Aotearoa New Zealand's Climate Change Adaptation Act:
Building a Durable Future

DESIGN RECOMMENDATIONS FOR A CLIMATE ADAPTATION ACT

Final Report

Raewyn Peart

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List of Acronyms

DAPP	Dynamic Adaptive Pathways Planning
EDS	Environmental Defence Society
Expert Working Group	Expert Working Group on Managed Retreat
IPCC	Intergovernmental Panel on Climate Change
LGOIMA	Local Government Official Information and Meetings Act 1987
MFE	Ministry for the Environment
NIWA	National Institute of Water and Atmospheric Research
NZCPS	New Zealand Coastal Policy Statement
RMA	Resource Management Act 1991
Te Tiriti	Te Tiriti o Waitangi/Treaty of Waitangi

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1 Introduction

Eroding coastal cliffs, Stanley Point, Auckland

In June 2022, the Environmental Defence Society (EDS) commenced a project titled *Aotearoa New Zealand's Climate Adaptation Act: Building a Durable Future* to develop recommendations for the content of a new Climate Adaptation Act. This was in response to the government's expressed intention to develop new law to address the complex and distinctive issues associated with managed retreat such as funding, compensation, land acquisition, liability and insurance.[1]

In February 2023, EDS released its first working paper for the project, titled *Principles and Funding for Managed Retreat*. The paper focused on conceptualising 'managed retreat' (also referred to in this report as 'managed relocation' or 'planned relocation') and explored what principles might underpin a new system and how it might be funded. Working Paper 2 *Current Legislative and Policy Framework for Managed Relocation*, released in May 2023, described and evaluated the adequacy of the current law and rights-based systems applicable to managed relocation.

Working Paper 3 *Options and Models for Managed Relocation Policy* was released in December 2023 and focused on identifying options for reform. This drew on lessons learnt from national and international case studies and brought together options into two models for a potential reform package.[2]

This final report, *Design Recommendations for a Climate Adaptation Act*, builds on the foundations established by the three working papers and sets out concrete recommendations for the design of a Climate Adaptation Act.

1.1 Policy context

> "A record number of 17 weather-related states of emergency have been declared in New Zealand in 2023; the norm used to be one or two per year" (*Distinguished Professor Robert McLachlan*).[3]

Since the inception of EDS's climate adaptation project there have been a number of policy-relevant events. These are summarised in Figure 1. They include the Auckland Anniversary floods and Cyclone Gabrielle, the release of recommendations by the Expert Working Group on Managed Retreat (Expert Working Group)[4] which government commissioned to develop advice about the practical, legal and financial aspects of enabling managed retreat, and the initiation of a public inquiry into climate adaptation by the Environment Select Committee.

A change of government, late in in 2023, brought significant changes to the legislative context for managed relocation policy. The Natural and Built Environment Act 2023 and Spatial Planning Act 2023 were repealed, just before Christmas, with a return to the Resource Management Act 1991 (RMA) as the primary environmental and land use planning statute. Such an abrupt shift in policy direction, with the new government, highlights the critical importance of achieving cross-party support for any climate adaptation policy so it can endure over the long term.

The coalition agreements between the governing parties provide for the RMA to be amended to make it easier to consent new infrastructure and housing, and then for it to be replaced with new law premised on "the enjoyment of property rights as a guiding principle".[5] It is not yet clear what this policy shift might mean for managed relocation policy. However, it will be important that any reforms have sufficient protections to prevent housing and infrastructure establishing in hazardous areas, to avoid exacerbating the country's already significant climate adaptation challenge. Risk reduction for existing development in high risk locations will also need to be enabled.

This report seeks to provide recommendations which can be adapted to the new policy environment as it evolves. In particular, the Natural and Built Environment Act and Spatial Planning Act included legislative provisions designed to support effective climate change adaptation. In this report, where relevant, we have recommended how the RMA could be amended to incorporate (and where necessary strengthen) such provisions.

Coastal erosion, Hahei Beach

Date	Event
January-February 2023	Auckland Anniversary Weekend rainfall event, followed by Cyclone Gabrielle, caused significant damage with 15 lives lost and an estimated economic cost of $14.5 billion. Over 700 houses are now considered unsafe to re-occupy, the majority of which are in Auckland[6]
June 2023	Future for Local Government Review Panel released its final report
July 2023	Māori Affairs Select Committee reported on its briefing on Māori climate adaptation
August 2023	Expert Working Group on Managed Retreat published its proposed system for te hekenga tauora/planned relocation
	The Ministry for the Environment (MFE) issued a discussion document titled *Community-led Retreat and Adaptation Funding: Issues and Options*
	Environment Select Committee initiated a public inquiry into climate adaptation (submissions closed 1 November 2023)
	Natural and Built Environment Act and Spatial Planning Act enacted
September 2023	MFE released a proposed National Policy Statement for Natural Hazard Decision-Making (submissions closed 20 November 2023)
November 2023	New National, ACT and New Zealand First coalition government sworn in
December 2023	First homes bought out after Auckland Anniversary Floods/Cyclone Gabrielle
	Natural and Built Environment Act and Spatial Planning Act repealed
February 2024	MFE released *Coastal Hazards and Climate Change Guidance*

Figure 1: Recent events relevant to managed relocation policy

1.2 Methodology and structure of report

This final report focuses on legislative provisions for managed relocation. It draws on EDS's previous analysis in Working Papers 1, 2 and 3. These incorporated lessons from national and international case studies on managed relocation as well as an in-depth case study focused on Ōmana ki Umupuia (including the Auckland coastal suburb of Maraetai), which involved interviews with 56 residents and non-residents and engagement with Ngāi Tai ki Tāmaki. We also undertook 12 in-depth interviews with planning and climate adaptation practitioners in Aotearoa New Zealand to obtain a deeper understanding of practice on the ground. In addition, contributions and advice were obtained from Te Ahi Tūtata, the Beca Māori Advisory Service.

Rather than repeating the content of the three working papers, this final report largely builds on that material. For this reason, we recommend that readers refer to the earlier work for the foundations of the recommendations presented here. The working papers can be accessed at https://eds.org.nz/our-work/policy/projects/climate-change-adaptation/.

