other than referring to the national biodiversity strategy,[9] which (as noted above) contains weak commitments.

This desultory approach to marine protection has potential international trade implications. These are taking on more resonance in an increasingly turbulent international trading context. For example, the New Zealand-European Union Free Trade Agreement, which entered into force in May 2024, requires New Zealand to "effectively implement" multilateral environmental agreements and protocols it has signed up to.[10]

Achievement date	International commitment	National commitment
2010	Effective conservation of at least 10% of ecological regions (2004)	Protect 10% by 2010 in a network of representative areas (2000)
2020	At least 10% conserved in protected areas that are ecologically representative, well-connected, and effectively and equitably managed (2010)	A "wider range" of marine ecosystems in protected areas (2016)
2030	At least 30% conserved in protected areas that are ecologically representative, well-connected, effectively and equitably managed, and in other effective area-based conservation measures, while respecting indigenous rights (2022)	"Significant progress" made in protecting marine habitats and ecosystems of "high biodiversity value" (2020) Support the *global* protection target of 30% by 2030 (2022)

Figure 4.1: Summary of international and national commitments for MPAs

The use of coverage figures as policy targets, such as reflected in these agreements, has both positive and negative aspects. Proponents argue that they have "a clear purpose" and provide "measurable objectives". They are also "simple to convey, politically tractable" and "help mobilize support for conservation".[11]

Detracters argue that such targets lack scientific validity, are not place specific, and are consistently too low. They assert that targets are set through a process that prioritises social and political acceptability over scientific robustness.[12] For example, studies between 1995 and 2015 indicated that 30 to 40 per cent coverage of MPAs was required to meet a range of biodiversity, fisheries and social goals[13] and an updated study (for 2016 to 2020) landed on a similar figure.[14] But it was not until much later (2022) that an increase from 10 to 30 per cent was internationally agreed.

A further concern with the use of targets, on their own, is that they incentivise 'paper parks'. This is where MPAs are declared, but rules to protect them are negligible. Targets have also been criticised for incentivising the placement of MPAs in areas where there are few human activities, and therefore minimal threats, in order to meet the coverage requirement. These are termed "residual" MPAs which "are designated in areas that are hardly used for extraction purposes, with no real conservation objective and a primary purpose of meeting internationally mandated areas-based targets for protection".[15]

This approach is evident in New Zealand's MPA network where the large bulk of coverage is in areas well away from resident populations or major stressors.[16] This makes the use of national-level quantitative figures, to indicate the adequacy of the country's MPA network, arguably misleading. It also means that the bulk of the population has little access to MPAs in order to learn about, appreciate and experience a healthy and abundant marine environment.

Spotlight on benthic protection areas

Benthic protection areas were established in 2007, through Fisheries Act regulations, and protect 17 areas in the EEZ from fisheries bottom trawling and dredging. Fisheries New Zealand claims that "New Zealand's bottom trawl closures are one of the largest national networks of protected areas and are recognised as being globally significant."[17] But does that claim stack up?

The benthic protection areas cover 31 per cent of the EEZ (thereby meeting the international coverage target). However 82 per cent are in waters that are too deep to be trawled with current technology and so they are not protected from any current fishing risk.[18] They are in effect 'residual' MPAs. They are also not protected from what *is* a significant risk, seabed mining, with a benthic protection area on the Chatham Rise subject to an application for phosphate mining. This was ultimately refused consent on environmental grounds, in 2015, but may well reappear under the Fast-track Approvals Act 2024.

These benthic protection areas could usefully be morphed into fully protective MPAs, so that all damaging activities (including seabed mining) are excluded from them. This would give them a risk-related purpose but would currently require special legislation.

4.2 Multi-functional MPAs

Amongst the types of MPAs created in various jurisdictions around the world, there is a contrast between large MPAs which contain multiple activity zones within them (such as the Great Barrier Reef Marine Park), and small but strictly 'no-take' areas. New Zealand has adopted the second approach with mostly small but tightly regulated marine reserves. This reflects a stronger preservationist approach.[19]

The IUCN MPA guidelines recognise multi-zone MPAs so long as the zones are clearly identified and each has a distinct management aim aligned to one of the IUCN protected area categories. Various low-impact activities are appropriate in the different zones depending on their objectives. High-impact activities such as industrial scale fishing and aquaculture, and seabed mining, are generally considered inappropriate in any MPA.[20]

Some commentators consider the designation of large MPAs, that integrate multiple activities, as representing best practice.[21] These have flexibility to accommodate a range of uses (while being managed for an overall biodiversity conservation purpose), and can accommodate a wider range of interests and values. For example, low-utilisation buffer areas can be placed around highly protected areas, to help address the boundary impacts of 'fishing the line' while also creating economic opportunities.[22] It is notable that in the Mediterranean Sea, 92 per cent of MPAs contain both no-take zones and surrounding buffer zones, where small scale fishing and other sustainable activities are permitted.[23]

Such a broader approach also enables a protective regime to cover much more of the ocean realm. For example, marine parks extend over a third of the New South Wales state waters (out to three nautical miles) and 43 per cent of Australian federal waters (out to 200 nautical miles).[24] Forty per cent of England's seas are designated as MPAs.[25] Very large MPAs, are also becoming common, particularly in the Pacific region. For example:[26]

- The Pitcairn Islands Marine Reserve is a no-take zone which covers 99.6 per cent of the EEZ.
- The Papahānaumokuākea Marine National Monument, in the remote Northwestern Hawaiian Islands, is the largest no-take marine area in the world covering some 362,000 km^2.
- The Marae Moana Cook Islands Marine Park is a multi-use MPA which covers the entire EEZ of the Cook Islands.[27]

Owhiro Bay, Wellington which is part of the Taputeranga Marine Reserve

An advantage of large multiple use MPAs is that protection can be more adaptable, and it can be ramped up over time, if found necessary. This was achieved in the Great Barrier Marine Park, where no-take areas were increased from 4.5 to 33 per cent of the total park area, when the lessor amount was found to be inadequate in protecting marine biodiversity within the park.[28] The establishment and management costs of large MPAs, can also be considerably less than creating multiple small protected areas, due to economies of scale (see spotlight).

Spotlight on the costs of establishing marine reserves

In 2008, the Taputeranga Marine Reserve was established over 855 ha of marine space on the Wellington coast, after 17 years of effort. The pre-establishment cost of the reserve has been estimated as being around $500,000 (in 2012 dollars) of which 60 per cent was funded by government and the balance provided by donor support and voluntary labour. After the reserve was gazetted the establishment costs incurred by DOC included the placement of signs, education of the public, and purchase and operation of a new boat. These were valued at an additional $350,000, bringing the total cost of creating the marine reserve and establishing management infrastructure to support it to $850,000 or around $1,000 per hectare. Ongoing management costs were around $60,000 a year which included part of a ranger's salary, boat running costs, maintaining equipment and signs, and printing brochures and posters.[29] This illustrates the very high cost of creating individual small MPAs when compared to creating integrated regional networks (such as in the Hauraki Gulf where 83,378 ha of Type 1 MPAs are proposed) where there are economies of scale.

Such large multiple-use designations can, however, be 'paper parks' when the areas lack strict controls on damaging activities. For example, bottom trawling and aggregate dredging are permitted within many MPAs in English waters.[30] Bottom trawling is also permitted within parts of the Hauraki Gulf Marine Park raising the question of whether an appropriate line has been drawn between sustainable use and biodiversity protection. And as indicated earlier, research has indicated that strictly no-take areas are more successful at protecting marine biodiversity. This means that a mix of both approaches could have some merit, as applied in other countries (as outlined in section 2.1 above).

Spotlight on the Hauraki Gulf Marine Park: A paper park?

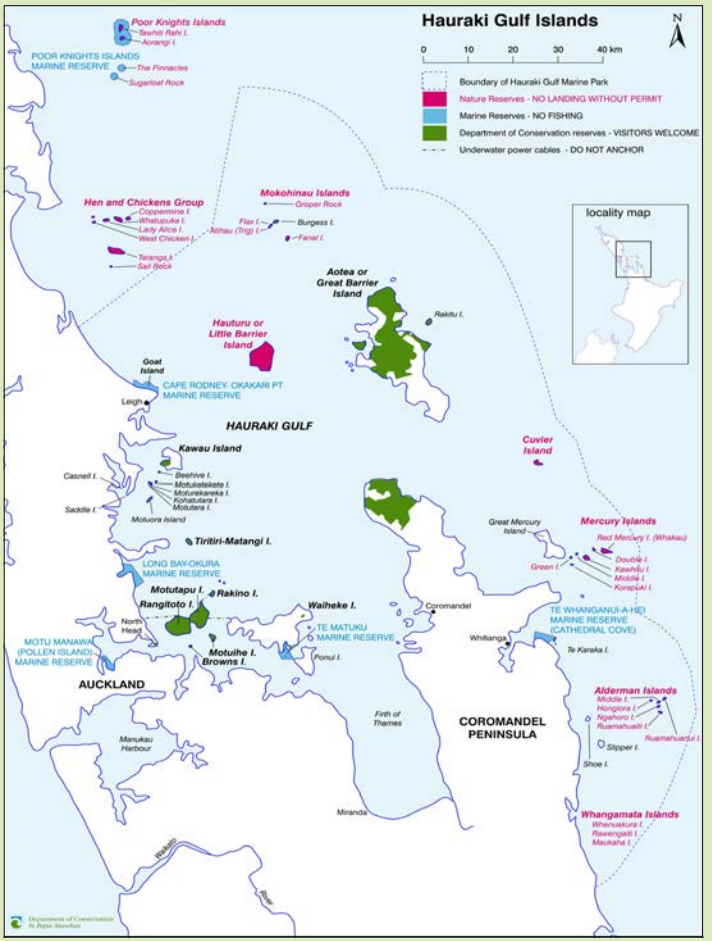
The Hauraki Gulf Marine Park was established in 2000 by virtue of the Hauraki Gulf Marine Park Act (see Figure 4.2). A key purpose of the Marine Park is to "recognise and protect in perpetuity the international and national significance of the land and the natural and historic resources within the Park". It aims to "protect in perpetuity" for the "benefit, use, and enjoyment" of people the "scenery, ecological systems, or natural features" that make the area "so beautiful, unique, or scientifically important to be of national significance, for their intrinsic worth". In addition, it is to "recognise and have particular regard to" the relationship of tangata whenua with the area, and "sustain the life-supporting capacity of the soil, air, water, and ecosystems".[31]

Arguably, the Hauraki Gulf Marine Park was initially conceived as a multi-use MPA, not unlike the Great Barrier Reef Marine Park. However, the Act fails to include any effective tools to achieve its aims, other than setting some very broad management objectives[32] (which are arguably all things to all people and have largely been ignored) and establishing a Forum comprised of representatives of tangata whenua, councils and central government (which has had a patchy record).[33]

Importantly, the legislation has failed to drive protective measures on activities within the Marine Park and in adjoining catchments. Only one new marine reserve has been created in the Park's 25 year lifespan which was well underway before the Park was established. Overall, the health of the Marine Park has demonstrably declined since its establishment.[34]

This context made the Sea Change Tai Timu Tai Pari process even more significant, as it was a collaborative process aimed at developing a marine spatial plan for the Park. This was in order to rebuild its health, and included establishing a MPA network, alongside more robust controls over fishing and catchment activities. However, the process and resultant plan has no statutory recognition or framing in the Hauraki Gulf Marine Park Act, and it floundered at the implementation stage.

All this strongly indicates that the Hauraki Gulf has essentially been a 'paper park' and that the Hauraki Gulf Marine Park Act needs to be strengthened to give it teeth. A revamped Act could provide the range of tools required to meet the vision for the Marine Park (as set out in the Act). This could include the ability to establish MPAs within the Park thereby avoiding the need for special legislation. Alternatively the Park could be wrapped up in broader MPA legislation.



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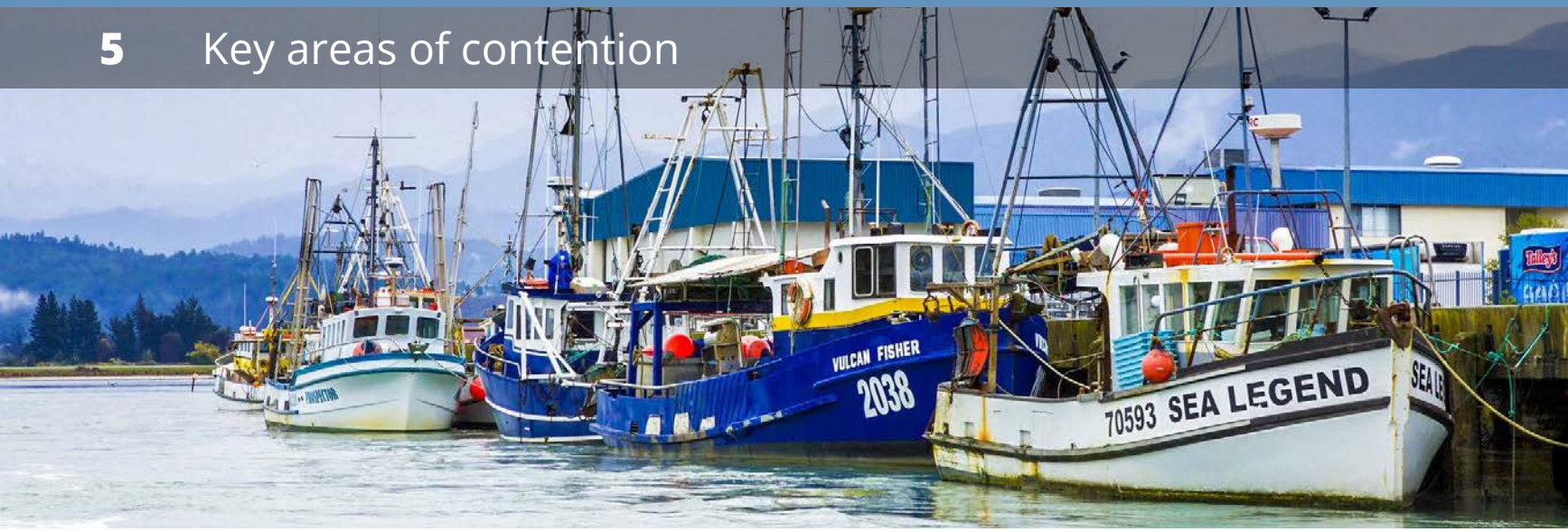
5 Key areas of contention



Commercial fishing vessels berthed at Motueka

To progress MPA reform, it is important to understand what the key sticking points have been in the past, so that ways these can be acknowledged and addressed can be explored. In this chapter we canvass some key areas of contention which are evident from sectoral submissions on MPA processes and our interviews with stakeholders.

5.1 Approach to MPAs

> "We must be careful about what we are trying to achieve and that it's not protection for protection's sake."

There is a divergence of views as to what the starting point for MPAs should be and what tools should be used to achieve marine protection. As noted above, scientists and conservationists have argued for a fully representative network of MPAs, targeted at protecting indigenous biodiversity, and covering a significant proportion of the marine area ('representative network approach'). This reflects a precautionary approach, where preventive measures are taken to protect the marine environment, even when scientific evidence of risk or harm is uncertain or incomplete.

MPAs with a high protection level typically exclude all extractive activities to achieve conservation objectives. However, an alternative approach is to identify areas where sustainable use *can* take place, with exclusions for the balance of the marine area (see spotlight).

A spotlight on trawl corridors: Reversing the MPA paradigm

MPA processes typically start from the premise that fishing can be undertaken throughout the marine area and the focus is on identifying places where fishing should be excluded. A reversal of this approach was applied to the identification of trawl corridors in the Hauraki Gulf, where the spatial decision-support tool Zonation was used to identify areas where benthic disturbing fishing activites *could* take place (as opposed to identifying areas where they *couldn't* take place).

The areas were identified by assembling spatial data sets on benthic diversity, biogenic habitats, historical trawling disturbance and current fishing activity by value. Scenarios were then developed which sought to maximise the protection of areas with benthic biodiversity, biogenic habitats and recovery potential while minimising the cost on the commercial fishing industry.[1] A strength of this approach is that it provides certainty over where fishing *can take place*. We were told by some fishers that they sought such certainty as a quid quo pro for MPA creation.

In contrast to the representative network approach above, fishers argue that MPAs should not be based on arbitrary protection goals, but should instead focus on responding to identified risks to biodiversity values ('risk-based approach'). For example, the New Zealand Sport Fishing Council

has stated it is not opposed to marine reserves where it has been "clearly established that a need for special protection exists". However, in its view, they should not include "average or typical" examples of marine habitats but only areas that are "particularly fragile and/or vulnerable to a range of potential impacts".[2]

The starting point is that fishing should be able to take place unless significant risks are established (ie the burden of proof is on the MPA proponents). However, establishing such risks can be difficult, particularly as fisheries data has not historically been collected at the relatively fine spatial scale that MPAs operate at (although this is changing with recent developments in electronic reporting).

According to fishers, identified risks should be managed using the most appropriate, and least cost, tool.[3] Fisheries management tools are to be preferred, if biodiversity risks are caused by fishing, as they are more targeted and flexible. Marine reserves should only be used as a last resort.

> "If you want to control fishing we have lots of tools. There doesn't have to be a lock-out."

In addition, MPAs can be seen by fishers as a reallocation of space from fishers to non-extractive users (such as when MPAs are designed for educational and/or recreational purposes), rather than serving primarily as a biodiversity protection tool. Although such a reallocation may be desirable in the public interest, fishers consider that in such cases, redress should be provided.

The current MPA system can be abrasive to Māori. The concept of conserving marine areas in their "natural state" (as provided for under the Marine Reserves Act)[4] is premised on a construction of nature that largely excludes humans. Protected areas become an 'other' – seascapes where people are 'visitors'.[5] Such an approach does not align well with the cultural values of iwi, hapū and whānau who seek to continue customary practices and maintain relationships and connections with place. Permanent no-take areas can sever cultural connections and obstruct the exercise and transmission of intergenerational customary practices.[6]

As former Māori Party MP Hone Harawira noted, there are significant disincentives for iwi to support marine reserve proposals even where they agree extra protection is needed, because "the Marine Reserves Act 1971 means that the Crown will retain ownership of their rohe and alienate them from governance and management".[7] Despite this, iwi and hapū have supported various MPA proposals over the years[8] and there have been more recent efforts to better tailor the application of the Marine Reserves Act to address cultural concerns (eg see the SEMP arrangements described below).

Where some form of marine protection is recognised as being needed, customary management tools can be preferred, as they offer greater flexibility, are seen as promoting a more balanced and holistic approach to oceans management, and are more supportive of rangatiratanga and the application of tikanga ('tikanga-based approach'). Such tools are increasingly being recognised internationally, as contributing to protected area targets, through providing "other effective area-based conservation measures".[9]

Spotlight on traditional Māori approaches to marine protection

An ethic of care and protection is built into a range of Māori traditional approaches such as mauri (which recognises the life essence), tiaki and taurima (an ethic to actively care, to tend), atawhai (to show kindness) and manaaki (to care for, uplift authority).[10] In "the marine environment, the traditional Māori conservation ethic is most widely understood by the term 'rāhui', a temporary protection of a food supply. The authority or mana employed is human, meaning that a rangatira (chief) declares a resource to be under his/her protection and establishes a rāhui, often indicated by means of a pou rāhui, a mark to designate protection."[11] Mātauranga Māori plays a critical role in these efforts, embodying the "intimate, holistic and embedded relationship that Māori have developed over hundreds of years with the natural environment".[12]

5.2 Utility of MPAs

There is also a divergence of views as to the utility and effectiveness of MPAs in oceans management.