In Working Papers 2 and 3, we divided the process of climate adaptation (including managed retreat) into a number of key steps. We have broadly used these steps to structure our recommendations in this final report on the new Climate Adaptation Act. They are:

1. Identifying, assessing and communicating risk
2. Preventing development in areas subject to high risk
3. Undertaking adaptation planning
4. Acquiring properties and providing compensation
5. Relocating settlements and developing new settlements (when required)
6. Post-relocation land management

In Chapter 2 of this report, we discuss why Aotearoa New Zealand might need policy on managed relocation, including a new Climate Adaptation Act. In Chapter 3 we propose what the purpose and principles of new legislation might be. We address the assessment of climate risk and how this might be undertaken on a regional basis, in Chapter 4. Chapter 5 grapples with how we might strengthen development control in areas subject to high climate risk. In Chapter 6 we look in some detail at arrangements for local adaptation planning. This includes providing a framework for adaptation planning as well as provisions for its purpose, content of plans, process for plan development and implementation. Chapter 7 focuses on the legal powers needed to acquire property and arrangements for public compensation. Chapter 8 then explores the actual relocation process including the establishment of a dedicated agency to oversee it, development of relocation programmes, and arrangements for the withdrawal of services. Finally, in Chapter 9, we consider provisions for the management of land post-relocation.

1.3 Terminology

Before getting into the substance of the report it is useful to have clarity regarding the terminology used.

Risk

The first key concept is risk. The Intergovernmental Panel on Climate Change (IPCC) defines risk as "the potential for adverse consequences for human or ecological systems, recognising the diversity of values and objectives associated with such systems". When applied to climate change, the definition includes both the *impacts* of climate change and *responses* to it. Examples of adverse consequences include negative influences on lives, livelihoods, wellbeing, investments, infrastructure, ecosystems and species. The definition acknowledges that individuals will have different points of view on what constitutes a risk.[7]

The IPCC definition draws on the 'hazard- exposure-vulnerability' system that underpins most climate risk assessments, where:[8]

- *Hazard* is the potential occurrence of a natural or human-induced physical event or trend that may cause loss of life or injury as well as damage or loss to property, infrastructure, livelihoods and service provision by natural resources.
- *Exposure* is the quantity of people, property, structures, species or ecosystems that could be adversely affected.
- *Vulnerability* is the propensity or predisposition to be adversely affected and includes sensitivity or susceptibility to harm and/or lack of capacity to cope and adapt.

The interaction between these three elements creates risk and is dynamic. Uncertainty is inherent in the concept of risk and all its three

elements. Not only is the magnitude and frequency of hazards not known, because of uncertainty around climate change, but also exposure and vulnerability to them. For example, social or economic policies could either increase or decrease a community's vulnerability to coastal erosion and flooding, by undermining or helping to create resilience. Likewise, a species may migrate away from an area exposed to coastal erosion, thereby reducing its vulnerability to climate induced hazards. The IPCC definition emphasises the importance of being explicit about the uncertainty levels in defining risks.[9]

Natural hazard and climate risk

In this report we refer to 'climate change risk' (or 'climate risk') as well as the broader category of 'natural hazard risk'. In the RMA "natural hazard" is defined as:

> any atmospheric or earth or water related occurrence (including earthquake, tsunami, erosion, volcanic and geothermal activity, landslip, subsidence, sedimentation, wind, drought, fire, or flooding) the action of which adversely affects or may adversely affect human life, property, or other aspects of the environment.[10]

The Proposed National Policy Statement for Natural Hazard Decision-making expands that definition to explicitly include "natural hazards arising from the effects of climate change".[11]

The concepts of natural hazard risk and climate risk are integrally intertwined. In some cases, climate change may increase the risk from an existing natural hazard (eg increase the frequency and intensity of flooding), rather than create the risk in the first place (eg the land may have historically flooded). In other cases, climate change may create a new risk, such as coastal erosion caused by rising sea levels. In yet other cases, the natural hazard risk may be unrelated to climate change (ie earthquake or volcanic risk). Often risks are cumulative (eg the small town of Franz Josef is subject to both flood and earthquake risk). A place may no longer be safe for settlement due to natural hazard risk, climate risk or a combination of both, and managed relocation may be the most cost-

Coastal erosion at Mokau

effective and least risky long-term solution. In our view, it makes sense for new legislation to be broad enough to encompass all such natural hazard risk situations rather than artificially distinguishing between them.

Risk tolerance

Once risk has been identified, it is important to understand the significance of the risk, and the extent to which it is acceptable or needs to be reduced. This is so appropriate management responses can be developed. The Earthquake Commission has usefully defined key terminology applicable to risk tolerance in its recent publication *Risk Tolerance Methodology*. The key terms and management implications are shown in Figure 2.

Different but largely aligned concepts have be used in the Proposed National Policy Statement for Natural Hazard Decision-making which contains the following definitions and management responses:[12]

- *Low natural hazard risk* means a risk from natural hazards that is generally acceptable [ie acceptable risk]. New development is to be enabled.

- *Moderate natural hazard risk* means a risk from natural hazards that is more than a low risk but is not intolerable (a subtly different concept to "tolerable risk" as defined in Figure 2). Mitigation measures are required to reduce natural hazard risk to new development to as low as reasonably practicable.

- *High natural hazard risk* means a risk from natural hazards which is intolerable [ie intolerable risk]. New development is to be avoided (unless a range of criteria are met).

Level of risk	Description	Management response
Acceptable (low)	Risk is broadly acceptable.	Activity can occur with limited controls or restrictions. Ongoing monitoring of risk.
Tolerable (significant/ moderate)	Risk is accepted if the benefit gained is shown to outweigh the risk (ie the cost of reducing the risk further would be grossly disproportionate to the benefit gained) and communities can cope with the impacts from natural hazard events.	The sustainable use of land can continue with effective risk reduction measures. Ongoing monitoring of risk.
Intolerable (high)	Risk cannot be justified except in extraordinary circumstances.	Activity must cease until risk is removed or reduced.