> "It may seem counter-intuitive that restricting fishing in an area will result in more fish elsewhere. Yet, this happens because marine life disperses from its safe haven (the MPA), which acts like a reservoir to replenish adjacent fisheries."[13] (Mark Costello)

As outlined in section 2.2, published scientific literature has identified a range of positive outcomes from MPAs, with fully no-take areas having

the greatest benefits for biodiversity. There is also evidence that fishers gain economic benefits from MPAs along with their broader biodiversity purpose (see spotlight below).

Spotlight on economic impacts of MPAs

A study published in 2024 which reviewed 51 MPAs in 25 countries as diverse as the USA, Canada, Australia, New Zealand, Norway, France, Spain, Italy, Mexico and South Africa found numerous positive economic benefits from MPAs and no demonstrated costs to fisheries. The researchers concluded that the evidence of benefit to fisheries "is unequivocal" and "if there are any net losses to any fisheries anywhere due to MPAs, they are not documented and likely rare".[14]

Documented fisheries benefits included increased fishery catch, fish body size and spillover. The largest benefits consistently came from no-take reserves rather than multi-use areas. "In financial terms the capital is invested and people benefit from the interest on investment. To count MPAs as a cost on fisheries is analogous to claiming that interest earned on money is a cost."[15] Economic benefits from tourism were also found to be widespread across 24 countries.[16]

In contrast, fishers argue that MPAs fail to address the multiple pressures and threats on the marine environment, including land-based impacts, and cause more problems than they solve.[17] This is through displacing fishing effort to other areas, which increases exploitation there, and exacerbates rather than reduces spatial conflicts.[18] This, in turn, can lead to sustainability issues in the remaining open areas[19] and subsequent calls for more closures and restrictions, in a downward spiral for the fishery.

"All marine protection does is move people and put more pressure on other areas."

Rock lobster from Fiordland. Rock lobster fishers are often impacted by marine reserves due to the localised nature of the fishery

Spotlight on the impact of the Te Tapuwae o Rongokako Marine Reserve on CRA3

Te Tapuwae o Rongokako Marine Reserve was established, in 1999, on the coast north of Gisborne. It was jointly proposed by Ngāti Konohi and DOC and was seen by the hapū as "a kōhanga that will replenish the surrounding area and support future customary management initiatives".[20] This indicates that spillover into adjacent fisheries was one of the stated aims of the marine reserve from the outset.

The reserve covers 2,450 ha which was the largest mainland marine reserve at the time it was established. It extends 5 kilometres along the shoreline, and seawards some 2.7 nautical miles, to a depth of 40 metres.[21] It includes one entire reef system and part of a second reef that extends across the northern boundary.[22] Te Tapui Mātaitai O Hakihea Reserve, covering 410 ha, was subsequently established on the northern boundary of the reserve in 2011. This excludes commercial but not recreational or customary fishing. The CRA3 Industry Association strongly opposed the marine reserve and unsucessfully judicially reviewed the Ministerial decision to establish it.[23]

The East Coast is an area of particularly high rock lobster productivity, when compared to the rest of the country, due to high settlement rates (with locally produced larvae entrained in the Wairarapa current and settling locally),[24] high growth rates and earlier onset of maturity.[25] However, it is also a relatively shallow-water fishery, making it more susceptible to weather events and seawater warming.

At the time of the marine reserve creation, fishers said they took 10 per cent of the total CRA3 harvest from inside the reserve area. However, there were no reported harvest figures at a sufficiently fine spatial scale to verify this. The CRA3 fisheries model duly excluded 10 per cent of projected recruitment from the stock assessment, to account for the expected impact of the reserve on the fishery. Twenty years later, an analysis of the proportion of CRA3 rocky reef habitat (shallower than 50m and therefore suitable for crayfishing) within the marine reserve, which was thought to be a more reliable approach to estimating recruitment there rather than relying on undocumented historical catch, found this to be only around three per cent. The stock assessment model was readjusted, to incorporate this reduced figure, meaning that previous stock assessments had likely over estimated the 'reserve effect'.[26]

Whatever the actual harvest loss was, the area's closure forced ten commercial crayfishers to move into areas that were already heavily fished. Gisborne-based crayfishers, who had taken between 10 and 40 per cent of their catch from within the reserve area, were disproportionately affected.[27] None of the negative impacts on them, as a result of the marine reserve creation, were explicitly addressed.

The CRA3 spawning stock had been heavily fished down during the 1980s (prior to being brought into the quota management system) before experiencing a small rebound during the 1990s. By the time the marine reserve was created, the stock was again rapidly decreasing, and after a small rebound during the late 2000s, it dropped below the soft limit (which triggers a requirenment for a rebuild plan)[28] during the 2010s. The Region 1 portion of the stock (which is the northern and more productive part of the fishery and includes the marine reserve) currently hovers around the soft limit (see Figure 5.1). It is not possible from the Figure to discern any obvious impact, either positive or negative, from the marine reserve which was created after the fishery was already in decline.

Crayfishers consider that the harvest effort, displaced by the marine reserve, served to exacerbate the downhill trajectory of the fishery. Certainly, there was no downward adjustment in the TACC to account for the spatial closure. In fact, the TACC was increased by more

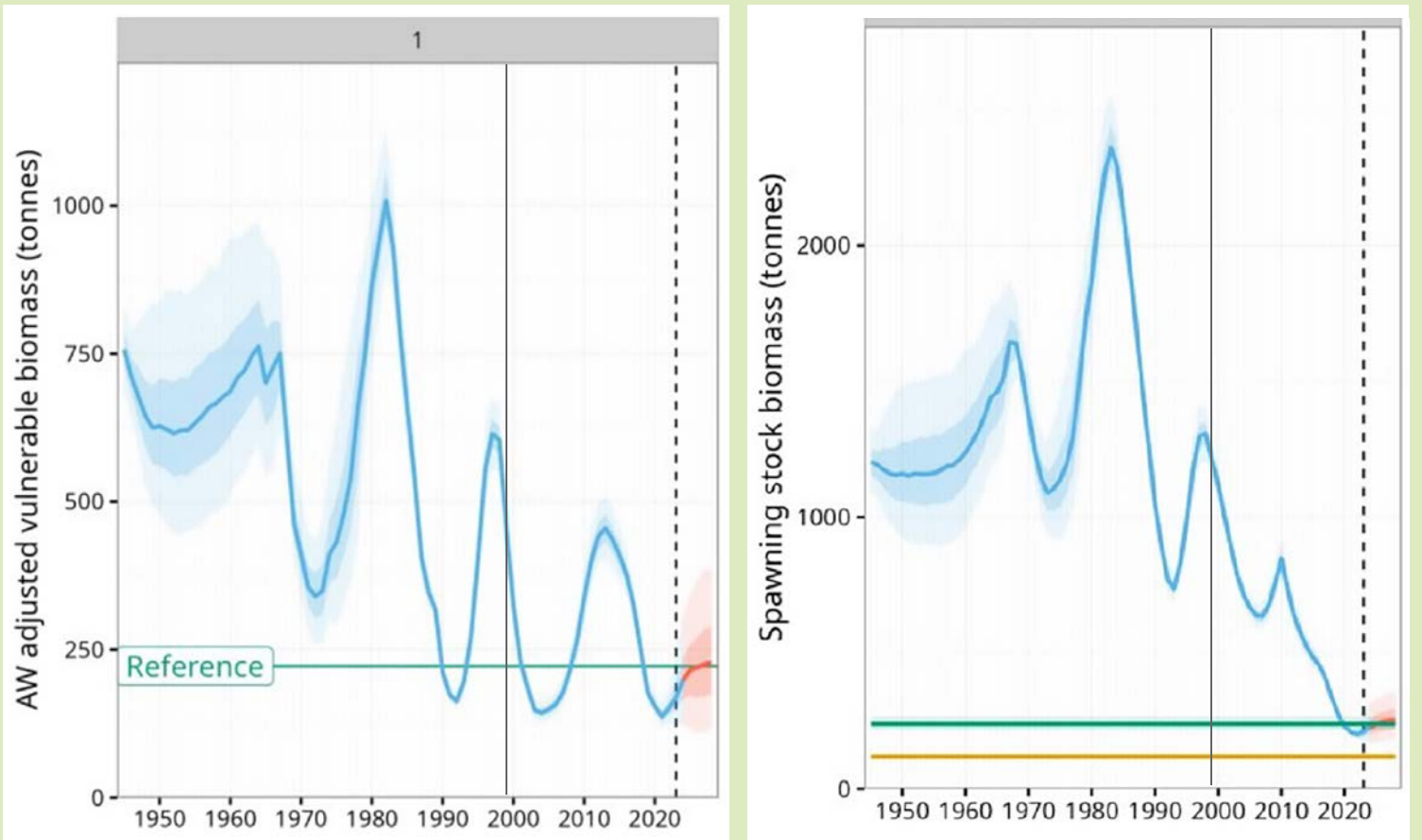


Figure 5.1: Modelled vulnerable (left) and spawning (right) stock biomass for region 1 (north) of CRA3 *(Fisheries New Zealand 2024) Green line soft limit, yellow line hard limit. Solid vertical line indicates when the marine reserve was created.*

than 45 per cent at around the same time (for the 1998-99 fishing year) which followed a 25 per cent increase the previous year. It was maintained at this high level for the subsequent six years.

A continued steep decline in the fishery belatedly prompted a 40 per cent TACC reduction in 2005-06 followed by a further small reduction in 2010-2011. Modelling shows a sharp, but shortlived, increase in spawning biomass around the time of these reductions, before a continued rapid drop during the 2010s (which rather strangely coincided with a TACC increase).

In 2023, Cyclones Hale and Gabrielle hit the area generating substantial quantities of debris which smothered nearshore reef systems. This undoubtedly impacted the fishery but to an extent that is unknown.[29] The current TACC for CRA3 (at 156 tonnes) is at the lowest level since the stock was brought into the quota management system.[30]

There was a strong recovery in the rock lobster population within the marine reserve itself, evident from shortly after its establishment, despite the downhill trajectory of the adjacent fishery. The density of rock lobsters increased 2.5 fold from 2000 to 2005. At the same time, the average catch per unit effort reached 46 times higher within the reserve than outside it. Individuals and groups of lobsters were significantly larger within the reserve and there was a greater proportion of males.[31]

A tagging study of rock lobsters within the reserve indicated there was net migration into fished areas with 5 per cent of tagged animals moving in and out across the reserve boundary. The was supported by unusually large catches within one kilometre of the reserve suggesting that some fishers were focusing harvest effort near the protected area to benefit from this spillover.[32]

Researchers concluded that the design of the marine reserve served to both allow the recovery of the rock lobster population within the protected area (through including an entire reef system), while also promoting spillover of adults across the northern boundary, due to it bisecting the rocky reef habitat there.[33]

5.3 Displaced effort and compensation

"The key to the integrity of the quota management system is an assurance that quota will be recognised and respected. But we cannot allow quota rights to be extended into full property rights. That was never the intention. That's not what they are. There's no spatial ownership of the marine area."

Although displaced effort is a topic frequently brought up by fishers, when MPAs are proposed, it is not something that is directly addressed when MPAs are established in New Zealand. In fact, we were told that adjustments to harvest settings were explicitly placed off the table in MPA discussions.

"[In the SEMP deliberations] there was no ability to look at altering the bag limits to compensate for displacement of fishing. Any suggestion we were going to restrict one group of fishers was deemed a fisheries management issue that couldn't be considered."

Failure to address the displacement issue, to date, is likely due to no-take marine reserves being intentionally small and designed to avoid any significant impacts on fishing. But if the area covered by marine protection was to increase significantly (reflecting the international '30 by 30' commitment), the impacts of displaced effort will likely become more marked. This will raise issues around the need to 'rebalance' the fishery through reducing the TAC and TACC and potentially providing some form of commensurate financial adjustment support for those adversely affected.

"In general, rebalancing is about the public paying for the public good."

In the commercial fishery, MPAs can affect both quota owners (who have a right to a share of the annual catch entitlement (ACE) for the stock) and harvesters, who commonly do not own sufficient quota to cover their

catch, but lease ACE from quota owners (known as ACE fishers). Closures can impact fishers in various ways, including requiring vessels to travel further afield to fish, and creating conflict when fishers are forced onto another's 'patch'. They can also upset the 'balance' of the catch, leaving a gap in a vessel's annual fishing calendar, and rendering its ongoing operation uneconomic.

Spotlight on commercial fisher displacement from the Taputeranga Marine Reserve

The cost of fisher displacement, from the establishment of the 855 ha Taputeranga Marine Reserve on the Wellington coast (in 2008), was quantified based on the actual additional costs incurred by fishers (as opposed to cost estimates prior to the event). Only two vessels were affected, and they both continued fishing in the broader fishery, with total catch unaffected. However each vessel incurred additional costs, primarily due to the additional time and fuel costs incurred from travelling further to more distant fishing grounds, and the purchase of additional gear. This was calculated as being $22,160 per fishing vessel per year, in 2012 dollars.[34]

From the outset, it makes sense to design MPA placement and boundaries to minimise any adverse impacts on existing fishers (and where practicable maximise any eventual positive impacts). However, when such impacts cannot be avoided and are significant, some response is likely required.

In terms of addressing displaced effort, Te Rūnanga o Ngāi Tahu put forward a proposal in 2021, in the context of the SEMP proposals. This built on an earlier proposal by commercial fishing interests [35] and included three elements:[36]

a) *Rebalancing the biological system*: through removing the displaced catch from the fishery. This can be achieved through reducing the TAC and TACC, reducing the recreational allowance (such as through smaller bag limits and reduced minimum legal size), and adjusting levels of customary take where necessary. The aim is to "preserve existing utilisation opportunities in the surrounding fisheries".[37]

b) *Rebalancing economic incentives*: to ensure affected quota owners are no worse off financially. This can be achieved through compensating quota owners for the market value of quota shares equivalent to the foregone commercial catch (reduction in TACC).[38] In addition, adjustment assistance is to be provided for displaced ACE fishers, and compensation for affected customary (commercial and non-commercial) rights. This might include facilitating iwi access to commercial opportunities in MPAs.

c) *Rebalancing customary opportunities*: through providing support measures for customary fisheries which could include improvements to the functionality of customary protection tools, iwi MPA rangers, joint management of MPAs, providing for wānanga (selective customary catch) in MPAs, and a generational MPA review.

In the end, the focus in the SEMP proposals was placed on rebalancing customary opportunities through formal co-management of the marine reserves with Ngāi Tahu along with tribal ranger roles, continued enhancement of mātauraka Māori (traditional knowledge) and wānaka (intergenerational sharing of knowledge) within the marine reserves, generational reviews, and retrieval of koiwi tākata (ancestral remains), marine mammal remains and archaeological artefacts provided for.[39]

"The networks we got for the SEMP, the West Coast and Sub-Antarctics are the networks you get for free. If you want a proper network you pay for it."

Support measures for recreational fishers are less often discussed. To avoid full displacement from an area, the New Zealand Sport Fishing Council has stated that it will "vigorously oppose any marine reserve proposal that attempts to take the total area around any offshore island".[40]

The previous government made it clear that, in its view, the quota management system was always subject to the Crown's ability to create no take reserves, including in the EEZ.[41] This is reflected in the United Nations Convention on the Law of the Sea which is the basis on which New Zealand has sovereignty over the territorial sea[42] and sovereign rights over fisheries in the EEZ.[43] These rights are explicitly subject to both an optimum utilisation of living resources requirement,[44] and a preservation duty,[45] with New Zealand having an international obligation to "protect and preserve the marine environment".[46]

However, there are limitations to this approach in the case of Māori settlement quota. The High Court has recently confirmed that fisheries quota transferred to Māori under the 1992 Māori fisheries settlement cannot be unilaterally expropriated without compensation. The Court

confirmed that the Crown has an "enduring obligation to ensure the loss of quota shares … does not affect the integrity of the settlement". It also made clear that these findings did not apply to non-settlement quota (ie additional quota acquired by Māori or quota owned by non-Māori interests).[47] This raises the question of when the creation of MPAs does and does not result in the expropriation of fisheries settlement quota, that is, where the line is to be drawn.

It has been the Crown's longstanding position that, in principle, compensation for the loss of commercial fishing rights, arising from a proposed marine protection measure, is undesirable. This is because any decision to compensate could create expectations for the future, with significant fiscal implications. This could make it exceedingly difficult to establish further MPAs, or take other measures to protect the marine environment, given the limited size of the public purse.

"Compensation is hugely expensive and most government departments avoid it like the plague. But in the long run it is probably cheaper and people can get on with their lives and governing the country."

The concerns about high expense are real, as the cost of such compensation packages can reach eye watering amounts, and still not necessarily effectively address the impacts on fishers or fish stocks (see spotlight below).

Spotlight on the Great Barrier Reef Marine Park structural adjustment package

When the Great Barrier Reef Marine Park underwent rezoning (in 2004) the area designated as 'no take' increased from 4.5 to 33.3 per cent and the no-trawling area from 15 to 28 per cent of the park area. A structural adjustment package was offered to support the changes and compensate fishers.

The purpose of the package was "to ensure the fair and equitable treatment for those fishers, fishery related businesses, employees and communities that can demonstrate … negative impacts due to the rezoning".[48] The structural adjustment package was initially expected to cost around AU$10.2 million, but ended up closer to AU$250 million.[49] An independent review of the package was undertaken in 2010, at which point the funding had climbed to $213.7 million to assist 1782 fishers, seafood processors and upstream providers to the fishing industry.[50]

Overall, the review found that the package had failed to deliver for stakeholders**.** In addition, it did not necessarily prevent displaced effort from having unsustainable impacts on the remaining fisheries, due to lack of catch and effort data at a sufficiently fine spatial scale. And, despite the high expenditure, most stakeholders felt the package had failed to adequately compensate them for the impacts of the zoning plan.

No quantitative assessment of the impacts of the zoning plan on fishers was undertaken prior to implementation of the package, which made it difficult to verify industry claims. Impacts of the zoning could not be disentagled from other external factors on the fishing industry such as weather events, increased fuel prices and adverse exchange rate shifts, amongst other things.

An exception to the Crown's 'no compensation' approach was made, in 2020, for the extension of marine mammal sanctuaries to protect Māui and Hector's dolphins. A Transition Support Funding Scheme totalling $7.1 million was established to support fishers who were significantly impacted by the closure (ie had a catch reduction of 20 per cent or more). Criteria for the funding included that the fisher held a current fishing permit, had fished in the area over the previous three years to a minimum level, and had not changed to a fishing method or area not impacted by the measures.

Hector's dolphins in Akaroa harbour. Financial assistance was provided to fishers affected by extensions of bycatch protections for Hector's and Māui dolphins

Fishers impacted to a lesser extent (but with more than a 10 per cent reduction in catch value) were provided with funded business advice. Licensed fish receivers, who were significantly affected by a lower fish supply, were also eligible for assistance but at a lower rate.[51] Notably, quota owners were not eligible for assistance. This scheme is not dissimilar to the approach taken in Tasmania (see spotlight).