Figure 2: Key terminology for risk tolerance[13]

Endnotes

1 Ministry for the Environment, 2022, *Adapt and thrive: Building a climate resilient New Zealand: Draft national adaptation plan: Managed retreat*, New Zealand Government, Wellington

2 The working papers, along with other project-related material, can be accessed at https://eds.org.nz/our-work/policy/projects/climate-change-adaptation/

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4 Ministry for the Environment, 2023, *Community-led retreat and adaptation funding: Issues and options*, Ministry for the Environment, Wellington

5 See Coalition Agreement between the New Zealand National Party & ACT New Zealand, 24 November 2023 and Coalition Agreement between the New Zealand National Party & New Zealand First, 24 November 2023

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8 Maher S, 2023, *Case study:* Ōmana *ki Umupuia*, Environmental Defence Society, Auckland, 21

9 Maher S, 2023, *Case study:* Ōmana *ki Umupuia*, Environmental Defence Society, Auckland, 22

10 Section 2, Resource Management Act 1991

11 Clause 1.4, Proposed National Policy Statement for Natural Hazard Decision-making 2023

12 Clause 1.4, Proposed National Policy Statement for Natural Hazard Decision-making 2023

13 Earthquake Commission, 2023, *Risk tolerance methodology*, Earthquake Commission, Wellington, 6

2 The need for managed relocation policy

Houses at Clover Drive, Henderson, Auckland vacated due to the Auckland Anniversary Floods

In Working Paper 1 we outlined the climate change challenges facing Aotearoa New Zealand and why managed relocation policy was urgently needed. To provide context for the following chapters in this report we briefly reprise that material here.

2.1 Increasing climate risks

> "Two-thirds of New Zealanders live in areas prone to flooding and rising sea levels" (*Ministry for the Environment and Stats NZ*).[1]

There is no scientific doubt that the atmosphere is warming and the seas rising. As the recent *Atmosphere and Climate 2023* report by MFE and Stats NZ highlighted, extreme weather events will become more frequent and intense due to climate change.[2] River and coastal flooding is projected to increase as is coastal inundation due to wave run-up and storm surge.[3] Around 750,000 people and 500,000 buildings are currently exposed to extreme flooding[4] and many more will be subject to such risks in the future.

> "These severe weather events are only going to get more frequent and worse. We're experiencing the best weather we're going to see in our lifetimes, now" (*Dr Caralee McLiesh, Secretary to the Treasury).*[5]

For an island nation such as Aotearoa New Zealand, with more than 15,000 kilometres of coastline, the prospect of slow onset sea level rise is even more alarming. Around 65 per cent of New Zealanders and significant amounts of public infrastructure (including roads, railway lines, airports and wastewater services) are located within 5 kilometres of the coastal edge.[6] The country's seas are already rising due to warming water, and by 2100 this rise is expected to reach between 0.4 and 1.1 metres, depending on how global carbon emissions track and polar ice-sheets respond. The increase by 2150 is predicted to be between 0.7 and 2 metres.[7]

Such changes in sea level will have profound impacts on communities right around the country. Projections by the National Institute of Water and Atmospheric Research (NIWA) indicate that just a 0.3 metre increase in sea level will result in around 30 per cent more land being regularly flooded.[8]

In addition to sea level rise, many coastal areas are subject to the vertical movement of land due to tectonic plate activity. In some areas, where the land is rising, the sea level rise impacts will be moderated. But in other areas, sinking of the land will make things much worse. About 40 per cent of New Zealand's coastline is subsiding, particularly around the lower North Island and upper South Island.[9]

The country is particularly vulnerable to climate change impacts due to most major cities, as well as numerous towns and other settlements, being built on floodplains or near the coast.[10] For some of these settlements, the

only practicable response to increasing climate risks will be relocating to safer areas.

2.2 Implications for Māori

The adverse impacts of climate change, especially sea level rise, have significant implications for Māori land (including customary and Treaty settlement land) and the many rights and interests of iwi/hapū. For example, of the almost 800 marae in the country, around 80 percent are located in low-lying coastal areas or near flood-prone rivers.[11] Of these, almost 200 are within one kilometre of the coast, and several dozen are likely to be vulnerable to sea level rise during the remainder of this century. A range of other valuable cultural assets are at risk from climate change including Māori burial sites, mahinga kai, hunting sites and places of historical significance.

Climate change will also create risks for the Māori business economy. Natural resource-based sectors dominate Māori investments, with interests in agriculture, fishing and forestry totalling some $23.4 billion.[12] Māori are also significant tourism operators. In 2017, around six million visitors engaged in activities associated with Māori tourism, generating $1.7 billion in foreign exchange and employing 14,000 people.[13]

In order to more deeply understand the implications of climate change for Māori it is important to frame the issue within its historical context. Prior to colonisation during the 19th century, all land and marine areas in Aotearoa were communally held and managed according to tikanga. After the signing of Te Tiriti o Waitangi/Treaty of Waitangi (Te Tiriti), the Crown acquired large areas of Māori land, both through purchase and later confiscation under the New Zealand Settlements Act 1863. After just two decades, around two-thirds of the entire country was alienated. Further land was lost to Māori after the individualisation of land title under the Native Lands Act 1862.[14] As highlighted by the Waitangi Tribunal, in its *Muriwhenua Land Report*, such broad scale land dispossession was undertaken with little thought for the wellbeing of Māori:

> In all, the Muriwhenua claims are about the acquisition of land under a show of judicial and administrative process. They concern Government programmes instituted to relieve Māori of virtually the whole of their land, with little thought being given to their future wellbeing or to their economic development in a new economy. There is little difference between that and land confiscation in terms of outcome, for in each case the long-term economic results, the disintegration of communities, the loss of status and political autonomy, and despair over the fact of dispossession are much the same.[15]

Currently, only about 5 per cent of the country (some 1.47 million hectares) remains as "Māori land".[16] Its administration is overseen by the Māori Land Court under the Te Ture Whenua Māori Act 1993 with the objective of retaining the land in Māori ownership, facilitating its occupation, use and development, and protecting wāhi tapu.[17]

> Through whakapapa, as well as language, stories and traditions (such as karakia, whakatauki, pūrākau, waiata and mātauranga), Māori strongly identify with landmarks such as maunga/mountains and awa/rivers. Māori also maintain their connection with place through activities such as visiting their marae or swimming in their awa. The loss of such places can undermine a sense of identity as well as threaten the health and wellbeing of Māori communities.

Any proposals for managed relocation must be sensitive to this history of Māori land dispossession. Its traumatic impacts are still felt by many Māori communities, with a consequent reluctance to move off remaining Māori-owned land. For some, the depth of connection to the whenua on which their homes or marae sit and fear of losing mana whenua (customary authority), far outweighs the imminent risk posed by climate change. Any managed relocation policy will need to recognise the importance, as highlighted in the Te Ture Whenua Māori Act, of retaining Māori land in Māori ownership.

2.3 Implications for nature

Climate change will have profound impacts on nature, and these will further heighten the biodiversity crises which Aotearoa New Zealand faces, with more than 4,000 species currently threatened.[18] However, climate adaptation discussions often give little consideration to what managed relocation may mean for nature; or any recognition of the need for species to retreat from climate hazards alongside humans.

Coastal, river and floodplain ecosystems are some of the most threatened by climate change, and yet they support a wide range of indigenous flora and fauna that will be unable to survive outside such habitats. These ecosystems also provide critical services to humans; coastal and floodplain ecosystems regulate floods while saltmarshes, mangrove forests and seagrass meadows store carbon and contribute to climate change mitigation and adaptation.[19]

Despite their evident importance, coastal, river and floodplain ecosystems have experienced some of the greatest rates of historic loss. This has been

through the development of land for agriculture and urban development, and the modification of river systems through water abstraction, flood protection schemes and land conversion. Functionally intact remnants are often fragmented, modified and vulnerable to further loss due to threats such as non-native pests, pollution and ongoing habitat loss. The species that live in these places are some of the most threatened in the country.[20]

The most vulnerable ecosystems will likely be those associated with low-lying soft sediments, intertidal areas, estuaries, lagoons, beaches, sand dunes and mud/sand flats.[21] 'Coastal squeeze', where the migration of coastal habitats is constrained by natural or constructed barriers, is expected to affect many of the country's estuaries and lagoons.[22]

Vulnerability of species to the impacts of climate change will, in many cases, be heightened by the already degraded state of ecosystems thereby increasing the severity of the risks.[23] In particular, fragmented, reduced and isolated populations will likely be less resilient and therefore at much greater risk of loss.[24] Adaptation planning will need to, not just protect humans, but also preserve and regenerate natural systems that will become increasingly impacted.

2.4 Potential adaptation responses

Managed retreat or managed/planned relocation is an adaptation response to climate induced and other natural hazard risks. Simply put, it involves the "purposeful, coordinated movement of people and assets out of harm's way".[25] It is one of a range of possible adaptation responses to known risk. Other responses include avoiding the risk in the first place, such as by preventing new development in risk prone areas; reducing the risk (at least in the short term) by creating soft or hard defences to coastal erosion and flooding; and accommodating erosion/flooding events through such measures as raising the floor levels of buildings and establishing floodwater detention facilities (see Figure 3).

> "To keep New Zealanders safe, and insurance available and affordable, we must reduce flooding and natural hazard risk through good planning decisions, investment in protection and resilience measures, and where necessary, through relocating people away from at-risk properties" (*Amanda Whiting, Chief Executive, IAG New Zealand*).[26]

Such responses are closely inter-related. For example, building seawalls may serve to delay the need for managed relocation by some decades. Removing some seawalls but retaining others, through a managed realignment process which floods some land to reduce the risk to remaining properties, involves a blending of defend and retreat strategies. Avoiding development in risk prone areas, in the first place, can avoid the need for managed relocation entirely. It is therefore important to consider managed relocation in the context of other potential adaptation responses, particularly when undertaking adaptation planning.

Avoid	**Protect**	**Accommodate**	**Relocate**
Prevent new development in risk prone areas	Reduce risk through measures such as dune restoration, seawalls and stopbanks	Reduce potential damage such as by raising the floor level of buildings	Move people and infrastructure away from risk prone areas

Figure 3: Types of adaptation responses

From an ecological perspective, the adaptation response which is adopted in the face of climate and other risks is particularly significant. Resorting to hard protection structures such as sea walls, groynes and breakwaters will often result in 'coastal squeeze' with consequent adverse effects on indigenous species, ecosystem functioning and associated ecosystem services. Many effects will be practicably irreversible, as the cost of fully rehabilitating areas impacted by hard structures will likely be prohibitively high. Such structures should therefore only be proceeded with after carefully examining their long-term impacts, as well as considering other adaptation options (including managed relocation).

Responses to climate risk do not necessarily need to be 'managed' as such. Public authorities can take a hands-off approach, to the location of urban development in the first place, to any subsequent damage due to weather events and to the need to relocate. Individuals and their insurers (to the extent that insurance cover is available and has been obtained) could be left to bear the costs of their response to climate risk and any damage which results.

Under such circumstances, relocation (if it occurs at all) is only likely to take place post-event, after damage has occurred and an insurance payout is available to cover at least some of the costs of moving. Those without the means to leave, will be effectively trapped in an increasingly risky environment, until their homes are deemed unsafe to occupy and they are forced to abandon them. Councils will remain obligated to provide services to remaining properties, likely at high cost.

"As risks increase over time, insurers begin to charge higher premiums or to withdraw from insuring in the locality altogether; property values fall; businesses close; good quality rental accommodation becomes unavailable; remaining homeowners find themselves with mortgage or other debt they cannot meet; services decline, either because of ongoing maintenance problems or because their providers withdraw them; and overall, those remaining become highly vulnerable – in a state of 'property purgatory'" (Expert Working Group).[27]

In contrast, 'managed' relocation is a deliberate and intentional process. It is publicly authorised, planned and coordinated (and potentially at least partly paid for by government). It is anticipatory, long-term and forward-looking. The aim is to reduce climate risk permanently rather than temporarily – or, to quote MFE, "to reduce or eliminate exposure to intolerable risk".[28] It can include 'managed realignment' which is the controlled inundation of areas of land to create natural defences, reduce flood risk and address biodiversity loss.[29]

Aotearoa New Zealand's First National Adaptation Plan defines managed retreat as "the purposeful, co-ordinated movement of people and assets (eg, buildings and infrastructure) away from risks. This may involve the movement of a person, infrastructure (eg, building or road) or community. It can occur in response to a variety of hazards, such as flood, wildfire, or drought" (*Ministry for the Environment*).[30]

Managed relocation will likely entail the movement, not only of people, buildings and infrastructure, but also of cultural and historic sites.[31] It will also need to accommodate indigenous species, enabling them to move in response to climate change and enhancing their habitat.

Managed relocation is often considered to be the last resort due to the high cost, significant level of disruption and political difficulties involved. This should not necessarily be so. Relocating people prior to damage occurring is overall likely to be financially cheaper, less risky, less disruptive and less socially harmful than relocating people following a major damaging event (or when multiple harmful events occur over a short period of time).