Spotlight on Australian state fisheries compensation schemes

In Tasmania structural adjustment support is available to fishers affected by MPA creation. It is only to be provided where fishers can demonstrate "significant material hardship" as a result of the MPA and that there are "no feasible alternative areas or other options" for them to undertake their activities. The structural adjustment assistance can include payment of fair market value for surrender of a fishing licence or an ex gratia payment to compensate for the cost of readjustment.[52]

In Western Australia, the West Australian Fishing and Related Industries Compensation (Marine Reserves) Act 1997 establishes a mechanism to address the impacts of MPA creation or adjustment on fishing right holders. Affected persons must demonstrate that the market value of their entitlement has been reduced by the identified event (ie the MPA). The scheme focuses on the market value of the impacts of the MPA on the fishery, not the economic viability of individual fishers.

The unusual circumstances around the Kermadec Ocean Sanctuary, where the quota could not be fished elsewhere (due to the Sanctuary covering the entire FMA10), meant that an exception would also have been made there, if agreement to create the Sanctuary had been reached. This was not seen by Government as creating a precedent, as there would likely be no other cases where an entire fisheries management area was covered by an MPA (and therefore the entire quota held for that area rendered unfishable). As stated by then Environment Minister David Parker:[53]

> The Government had been clear that it was prepared to consider compensation for fishing rights that would have been suspended by the sanctuary. The cost of that would have been relatively modest, given that little commercial fishing takes place in the sanctuary area.

In future MPA reform, it would be possible to include an 'undue' or 'unreasonable' effects on fishing test, with no compensation payable if the test was met. There are already a number of such tests in legislation (see spotlight) which could be drawn on.

A spotlight on tests for adverse effects on rights and interests

Fisheries sustainability measures

Section 308 of the Fisheries Act provides that the Crown is not liable to pay compensation for measures to "ensure sustainability", including varying the TACC. "Ensuring sustainability" is defined under Section 8(2)(d) of the Act to include "avoiding, remedying or mitigating any adverse effects of fishing on the aquatic environment". Therefore any marine protection measures aimed at addressing the impacts of fishing on the marine environment do not generate liability for compensation under current law.

Marine reserves

The Marine Reserve Act is silent on the issue of compensation. However, a marine reserve cannot be created if it would "interfere unduly with commercial fishing" or "interfere unduly with" or "adversely affect" existing recreational fishing (see spotlight above for court interpretation of these tests).[54] On that basis, it has been a long established government practice not to offer compensation on the establishment of marine reserves.

Mātaitai reserves

Mātaitai reserves cannot be established if they "unreasonably affect" the ability of the local community to harvest fish non-commercially and "prevent" commercial interests taking their quota or ACE entitlement. In the North Island there are additional tests. The reserve must not "unreasonably prevent" commercial fishers from taking non-quota species and non-commercial fishers harvesting fish.[55] In the South Island, the additional test is not "prevent" commercial fishers from taking non-quota species, with no similar protection for non-commercial fishers.[56]

Wāhi tapu (under the MACA Act)

Conditions on wāhi tapu must not affect the exercise of fishing rights to the extent that they prevent fishers from taking their lawful entitlement in a quota management area or fisheries management area.[57]

Aquaculture

A marine farm cannot be established if it would have "undue adverse effects" on recreational, customary or non-quota commercial fishing. If it would have "undue" adverse effects on commercial fishing for quota stocks, it cannot proceed, unless an aquaculture agreement or compensation declaration is reached. The methodology to determine compensation is set out in regulations.[58]

Matters that are considered when reaching a decision on whether "undue adverse effects" arise include the proportion of any fishery affected, the degree to which the proposed farm would exclude fishing, the extent to which fishing that occurs in the proposed area could occur in other areas, the extent to which the marine farm would increase the cost of fishing, and the cumulative effect of the proposed farm on fishing.[59]

Land interests

A provision in a RMA planning document can be successfully challenged by a land owner if it "makes any land incapable of reasonable use" and "places an unfair and unreasonable burden on any person who has an interest in the land".[60]

If there is public aspiration for a much more meaningful MPA network, of say 20 or 30 per cent of the marine area, then the compensation issue may well arise. Determining the precise loss, and therefore a methodology for compensation, will not be easy as an MPA may be only one of many pressures that restrict access to fishing opportunities. In addition, a fisheries property right is not directly comparable to (say) title over land. At least three broad approaches to compensation are possible:[61]

- **Full acquisition:** most market economies enable Government to compulsorily acquire private property for public purposes and enable compensation to be paid. Because this is a complete removal of a property right, compensation generally aims to leave the property owner in the same financial situation as prior to the taking. Market value is therefore generally provided (eg fishery buy-back, structural adjustment schemes, decommissioning schemes).

- **Partial acquisition:** this generally applies where only part of a property is acquired (eg to widen a road, to protect critical habitat or establish buffer zones). The aim is to leave the owner in a similar position through compensating for the 'disutility' (eg acquiring a proportion of licence holders rights, reduction in TAC).

- **Compensation for damages or impact**: which may occur from changes to an MPA zoning that limits certain uses. Compensation again depends on the extent that value has reduced (eg compensation for loss of access resulting in catch reduction, income loss, need for new fishing gear, or moving to a less productive area).

In cases of very large MPAs, quota owners could be compensated for an immediate reduction in TACC to address displaced effort. But the MPA network may contribute to a longer-term rebuild of the fishery, so that the TACC ultimately increases, and there is no overall loss (and potential gain) to quota holders over a longer time period. Additionally, the MPA network may help strengthen the resilience of the fishery to other pressures, so that even if the TACC is not increased over time, a further reduction is avoided. It would be almost impossible to tease out the different impacts on the fishery from a MPA network, climate change, harvesting and land-based impacts.

An alternative approach might be for the Crown to buy quota or lease ACE and hold it in public trust for marine protection purposes (ie as an environmental quota holder). This would take ACE equivalent to the displaced effort out of the system without having to reduce the TACC. The balance of the ACE could then be utilised within the quota management area outside the MPA. If the stock then increased in size, the Crown could resell the quota to recoup its costs. The Crown could even pre-emptively buy up quota, when it is available at low cost on the market, for this purpose. This would not include Treaty settlement quota which cannot be sold out of Māori ownership, although ACE could be leased. If other quota is taken out of the system, this would mitigate impacts of MPAs on Treaty settlement quota, as the quantity of ACE iwi are able to lease out from it would be unaffected.

Additional assistance is likely needed for ACE fishers, who may stand to lose financially and even risk their entire business, if they are shut out from areas that form an important part of their fishery. Such assistance was provided in the case of fisheries restrictions to protect dolphins, as described above, and such an approach could be built on.

The Ngāi Tahu rebalancing proposals set out above, which were provided in the context of the SEMP, indicate a series of practical ways that impacts of spatial protections on customary fishers could be addressed. Their essence is that iwi should be integrally involved in the creation and management of MPAs.

It is important to acknowledge those adversely affected by MPA creation (even if only in the short-term), and to have an upfront discussion about how such impacts might be mitigated or compensated, if at all. The key is to be fair, to have respectful conversations, and to be creative about solutions.

Endnotes

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6 Key areas of convergence

Group meeting on Ōtata in the Hauraki Gulf to discuss marine conservation issues

> "There is so much common ground. Everyone has an interest in seeing the oceans as a plentiful healthy environment where you can fish, fish stocks are improving and recreational activities like diving provide tourist dollars."

Despite the sticking points described above, there *is* a lot that different sectors agree on when it comes to MPAs. This was most evident in our interviews, where views appeared to have softened over time, and were converging. We canvass key areas of broader agreement in the sections below.

6.1 Develop clear goals

> "[You need to be] clear about what you are trying to protect and advance a clear strategy around those areas."

Several interviewees emphasised the need to have clear goals for marine protection that answered the question – "what are you trying to protect and why"? They also highlighted the need for good information, on which to base trade-offs and compromises, when determining the best way to reach those goals.

6.2 Build in flexibility

Given the relative lack of information on the marine environment, and significant changes looming as a result of climate change, several interviewees emphasised the need to build flexibility into the MPA system. The marine reserve 'lock it up forever' model was seen as far too rigid.

> "One of the main things that makes people uncomfortable about marine protection is – if the fish move what do we do? When you lock off areas [fishers] can't adjust when they need to."

Flexibility could be built into the system through regular reviews of MPAs, and the ability to change boundaries and locations, as well as adjust rules over time. For example, it may be that a MPA proves too small to achieve its objectives and needs to be expanded, or that a large MPA has fulfilled its purpose, and can be reduced in size to a core area. It may turn out that a MPA is no longer in the right place and needs to be moved (see spotlight).

There is a fine line to be drawn here between certainty of protection and flexibility to adjust to changing circumstances. Some lessons could be drawn from the approach taken under the Fisheries Act, which envisages regular reviews and changes to sustainability measures as conditions change, albeit recognising that such flexibility has not always played out well in practice.

Spotlight on lack of flexibility in current MPAs

Marine reserves

The density of rock lobsters within the Cape Rodney-Okakari Point Marine Reserve increased for more than a decade after its establishment, in 1975, but then decreased after 1995, along with depletion of the broader fishery outside the reserve. Research undertaken on the movement of mature rock lobsters living in the reserve, in the early 2000s, found that they periodically moved offshore to feed on the sand flats located outside the reserve (which only extends 800 metres from the coast). This strongly indicated that animals were being harvested when they moved outside the reserve boundaries.[1] In short, the reserve was not large enough to protect an abundant population, and so the spillover effect of numerous adult rock lobsters moving across the reserve boundary and into the fishery was short-lived.