Cyclone Gabrielle highlighted the significant consequences to communities of not acting pre-emptively prior to natural hazard events. Not only did 11 people die in circumstances related to the cyclone, but in Napier alone, over 70,000 residents were left without health services, power, road access, wastewater, drinking water, internet and cellphone networks.[32]

If done well, managed relocation can offer many positive outcomes, such as enabling the construction of new, better and more resilient communities – with energy efficient homes and more robust, climate-proof infrastructure. The relocation of rural Māori to more productive and lower risk land and housing, for example, could help improve health and well-being for whānau.

Managed retreat can also create opportunities to benefit the natural environment. For this to happen the welfare of indigenous species needs to be recognised as an integral consideration in planning for human relocation and resettlement. Moving people and structures can create more space for nature, thereby providing significant biodiversity benefits as well as reducing risks. In turn, creating more space for nature can reduce the ongoing risk for people who may remain.

A spotlight on expanding wetland areas, New Jersey, USA

The Blue Acres Programme in New Jersey, USA, which was developed in response to repeated flooding events, offers to buy back properties at risk of flooding. The scheme prioritises groups of properties that are located close to existing wetland areas or that could provide significant flood storage for the remaining community. It requires clusters of homes to be purchased at the same time, rather than individual properties, in order to create interconnected restoration areas.[33]

Wetland area designed into new development at Long Bay, Auckland

2.5 Gaps in current adaptation policy

In Working Paper 2, we delved into weaknesses and gaps in the current legal and policy framework, as it applies to the steps of managed relocation. Our review identified a multitude of relevant pieces of legislation (see Figure 4) which in itself served to highlight the fragmented nature of the current system.

Legislation (in date order)	**Agency**	**Relevance to managed retreat**
Soil Conservation and Rivers Control Act 1941	Regional councils	Construction and maintenance of flood protection works
Land Act 1948	Land Information New Zealand	Acquisition, disposal and management of Crown owned land
Health Act 1956	Territorial authorities Director of Health	Requires properties to have adequate potable water and facilities for the disposal of wastewater Enables buildings to be closed where they are likely to cause injury to health or are unfit for human habitation
Local Government Act 1974	Territorial authorities	Management and stopping of roads
Reserves Act 1977	Territorial authorities Other management entities	Classification and management of reserve land by a range of parties
Public Works Act 1981	Land Information New Zealand Local authorities	Acquisition of land for public works (including compulsory acquisition) and providing compensation
Local Government Official Information and Meetings Act 1987	Territorial authorities	Preparation of Land Information Memoranda for individual properties which can include information on climate risk
Conservation Act 1987	Department of Conservation	Designation and management of conservation land
Resource Management Act 1991	Regional councils Territorial authorities	Management of land, water, air and coastal marine area; planning and consenting for activities including subdivision and urban development
Te Ture Whenua Māori Act 1993	Māori Land Court	Classification, protection and management of Māori land
Climate Change Response Act 2002	Climate Change Commission	Preparation of a national risk assessment and national adaptation plan every 6 years
Local Government Act 2002	Regional councils Territorial authorities	Sets out consultation principles and decision-making requirements. Provides for 10-year long term plans, 30-year infrastructure strategies and a financial strategy
Civil Defence Emergency Management Act 2002	Director of Civil Defence Emergency Management Local Authorities	Provides broad powers to respond to emergencies
Building Act 2004	Territorial authorities	Ensures compliance of buildings with the building code
Urban Development Act 2020	Kāinga Ora	Separate regime for specified development projects including compulsory acquisition of land

Figure 4: List of current legislation relevant to managed relocation

We also found significant gaps in the current statutory framework (see Figure 5) including in the obligation to undertake risk assessments at the sub-national level, in supporting councils to decline development in areas with high natural hazards, in providing a framework for adaptation planning, in providing for the acquisition of land for managed retreat with associated compensation, and in withdrawing services from areas subject to managed retreat. There is also no land categorisation targeted at land restoration post-relocation.

1. Although there is a robust framework for the preparation and communication of a regular national climate risk assessment, by an independent agency, there is not similar rigour at a regional or local level. Under current law, outside the coastal environment, there is no obligation on any agency to regularly collect and make available sub-national climate risk information.[34]

2. The current legal framework is not well configured to prevent urban development in areas subject to high natural hazard risk. Only the Building Act 2004 can be relied on to achieve this, through the refusal of building consents, but only when the safety of people is at stake.

3. Councils can refuse to grant subdivision consent (but not other consents) under the RMA when there is a "significant" risk from natural hazards, but they are not required to do so.

4. It will not usually be possible to downzone land in areas subject to high natural hazard risk, to exclude urban development, unless the council offers to purchase the property at market value and the landowner agrees. This is due to the 'reasonable use' requirement under the RMA.

5. The New Zealand Coastal Policy Statement (NZCPS) provides clear directives on avoiding redevelopment and land use change that would increase the risks of adverse effects from coastal hazards (although there are questions about how effective its implementation has been). There is no similar direction for how councils are to address the risks of natural hazards outside the coastal environment although the proposed National Policy Statement for Natural Hazard Decision-making, if proceeded with, may assist with this.

6. The National Policy Statement on Urban Development appears poorly configured to avoid development in hazardous areas. Although it provides for natural hazards as 'qualifying matters' (grounds on which councils may prevent growth and intensification), the regime effectively discourages councils from taking a strategic long-term approach to addressing cumulative and compounding risks.

7. Although the Climate Change Response Act 2002 requires the preparation of a national adaptation plan, there are no statutory provisions for regional and local adaptation planning. Councils can choose to undertake such planning as part of their broad capabilities under the Local Government Act 2002, but there is no *explicit* provision for implementation including assigning responsibilities and providing funding.

8. No current legislation is well configured for acquiring hazard-exposed land in the context of managed relocation. The Public Works Act 1981 and Urban Development Act 2020 are likely unsuitable. The Land Act 1948 (via the Commissioner of Crown Lands) and the Local Government Act (via local authorities) provide a mechanism for voluntary purchase, but neither provide a suitable framework for compensation.

9. Regional councils may be required to maintain existing flood protection works even if they are not the best long-term response to flood risk.

10. Councils are unable to withdraw all services from areas which are subject to a managed relocation exercise if some residents remain.