The Marine Reserves Act does not contain any provision to modify the boundaries of an existing marine reserve and so any extension would need to go through the fraught process required to create a new reserve. The Cape Rodney-Okakari Point Marine Reserve will be tripled in size under the Hauraki Gulf / Tīkapa Moana Marine Protection Bill. But this has necessitated special legislation, has yet to be promulgated, and it is now over 20 years since the problem was first identified.

Marine mammal sanctuaries

The Ōhau New Zealand Fur Seal Sanctuary was established off the Kaikōura coast, in August 2014, under the Kaikōura (Te Tai o Marokura) Marine Management Act 2014.[2] It was designed to protect the seal colony located at Ōhau Point from tourist disturbance. Less than two years after the seal sanctuary was created, in November 2016, the Kaikōura earthquake uplifted a 20 kilometre stretch of the Kaikōura coast by up to two metres. At Ōhau Point, the coastline was both uplifted and buried by large landslides which destroyed important habitat features including caves. In addition, State Highway 1 was rebuilt closer to the sea, which decreased the width of fur seal habitat on the Point by two-thirds.[3]

Fur seals now breed along much longer stretches of the Kaikōura coastline, and most breeding occurs outside the sanctuary. This indicates a need to extend the sanctuary boundaries.[4] The Kaikōura special legislation provides for sanctuaries to be varied but only if "the variation has no more than a minor effect or corrects errors or makes minor technical changes".[5] Under the Marine Mammals Protection Act, varying a marine mammal sanctuary requires the same process as creating an entirely new one.[6] Hopefully this issue can be addressed as part of the ten year Ministerial review, provided for under the Kaikōura statute, which is currently underway.

6.3 Use collaborative processes

"A bottom up approach is the best from a Treaty point of view".

There was strong support, amongst interviewees, for the use of collaborative processes to develop MPA proposals. The Fiordland Guardians and Te Korowai process in Kaikōura were both identified as good models to build on. Such bottom-up processes resonate more strongly with Māori, particularly if iwi or hapū and the use of customary tools are put at the heart the process.

"Te Korowai was the closest to best practice, putting hapū at the centre and core customary tools, and wrap around them a suite of other things – bag limits, marine reserves and sanctuaries – a package to create enhanced abundance and food quality."

These positive views were supported by a study of 13 New Zealand MPA processes, which found that there were fewer oppositional submissions to MPAs when collaborative processes were used, and that such processes enabled collective learning and capacity building within the groups.[7]

We were told that any collaborative processes need to be well run and inclusive. If the 'right people' are not at the table agreements can subsequently be rolled back. Participants should be empowered to speak on behalf of their sectoral group. Such processes require strong, clear objectives and scope; well-constructed terms of reference; and a skilled facilitator to keep things on track. Collaboration also needs to be well-supported and based on access to high quality information. Some supported a stronger national framing for collaborative discussions, such as through a revamped MPA Policy, thereby providing a mix of top down and bottom up approaches.

"[We need to] find a way to build trust so the conversation can be frank, transparent and honest, a genuine conversation about trade-offs and understanding people's livelihoods."

We were told that some fishers feel that the efforts they have made to protect important areas of the marine environment (either voluntarily or through fisheries regulations) are discounted by environmentalists, and this can lead to disillusionment and an attitude of 'why bother'. We were also told that strong policy and statutory incentives could help people reach agreement. This includes the outcome of collaborative processes being given legal recognition (so long as they have a robust process) so their fate does not entirely rest on the political whims of the government of the day.

6.4 Start with a broad remit

"Focusing on MPAs, with the ideological perspective of just trying to lock things up, is inconsistent with a Māori world view which calls for a more holistic conversation."

Biocultural conservation is starting to bridge the gap between the "polarizing all-or-nothing regime of commercial fisheries vs marine reserves. This 'space' is one that places emphasis on re-connecting social and ecological systems, with attention to both biological and socioeconomic objectives".[8] (Janet Stephenson et al)

Although there was strong support for collaborative processes, there was not similar support for focusing those processes solely on marine protection (as was the case with the MPA planning fora). A conversation that started with marine reserves, or MPAs, was seen as divisive. Instead, a broader frame which considered a range of desired economic, social, cultural and environmental outcomes was much more favoured.

This could include identifying areas for a range of purposes such as food production (eg wild harvest and aquaculture), renewable energy production (eg offshore wind), and marine tourism along with biodiversity conservation. It would also consider land-based impacts on the marine area. This would effectively bring MPA planning into a broader MSP framing (as was the case with the the Fiordland, Kaikōura and Hauraki Gulf processes), and is aligned with our proposals in Working Paper 1.[9] It enables a 'relational' approach to be adopted that recognises connected species, people and place and helps deliver co-benefits to local communities.[10]

"[For Fiordland and Te Korowai] you got community cohesion with good facilitators that fed off the energy ... The vibe at the meetings was really positive."

The Kaikōura marine area which is managed under special legislation and overseen by the Kaikōura Guardians

6.5 Use a range of tools

There is currently a wide range of tools in the marine protection toolbox and a combination can be selected for a particular location and set of stressors. All tools have their own strengths and weaknesses. For example, in the Bay of Islands, hapū sought protection under the RMA due to the other available tools being either too permanent (marine reserves) or not enduring enough (Fisheries Act section 186A closures which require reinstatement every two years).[11]

> Hapū were "seeking an alternative process which secures longer-term (generational) protection without the perceived ceding of sovereignty/rangatiratanga that they consider comes with Marine Reserves Act protection status".[12] (Victoria Froude)

There have been calls for better integration of MPAs with Māori customary management tools.[13] In the South Island, Ngāi Tahu has been proactive in reserving space for mātaitai reserves and taiāpure prior to marine reserves going ahead. On the Gisborne coast (as noted above), the Te Tapui Mātaitai O Hakihea Reserve was established on the northern boundary of the marine reserve with the intention it would benefit from reserve spillover. At Kaikōura, the collaborative planning process led by hapū resulted in the creation of two taiāpure, three mātaitai reserves, one marine reserve and two marine mammal sanctuaries which were designed to complement each other. These approaches could be built on.

It is also apparent that the tools under the Fisheries Act, including fisheries plans[14] and sustainability measures,[15] have not been fully utilised to protect the marine environment. In particular, there is considerable promise in using spatial fisheries tools to protect habitats of particular significance to fisheries management.[16]

There are also significant gaps in the toolbox. For a start, under the Marine Reserves Act, marine reserves cannot be created in the EEZ. Benthic protection areas only address impacts from certain types of fishing and not those from other activities such as seabed mining, renewable energy or aquaculture. The EEZ Act, which does manage these activities, lacks effective spatial protection tools and does not apply to fishing activity.[17] Rāhui as reflected in a Fisheries Act section 186A or section 186B temporary closure, has a maximum length of two years (which is not usually long enough for marine life to recover), and it needs to be reapplied for at the end of each term. A longer-term rāhui tool could have considerable utility. Tikanga and customary management measures could also be given statutory recognition.

> "We need a wider range of types of protected areas. Specificity about objectives would be a huge benefit."

The RMA provides a broad scope for marine protection in the territorial sea (it potentially applies to all activities) and has considerable flexibility (in that plans can be changed at any time and are required to be reviewed at least every 10 years). The Act tasks regional councils with "maintaining indigenous biodiversity" in the coastal marine area[18] and the New Zealand Coastal Policy Statement provides further direction on avoiding adverse effects on it.[19] This national direction could be further fleshed out, with a focus on marine protection. To the extent the RMA is replaced by new statutes such national direction could be brought over into the new regime.

The use of regional coastal plans to create MPAs has yet to be fully explored, although there are now precedents in the Bay of Plenty, Marlborough Sounds and Northland.[20] They have proved controversial because of impacts on fishing rights, and prospective changes to the RMA[21] threaten to weaken this innovative approach, which is usefully filling gaps in the MPA arsenal (see spotlight).

Spotlight on proposed changes to fishing rules in the RMA

The Court of Appeal has confirmed that regional councils can control fishing activity for RMA purposes including for maintaining indigenous marine biodiversity.[22] However, the government currently proposes to amend the RMA to restrict the circumstances in which such powers can be exercised, under the Resource Management (Consenting and Other System Changes) Amendment Bill 2024. Under these amendments, any rules that control fishing need to be included in the notified plan (and cannot be introduced later via submission). In addition, any proposal to include such rules in a plan needs to include an assessment of the impact on fishing and such assessment needs to be given to the Director-General of the Ministry for Primary Industries for concurrence to ensure the assessment has given appropriate consideration to fishing impacts, and provides clear and accurate information.

We heard divergent views on the value of creating MPAs in regional coastal plans, with the process being seen by some as expensive and

divisive.[23] However, others thought the RMA planning process was quicker than collaboration, while still providing mana whenua with a strong voice.

> "We were sitting in court with 25 lawyers for a week. Look at the money spent. Whereas with a better designed process where stuff happened up front you could have been more collaborative and less adversarial."

6.6 Drive action to address land-based impacts

> "A marine reserve doesn't change anything on land."

Interviewees frequently brought up the need to connect marine protection with addressing land-based impacts, primarily sediment. Sediment was seen to be having a significant negative impact on the health of the marine environment, thereby reducing the positive impacts of marine protection and good fisheries management. Fishers felt they were being targeted with marine reserves, because it was relatively easy to lock them out of areas, but little was being done about these broader stressors.

> "There are massive pulses of sediment coming into the marine environment … We need to empower communities [to address this] and rūnanga need to be at the heart of the empowerment."

MPAs *can* be used to compel action further up the catchment. The New Zealand Coastal Policy Statement requires councils to "avoid effects" of activities on areas set aside for biodiversity protection under other legislation (which includes marine reserves)[24] and we were told that this had been helpful in litigation over sediment flows into the Long Bay-Okura Marine Reserve. However, it is clear such linkages need to strengthened. As we highlight in the Marlborough Sounds and Otago Coast case studies, sediment flows into the marine area are generally not well-managed, and are cumulatively having a very damaging impact on marine ecosystems.