11. In the context of an emergency there are strong statutory provisions for moving people away from unsafe homes and buildings. However, these are designed to be short term measures and are unsuitable for managed relocation, especially if it is pre-emptive.

12. There is no specific category of land under the Reserves Act 1977 that is focused on the restoration and rehabilitation of natural ecosystems, and therefore well-configured for land which has been vacated as a result of a managed relocation exercise.

Figure 5: Summary of weaknesses in the current legal and policy framework for managed relocation

The following chapters focus on addressing these weaknesses by developing recommendations for the new Climate Adaptation Act, as well as amendments to other legislation and policy, including the RMA. The recommendations build on the set of options set out in Working Paper 3. They also draw on the Expert Working Group's report which provided 89 recommendations for a proposed system for te hekenga rauora/planned relocation.[35] Our recommendations seek to reflect elements of a Te Tiriti-based adaptation system, which we identified in Working Paper 3, and have summarised in the spotlight below.

A spotlight on the elements of a Te Tiriti-based adaptation system

Drawing from MFE's discussion document,[36] and recommendations by the Māori Affairs Select Committee on adaptation,[37] the following elements could support a Te Tiriti-based adaptation system:

1. Upholding the Crown's Te Tiriti obligations and Māori rights and interests
2. Integrating te ao Māori and mātauranga Māori where it is made available
3. Adequately resourcing iwi, hapū and Māori to participate as they choose
4. Enabling joint, shared or preferably delegated decision-making to Māori, particularly in relation to adaptation strategies impacting Māori land.
5. Fostering positive, collaborative working relationships and enabling robust and deep conversations to be had between Māori communities, the Crown and local government

2.6 Why a Climate Adaptation Act is needed

When considering whether new legislation is needed for climate adaptation, rather than simply amending existing statutes, it is useful to go back to the inception of the proposal for a new Act. This can be found in the report of the Resource Management Review Panel released in June 2020. After considering a range of options for addressing climate adaptation, and managed retreat specifically, the Panel concluded that "discrete legislation is required to specifically address managed retreat where it is required for climate change adaptation or to reduce risks from natural hazards."[38]

The Panel went on to set out the rationale for this conclusion, which included the many complex matters that need to be addressed in managed relocation (funding, land acquisition, compensation, liability and insurance), the need for a consistent approach to be developed at a national level, and the need for land acquisition and compensation to be addressed by both national and local government.[39] In addition, as MFE has subsequently highlighted, "currently there are no dedicated tools or processes to guide how individual households or communities might permanently shift away from areas of intolerable risk". Separate legislation was intended to "provide tools and processes to plan and implement managed retreats".[40]

We agree with these conclusions that specific targeted legislation is required to adequately provide for managed relocation. In the following chapters we first explore what the purpose and principles of such a new Act might be. What are we trying to achieve and in what manner are we trying to achieve it?

Carving of Tihori, ancestor of Ngāti Awa, at Waitangi Treaty Grounds

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3 Purpose and principles

High value homes protected by seawalls at Milford Beach, Auckland

3.1 Legislative purpose

Modern statutes commonly include a purpose clause which is designed to communicate the policy intent and aims of the legislation. As indicated by the Legislation Design and Advisory Committee, purpose clauses can play several roles. These include:

- Communicating the basic purpose of the regime, ie what it is intended to achieve
- Setting the direction of the regime, ie the general direction of travel sought
- Setting the basis for implementing and assessing the performance of the regime, ie so performance can be assessed against the statutory aims; and/or
- Guiding interpretation of the legislation. This is on the basis that provisions of the Act should be interpreted to give effect to the statutory purpose when the meaning is unclear.[1]

In *Aotearoa New Zealand's First National Adaptation Plan,* released in August 2022, the government articulated a range of climate adaptation objectives. These included Objective HBP2 that "new and existing places are planned and managed to minimise risks to communities from climate change". Of particular relevance to managed retreat, the objective's explanatory material refers to the need to "avoid development in places that may be more exposed to climate hazards" and to "relocate people and assets where risks are too high to manage otherwise".[2]

In the consultation document on managed retreat, released in 2022 alongside the then draft national adaptation plan,[3] MFE proposed five objectives for managed retreat legislation alongside six principles (see Figure 6). The objectives primarily focus on the mechanics of the legislation, such as providing clarity on roles, responsibilities, processes and tools. However, they do not specify to what end such responsibilities and tools should be deployed, which is something a legislative purpose statement can provide.

The Expert Working Group did not propose a purpose clause for the new Climate Adaptation Act, but it did specify eight outcomes to be sought from managed relocation, alongside ten principles (see Figure 6). The outcomes have a strong emphasis on social matters alongside referring to the rights and interests of Māori and environmental protection.

MINISTRY FOR THE ENVIRONMENT[4]	EXPERT WORKING GROUP[5]
Objectives for managed retreat legislation	**Outcomes for planned relocation**
1. To set clear roles, responsibilities and processes for managed retreat from areas of intolerable risk 2. To provide stronger tools for councils to modify or extinguish existing uses of land 3. To provide clarity on tools and processes for acquiring land and related compensation 4. To clarify local government liability for decision-making on managed retreat, and the role of the courts 5. To provide clear criteria for when central government will intervene (or not) in a managed retreat process	1. People must be kept physically and psychologically safe 2. People must have access to adequate and affordable places to live 3. People must have the opportunity to build more secure and resilient futures, and to maintain or enhance their well-being 4. Socio-economic inequalities must not be exacerbated and need not be preserved 5. Risks from climate-related and other natural hazards should be reduced 6. The rights and interests of Māori must be respected and given effect 7. Environmental standards must be met and ecological values protected 8. Opportunities for improvement should be realised (eg, in relation to housing, infrastructure, transport and urban form)
Principles for managed retreat legislation	**Principles for planned relocation**
1. Managed retreat processes are efficient, fair, open and transparent 2. Communities are actively engaged in conversations about risk and in determining and implementing options for risk management 3. Social and cultural connections to community and place are maintained as much as possible 4. There is flexibility as to how managed retreat processes play out in different contexts 5. Iwi/Māori are represented in governance and management and have direct input and influence in managed retreat processes, and outcomes for Iwi/Māori are supported 6. Protection of the natural environment and the use of nature-based solutions are prioritised	1. Be informed by the best available evidence and expert advice 2. Reflect important community values and aspirations 3. Take a proactive and precautionary (ie, cautious and risk-averse) approach to the timing and pace of relocation, despite the absence of perfect information 4. Provide certain, timely and predictable outcomes 5. Be adaptable to meet the pace, scale and variable circumstances of relocation 6. Be simple to operate and minimise compliance costs 7. Minimise moral hazard and other perverse incentives 8. Give effect to Te Tiriti and honour the intent of settlements 9. Comply with the New Zealand Bill of Rights Act 1990 where applicable 10. Maintain the sound functioning of markets (eg, in relation to property, construction, insurance and banking)

Figure 6: Objectives, outcomes and principles proposed for managed relocation legislation by MFE and the Expert Working Group

The most detailed regulatory policy that currently exists on managed retreat is contained within the NZCPS. This only applies to the coastal environment (including land subject to coastal influences). Policy 25 (see Figure 7) addresses subdivision, use and development in areas of coastal hazard risk. It requires any increase in the risk of harm from coastal hazards to be avoided, any redevelopment or land use change that would increase the risk of adverse effects from coastal hazards to be avoided, and managed retreat where it would reduce such risks to be encouraged.

Subdivision, use and development in areas of coastal hazard risk

In areas potentially affected by coastal hazards over at least the next 100 years:

a. avoid increasing the risk of social, environmental and economic harm from coastal hazards;

b. avoid redevelopment, or change in land use, that would increase the risk of adverse effects from coastal hazards;

c. encourage redevelopment, or change in land use, where that would reduce the risk of adverse effects from coastal hazards, including managed retreat by relocation or removal of existing structures or their abandonment in extreme circumstances, and designing for relocatability or recoverability from hazard events;

d. encourage the location of infrastructure away from areas of hazard risk where practicable;

e. discourage hard protection structures and promote the use of alternatives to them, including natural defences; and

g. consider the potential effects of tsunami and how to avoid or mitigate them.

Figure 7: Policy 25, New Zealand Coastal Policy Statement 2010

In proposing a purpose statement for the Climate Adaptation Act (see below) we have first sought to articulate the broad overall purpose of the legislation, which is to anticipate and reduce the risk of harm to people and the wider environment through relocating people and structures away from areas subject to high natural hazard risk. We have then set out why the legislation seeks to do this, namely, to avoid and alleviate individual hardship as a result of natural hazards as well as to minimise the long-term societal costs. We have also referred to the importance of supporting the mana of iwi and hapū, so they are empowered to make decisions impacting their own land and places of cultural significance, including marae and urupā. In addition, it is important that climate adaptation measures are designed to support the resilience of indigenous species and habitats to climate change.

Proposed purpose of the Climate Adaptation Act

Purpose of this Act

The purpose of this Act is to reduce the risk of harm to people and the wider environment from natural hazards through:

(a) enabling people and communities to adapt effectively to natural hazard risks; and

(b) facilitating the relocation of people and physical structures away from areas subject to high natural hazard risk; and

(c) discouraging urban development in areas of high natural hazard risk–

and in doing so–

(d) avoiding and alleviating hardship caused by the risk and impacts of natural hazards; and

(e) supporting the mana of iwi and hapū; and

(f) increasing the resilience of indigenous species and habitats to climate change; and

(g) minimising the long-term societal costs of natural hazards.

natural hazard—

(a) means any atmospheric or earth- or water-related occurrence (including flooding, earthquake, tsunami, erosion, volcanic and geothermal activity, landslip, subsidence, sedimentation, wind, drought or fire) the action of which adversely affects or may adversely affect human life, property, or other aspects of the environment; and

(b) includes the effects of climate change on any of those occurrences

***Urban development**– has the meaning given in section 10(1) of the Urban Development Act 2020*

3.2 Legislative principles

Statements of principle can also be included in statutes to guide how powers under the legislation should be exercised.[6] This is particularly pertinent in the case of managed relocation legislation, which will necessarily impact on private property, and where matters of fairness and equity will require careful guidance for the exercise of decision-makers' discretion.

The Resource Management Review Panel recommended that the underlying principles to guide decision-making under managed relocation legislation should include avoidance of 'moral hazard', the 'benefit' and 'subsidiary' principle (balanced against considerations of the ability to pay), fairness and equity including across generations, and the principles of Te Tiriti.[7]

A spotlight on Te Tiri principles and managed relocation

Te Tiriti is a foundational constitutional document in Aotearoa New Zealand's legal system which establishes and guides the ongoing relationship between the Crown and Māori.[8] In seeking to apply Te Tiriti to modern usage, the courts have sought to capture the underlying spirit and intention of the two different versions (English and Māori), in a set of principles, which focus on the underlying mutual obligations and responsibilities of the Treaty partners. Here we focus specifically on the principles of partnership and active protection and how they might be practically applied in a managed relocation context.

Protecting tino rangatiratanga

As the Waitangi Tribunal has stated, "at the heart of the Treaty relationship is partnership between kāwanatanga and tino rangatiratanga".[9] The Tribunal has explained that "rangatiratanga denotes the mana not only to possess what one owns but, and we emphasise this, to manage and control it in accordance with the preferences of the owner".[10] Protecting rangatiratanga in a climate change context would see iwi, hapū and whanau leading, and being supported to undertake, the development and implementation of adaptation strategies for their own land, taonga and communities.

Supporting managed relocation of marae

Marae are central to Māori culture and wellbeing and a key cultural infrastructural node enabling hapū and iwi to connect to place. As already indicated, many marae are or will become susceptible to coastal erosion and/or flooding. Where marae are surrounded by privately owned land Māori communities can struggle to find a safe place to relocate to. This raises the issue of whether the government's duty of active protection under Te Tiriti includes assisting Māori to access private or public land to enable managed relocation.

Retaining connections

Whakapapa is the connection Māori people have with each other, and to the land, which may be impacted if they are required to move. Displacement of communities can mean that access to significant landmarks or mātauranga associated with them is reduced. There may also be negative impacts on the ability of hapū to feed their communities and whānau, as well as to provide for large numbers of people at tangi. Kōrero and wānanga about connection to the whenua and whakapapa, and how that will be maintained during any managed retreat process, will be essential in facilitating understanding, buy-in and participation.

Adequately resourcing iwi and hapū

Appropriately resourcing iwi and hapū to engage with local and central government speaks to the partnership intended by Te Tiriti. Engagement could happen at a iwi or hapū level, where the kōrero can then be filtered down to the hapū and whanau respectively. Some iwi and hapū, that are more established in their post-settlement phase, may have access to resources such as a specialised environmental manager and have climate adaptation management plans and strategies in place. Groups that lack such resources might need to be supported by the Crown.