6.7 Integrate with broader oceans management

> "When Māori talk about marine rights and interests, they may speak of the ocean as a living entity, that extends from Aotearoa through the Pacific, interconnected across space and time from ancestors to future generations."[25] (Elizabeth Macpherson et al)

To be fully effective, MPAs need to be integrated into the broader oceans management system. This is highlighted in the Kunming-Montreal Global Biodiversity Framework Target 3, referred to above, which links the 30 by 30 commitment in the marine space to the integration of MPAs and other effective area-based conservation measures into wider seascapes. An even broader approach would be managing at the scale of 'aquascapes'.

> "Aquascapes is an emerging approach to integrate conservation, restoration and management of inland, transitional, coastal and marine waters. The approach recognizes the ecological, physical, biochemical, economic and social co-dependencies of connected aquatic systems and interconnected nature of their threats, biodiversity and ecological functioning."[26] (Brent Mitchell et al)

We have discussed the interface with land-based impacts above. The interface with fisheries management is also critical. If fisheries management is not effectively addressing impacts of fishing on the broader marine environment then the positive impacts of marine protection can be significantly reduced. This is why no-take areas overseas commonly have low-intensity fishing buffer areas around them (as highlighted above).

Poor fisheries management will also necessitate more extensive marine protection to assist overall ocean health. Simply stated, if fisheries management fails to pull its weight, then marine protection has more heavy lifting to do. The marked drop in rock lobster populations in the Cape Rodney-Okakari Point, Te Whanganui-a-Hei and Tawharanui marine reserves, when the adjacent CRA 2 stock plummeted,[27] is a case in point. The failure of fisheries management to effectively address the widespread development of kina barrens on the north-east coast, or the impacts of trawling and dredging on biogenic habitats, are other areas where there have been efforts to expand MPAs to fill the gap (including under the RMA).[28]

"If the quota management system is working well it should be dealing with the fishing side of the coin."

It also needs to be acknowledged that even well-managed fisheries fundamentally impact the structure of fish stocks, through intentionally fishing down larger fish, and increasing the proportion of younger year classes. Single stock-focused management also alters the relationship between species at different trophic levels. This was evident in our Otago case study where we found that, although the overall fish biomass in the trawl fishery had increased and was generally stable over time, the average trophic level had decreased. In particular, there was a reduction in fish occupying the mid trophic level (such as jack mackerels and red cod),[29] and this had in turn reduced the food supply for threatened species such as the hoiho (yellow-eyed penguin)[30] and Hector's dolphin.[31] MPAs may be able to assist with mitigating such effects.

It is important that MPAs and fisheries management measures are designed in tandem so they support each other. This could be achieved through wrapping MPA design within a broader MSP process which also considers place-based fisheries issues. The development of a regional fisheries plan (such as that for the Hauraki Gulf) can then aid implementation of the fisheries elements of the marine spatial plan.

Rāhui and temporary closure under the Fisheries Act on the Taranaki coast

6.8 Depoliticise the process

"You can spend years to get to the end of the process, and it's the decision-maker of the day that decides whether to go forward, despite efforts and conversations along the way."

Many interviewees highlighted problems with the current highly politicised nature of marine protection, where good work is put into process and concerted efforts made to broker agreements between the various parties, for it all to be undermined at the final hurdle when reaching the political arena and Ministerial decision-making. In addition, decisions in the courts can be changed by statute, as is being proposed for the *Motiti* Court of Appeal decision.[32]

"Ideally you want to take as much of the call [on marine protection] from the hands of government as possible as there are risks for everyone if government makes the call."

Currently the Minister of Conservation (with the concurrence of the Ministers of Fisheries and Transport) makes the call on marine reserves, and the Minister for Oceans and Fisheries makes the call on fisheries measures. Protections under the RMA are initially determined by regional councils, but finally on their merits by the Environment Court (if appealed), necessitating an expensive legal process. Special legislation, which has been utilised in several marine protection cases as noted above, ultimately requires approval by Cabinet and majority support in Parliament.

The provision of a stronger statutory decision-making framework for MPAs could help reduce politicisation, including clearly setting out MPA objectives, design principles and criteria for tool selection. Scrutiny of proposals by an independent panel could also be valuable, similar to the process for water conservation orders under the RMA, where a special tribunal (and in some cases also the Environment Court) considers the application and makes a recommendation to the Minister for the Environment for final approval.[33]

"Depoliticising the process would be helpful, maybe having the Minister sign off, but recommended by an expert tribunal or panel."

Marine area off St Kilda Beach, Dunedin, which is slated to be protected by the Ōrau Marine Reserve under the SEMP proposals

Endnotes

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23 For description of the process see, Peart R, D Koolen-Bourke and S Sidibe, 2024, *Restoring the sea: the role of marine spatial planning*, Environmental Defence Society, Auckland, at 35-38

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7 Making progress

Waikawa, Tōtaranui /Queen Charlotte Sound

"Which thing should we invest in first to shift the marine environment – oceans policy, strategy or MPA legislation?"

As described in chapter 3, MPA legislative reform has had a history of mis-starts, and there has been little progress over 25 years. This raises the question of how now to make tangible gains. The country cannot afford non-productive effort for another 25 years. We outline below some areas where we consider effort should be focused.

7.1 Progress legislative reform

A common thread running through the interviews was that policy reform, on its own, is unlikely to generate sufficient change. This was because policy does not have "any particular legal weight" and can be "turned on and off pretty quickly by Ministers of the day".[1] Statutory force is needed for MPA reform to be effective and enduring.

This raises the question of what form statutory reform should take. Should efforts to promulgate a new MPA Act be continued? Or should we strengthen the Fisheries Act, the RMA, and the EEZ Act to fill gaps? Or should MPA reform be wrapped up in a broader frame, say within an Oceans Act? Or should we abandon the prospect of new legislation altogether and amend the Marine Reserves Act instead? There are pros and cons with each approach.

"You need accountability and holding 'feet to the fire'. The advantage of a statute is that it provides leverage to get things done."

An MPA Act could build on the voluminous work that has already gone into legislative design. It would be more narrowly targeted (at marine protection) than an Oceans Act, but could address current deficiencies in the MPA system; lack of provision for Māori, dated tools, lack of integration between tools and the broader management system, and gaps in the toolbox. It could provide greater clarity on the objectives of marine protection and the role of various tools in achieving these. It could embed the core role of iwi and hapū within the system. It could address fisheries 'rebalancing' issues where merited.

Alternatively, much of this might potentially be achieved through amending the Marine Reserves Act itself, which might be more achievable within a three year Parliamentary term. This could be supported by a revised MPA Policy and new MPA standards. DOC could be tasked with developing an MPA Action Plan to identify priority locations where new collaborative processes could be supported.

"The [MPA] Policy has made an important contribution; however, the benefits of the Policy have been limited by its lack of statutory backing, processes have been prolonged, and many opportunities for improvement have been identified during its development and implementation."[2]

On the other hand, including MPA reform within broader legislation such as an Oceans Act could help better connect MPA efforts into a broader oceans management frame. It could be linked with statutory provision for place-based MSP, and an integrated national oceans strategy which could provide greater certainty for marine users. Many (but certainly not all) of our interviewees expressed support for integrating MPA identification into broader oceans planning efforts. However, while providing greater integration, this risks diluting a focus on marine protection and could take successive terms of government to achieve.

At the same time as undertaking MPA reform (whatever approach is taken), the Fisheries Act, RMA and EEZ Act could be strengthened to foster the use of their spatial protection tools. Some of this could be achieved through guidance, technical support and encouraging best practice. But in other areas legislative change may be required. For example, it could be helpful for spatial protection to be more explicitly linked to regional fisheries plans under the Fisheries Act, and to the protection of habitats of particular significance to fisheries. Customary management tools could be strengthened, including by providing for a longer-term rāhui-based tool.

National direction on MPAs could be promlugated under the RMA (or its successor), and provide a stronger framework for the utilisation of marine spatial protection by regional councils. The EEZ Act could include specific provision for the development of national direction on spatial protection and a new targeted tool for this purpose (which is notably absent). Both Acts could provide a more explicit framework for the identification and implementation of environmental limits within the marine area, which in turn could drive spatial protection.

Urupukapuka Island in the Bay of Islands which is an area that might benefit from a collaborative marine planning process given the proliferation of urchin barrens there

On balance we favour developing a new targeted piece of MPA legislation which would have clear objectives, and provide an updated set of tools and processes for marine protection. It could be linked to a broader Oceans Act, as well as be connected to strengthened fisheries, RMA and EEZ management regimes. It could be supported by updated MPA Policy, and a focused MPA Action Plan, both which could be given legislative teeth.

7.2 Build on key design principles

"If user and broader political support for [marine] reserves is to be secured ... far more attention will be required for clearer benefit or outcome measures, timelines, tools for implementation, and possible contingent adjustments, along with greater assessment of current and future cost/benefit trade-offs to users and communities."[3] (Gary Libecap et al)

Macpherson et al (2023) highlight the importance of "biocultural and flexible marine protection regimes that center Māori authority and allow for balanced and reciprocal protection and use of marine areas".

From the above analysis, it is possible to distil a number of key design principles to underpin the more detailed design of any new MPA legislation. We set these out below, not to imply that these are definitive in any sense, but primarily to provoke discussion around them.

(1) Provide a clear overall purpose for marine protection

   a. Prime focus on protection of indigenous marine biodiversity

   b. Protecting a range of marine communities, habitats and ecosystems

   c. Supporting climate mitigation, climate adaptation and ecosystem services

d. Strengthening human connection with the marine environment

e. Contributing to the health and productivity of the broader marine area (including fisheries)

(2) Ensure MPAs are well designed

a. Each MPA has a clear objective

b. Located in the right place to meet the purpose

c. Appropriately sized to provide the protection sought

d. The most appropriate protection tool is used to achieve the protection goal at site

e. Includes rules that enable MPA objectives to be met

f. Buffer areas provided for

g. Able to be enforced

(3) Provide a range of spatial protection tools with specific purposes, for example, they could include:

a. *Marine reserves* – high level of protection for marine ecosystems and biodiversity, ie no take with provision for customary practices, recreation and tourism

b. *Marine sanctuaries* – protection of identified species, including marine mammals and seabirds

c. *Marine restoration areas* – specific marine habitats protected and/or actively restored such as benthic habitats, kelp forests and mussel beds

d. *Marine parks* – large flexible multi-use areas which provide for customary use and low intensity fishing, as well as education, recreation and tourism

These would be in addition to other tools that contribute to spatial marine protection, including customary management measures and tools under the Fisheries Act, RMA and other legislation.

(4) Use collaborative processes to design networks:

a. Provide a clear policy framework for collaboration (in a revamped MPA Policy)

b. Use bottom-up collaborative processes where possible

c. Provide appropriate central government funding

d. Centre iwi, hapū and whānau at the heart of the process

e. Ensure appropriate mandate of participants

f. Include a wide remit to consider socio-economic-cultural outcomes, as well as environmental, along with all stressors on the marine environment (including land-based)

g. Give legal weight to the outcomes of collaborative processes

(5) Address impacts on fisheries:

a. Design MPA networks to minimise fishing impacts without compromising biodiversity objectives

b. Define a test for when impacts of MPAs on fishing are 'unreasonable' and redress may be merited

c. Where displaced fishing effort significantly affects stock sustainability, provide adjustment measures

d. Consider structural adjustment support for significantly affected quota owners and ACE fishers

e. Design measures to avoid displaced recreational fishing effort (such as reduced bag limits, size limits)

f. Design appropriate non-commercial customary fishing redress with affected iwi and hapū

(6) Address Treaty rights and interests:

a. Acknowledge and respect tikanga and rangatiratanga, and core Māori concepts associated with the marine space and taonga, including its mana and mauri

b. Support indigenous-led management of marine areas which reflects tikanga and rangatiratanga

c. Ensure Māori values, rights and aspirations inform the identification of prospective MPA sites and of areas to be avoided

d. Foster incorporation and active use of mātauranga Māori, applying it alongside mainstream science

e. Enable formal recognition and inclusion of mana whenua-led protected areas within MPA networks (where sought)

(7) Build in flexibility:

a. Provide for regular reviews of MPAs including the ability to adjust boundaries, location and rules

b. Provide for future MPA planning and enable gaps in the MPA network to be filled

(8) Ensure effective and active management:

a. Provide clear management objectives for each MPA

b. Support co-management with iwi/hapū and community

c. Provide for active restoration activities

d. Ensure regular monitoring and public reporting

e. Ensure effective enforcement (cross agency)

f. Provide iwi, hapū and community rangers with enforcement powers

g. Provide a reasonable degree of preference for mana whenua in the issue of concessions or permits within MPAs

(9) Ensure adequate resourcing:

a. Provide a clear budget line for MPA establishment and operation

b. Ensure commercial users of MPAs contribute to resourcing (such as through concession fees)

c. Consider other funding measures (eg levies on marine users)

Water-borne transport to Resolution Bay cabins, Endeavour Inlet, Marlborough Sounds

Spotlight on Canadian Indigenous Protected and Conserved Areas

Canada has been at the forefront of recognising the role of Indigenous peoples in protected areas through supporting Indigenous Protected and Conserved Areas (IPCA).[4] The approach is based on three tenents: (a) that protected areas can be indigenous led; (b) they represent a long-term commitment to conservation; and (c) they can be utilised to "elevate Indigenous rights and responsibilities."[5] In the marine space, IPCAs are seen as contributing to both "reconcilitation and ocean conservation goals".[6]

The Assembly of First Nations has provided a series of recommendations for how the Federal Government can better support the establishment of marine IPCAs including (amongst many other things):[7]

- Creating a 'First Nations Nature Table' (a technical body) to work with agencies to jointly address how IPCAs can help the country meet its international conservation commitments
- Requiring oceans and fisheries agencies to participate in collaborative governance initiatives with First Nations to support the planning, establishment and management of marine IPCAs
- Conducting pilot studies to learn from and further develop the government's support for IPCAs
- Adopting an 'Ethical Space' approach, when engaging with First Nations, to create open dialogue that can support meaningful, respectful and cross-cultural discussion
- Ensuring cultural objectives are included alongside ecological ones in establishing IPCAs
- Establishing a marine IPCA Establishment Fund and Permanence Fund to support IPCA creation and long-term implementation
- Modifying existing legislation to create designations that provide more flexibility for co-designation, enable joint 'decision-making tables' and recognise and value Indigenous laws and authorities
- Enabling First Nations to collect user fees and permits in IPCAs.

7.3 Start collaborating now

"MPAs are most likely to be successful over the long term if local users and their communities are directly engaged in the design and execution of reserves."[8]

We are realistic about the prospects of achieving new MPA legislation in the short term, and acutely aware of the need to make progress now, given the perilous state of many of our coastal marine areas. We note from the above analysis, that over the past two decades, most progress has been made under the current (albeit sub-optimal) system through collaborative processes.

We also observe that there are no collaborative marine planning processes currently underway, with the Sea Change Tai Timu Tai Pari process reporting back in late 2016 and the SEMP Forum process in February 2018. Now is the time, we would argue, to put effort into establishing further collaborative processes, especially in areas subject to multiple and cumulative impacts on the marine environment. There is much experience from collaborative processes around the country that can be built on (and we reviewed several of these in Working Paper 1).[9]

"We need to construct something between a MPA and a MSP process, something which has a stronger framework but a wider conversation."

The first cab off the rank could be the Marlborough Sounds, where there is significant degradation of marine habitats alongside fisheries depletion, as highlighted in our Marlborough Sounds case study report.[10] There, the Kotahitanga mō te Taiao Alliance between Te Tauihu iwi and central and local government could provide a strong supporting umbrella for a collaborative process focused on marine restoration.

Hawkes Bay was also identified as a candidate area, by some interviewees, given the already established collaborative Hawke's Bay Marine and Coastal Group. There, the impacts of Cyclone Gabrielle on top of high levels of sedimentation and bottom trawling has impacted the seabed, with ongoing loss of biogenic habitats and depletion of inshore stocks.[11]

The Bay of Islands/Northland area would also likely benefit from a collaborative planning process given the current extent of kina barrens and growing threat from the subtropical long-spined urchin.[12] There are also likely to be other candidate areas.

"Today the Bay of Islands presents one of the most extreme and extensive areas of 'sea-urchin' barren in the country."[13] (John Booth)

Such processes will ideally be initiated locally but may require council or central government impetus. They will need good support. Iwi and/or hapū need to be integrally involved if not in the driving seat. A highly skilled independent facilitator will be required to shepherd the collaborative process through to a positive conclusion. Relevant information, including from mātauranga Māori (when made available), local knowledge and mainstream science, will need to be collated and provided in a format (included spatially) that is useful to lay people.

The scope of the process needs to be broad enough to encompass key stressors on oceans health, and socio-economic-cultural considerations, and it needs to be given adequate time to reach a consensus result (likely at least three years).[14] There needs to be some surety that the results of the collaborative process will be taken forward (even if special legislation is required to achieve this). Importantly, the collaborative groups need longevity to oversee implementation.

The Marlborough Sounds, Hawke's Bay and the Bay of Islands/ Northland could be candidate areas for collaborative marine planning processes.

Endnotes

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8 Conclusions

Overlooking Tawharanui Marine Reserve

"We all need to realise that we are in this waka together. Despite our ongoing disputes we are letting the side down, we are not meeting our kaitiaki responsibilities. There's a bigger more important picture here. At some point you have to lay the challenge down to both sides."

New Zealand is now far behind international best practice in MPA legislation and policy. The country is also far from adequately contributing to international commitments for the establishment of representative networks of MPAs. At the same time, the degradation of our marine environments is escalating. The current MPA system has long not been fit-for purpose and there is strong consensus around the need for change.

In this report we have identified tricky areas that will need to be negotiated to successfully effect MPA reform. But there are many areas on which there is broad consensus, and these can be fruitfully built on. It is also clear, overall, that the greatest progress on MPAs has been made through collaborative processes and New Zealand has rich experience in this area which can provide a strong platform for future efforts.

There is no time to be wasted if we are to retain our unique indigenous marine biodiversity and rebuild healthy marine systems. While progressing MPA legislative reform, which we consider vital, we need to simply get on with the job. For this reason, we have recommended establishing further collaborative marine planning processes without delay.

We will be further developing our recommendations on MPA reform in our final oceans report due mid-2025. In that report, we will also be working up propositions for progressing MSP and national integrative mechanisms such as an Oceans Commission, National Oceans Strategy and Oceans Act. We welcome all constructive feedback on the analysis and propositions contained in this working paper.

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New Zealand is now far behind international best practice in MPA legislation and practice. The country is also far from meeting its international obligations. At the same time, the degradation of our marine environments is escalating. The current MPA system has long not been fit-for purpose and there is strong consensus around the need for change.

In this report we have identified tricky areas that will need to be negotiated to successfully effect MPA reform. But there are many areas on which there is broad consensus, and these can be fruitfully built on. It is also clear, overall, that the greatest progress on MPAs has been made through collaborative processes and New Zealand has rich experience in this area to build on.

There is no time to be wasted if we are to retain our unique indigenous marine biodiversity and rebuild healthy marine systems. While progressing MPA legislative reform, which we consider vital, we need to simply get on with the job. For this reason, we have recommended establishing further collaborative marine planning processes without delay.

Environmental Defence Society

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