As can be seen in Figure 6, MFE proposed six principles for managed retreat legislation which variously address processes (to be efficient, fair, open, transparent and flexible), outcomes (maintaining social and community connections), iwi/Māori (to be represented in governance and management) and the natural environment (which is to be protected).

The Expert Working Group proposed ten principles (see Figure 6) which have a wider remit, including broad principles of precaution, adaptability and use of best available information; providing certainty and maintaining the sound functioning of markets; minimising moral hazard and compliance costs; reflecting community values and aspirations; and giving effect to Te Tiriti and complying with human rights legislation. Notably there is no mention of the natural environment under the recommended principles although it does feature under the proposed outcomes.

In Working Paper 1, we reviewed 22 principles which could be applied to managed retreat policy (and which are summarised in Figure 8), including both substantive and procedural principles.

Principal	Description
Transformative Principle	Social power and constraints should be transformed to deliver improved outcomes for people and nature
Solidarity Principle	Members of a group should support each other to fulfil mutual rights and obligations
Remedial Responsibility Principle	People who need help should be given assistance
Fair Opportunity Principle	People should not be penalised due to circumstances beyond their control
Least Advantaged Principle	It is important to protect the interests of those who are the least advantaged or have the greatest needs
Needs Satisfaction Principle	It is important to meet basic human needs
Intergenerational Equity Principle	Those currently alive have a moral obligation to protect the interests of future generations
Compensatory Justice Principle	Unjustified loss, damage or disruption should be compensated for
Restorative Justice Principle	It is important to repair the relationship between those who have been wronged and those who caused the harm
Comparative Justice Principle	Alike cases should be treated alike
Recognition Justice Principle	It is important to address the underlying causes of inequities
Tino Rangatiratanga Principle	Māori should retain self-autonomy in decision-making over their land and resources
Ecological Justice Principle	Nature should be included in the human community of justice
Conservation Principle	There is a need to protect ecological integrity and the ecological health of natural systems
Ability to Pay Principle	Those who are wealthier have a greater duty to pay than those who are poorer
Beneficiary Pays Principle	Those who receive private benefits from public policy should provide compensation for them
Polluter-pays Principle	Those responsible for causing harm should pay to remedy it
Subsidiarity Principle	Decisions should be made closest to those most affected by them
Procedural Justice Principle	People should have the right to participate in decisions that affect them
Voluntarism Principle	Voluntary action is to be preferred over compulsion
Precautionary Principle	Lack of scientific certainty should not be used as a reason to avoid taking action
Avoid Maladaption Principle	It is important to avoid unintended negative consequences from decisions

Figure 8: Principles which could be applied to managed relocation policy

When codifying decision-making principles in legislation, the Legislation Design and Advisory Committee advises that such clauses should be used to support and enable decision-making in line with the policy of the legislation, but should not be used to create stand-alone enforceable substantive rights or duties. In addition, it is important to "ensure that there are not too many principles to be taken into account, as it will result in unworkable and complex decision-making".[11] For these reasons, our proposed set of decision-making principles shown below seeks to distil a small number of core principles from the array proposed.

Proposed drafting of decision-making principles

Decision-making principles

Every person who performs any function or exercises any power under this Act must–

(a) give effect to the principles of Te Tiriti o Waitangi; and

(b) use the best available information; and

(c) adopt efficient, fair, open and transparent processes; and

(d) ensure fairness and equity in how the exercise of that function or power impacts individuals and communities, including across generations; and

(e) support communities to effectively shape decisions that affect their futures; and

(f) work with iwi and hapū to establish structures that enable iwi and hapū to effectively input into decision-making processes; and

(g) ensure social and cultural connections to community and place are maintained as much as possible; and

(h) prioritise the use of nature-based solutions and protection of the natural environment.

Te Whare Rūnanga, Waitangi Treaty Grounds

Endnotes

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4 Assessment of natural hazard risk

Flooded contractor's yard, Hawkes Bay *(Waka Kotahi)*

The core foundation of managed relocation policy is the identification, assessment and communication of risk. As we stated in Working Paper 3:

> [This] is the foundation of any effective managed relocation programme. Hazards and exposure and vulnerability to them (ie the components of risk) need to be robustly identified and communicated to relevant stakeholders and the public, in a clear and accessible way. Ideally this should occur ahead of a hazard event occurring...
>
> Although there is a robust legal framework for the preparation, assessment and communication of regular *national* climate risk assessments, by an independent agency (the Climate Change Commission), there is no similar requirement at a regional or local level. This is a significant gap in the existing legal framework.[1]

"Without accurate information about the total size of risks people are exposed to, they are less likely to invest in resilience activities" (*Roshen Kulwant and Michael Bealing, NZIER*).[2]

Climate change risk assessment has far wider applicability than just managed relocation. It informs a broad range of climate and natural hazard adaptation decisions and actions including under the:

- RMA (land use overlays, rules and resource consenting)
- Building Act (building consenting)
- Local Government Act (council infrastructure planning)
- Local Government Official Information and Meetings Act 1987 (LGOIMA) (property information provided on Land Information Memorandum)
- Climate Change Response Act (national risk assessments and adaptation plans); and
- Civil Defence Emergency Management Act 2002 (emergency management plans).

Robust risk assessments will also enable iwi, hapū, communities and businesses to make informed decisions on how to adapt to climate risks and can inform the prioritisation and investment of government funds in climate adaptation measures. Risk assessments that incorporate mātauranga Māori will help enable iwi and hapū to exercise tino rangitiratanga over how to adapt.

The Expert Working Group recommended that there be a legislative requirement to undertake regional risk assessments. We agree. However, a key issue to then be determined is which statute should house a requirement to undertake such assessments.

Given the applicability of regional risk assessments over a wide range of statutory functions we suggest that the Climate Change Response Act would be the most appropriate home for such a requirement. It would fit within the purpose of that Act which under section 3(1) is to "(aa) provide a framework by which New Zealand can develop and implement clear and stable climate change policies that– (ii) allow New Zealand to prepare for, and adapt to, the effects of climate change."

This would also provide a clear linkage between regional and national climate change risk assessments, whereby the six-yearly national risk assessment prepared under the Climate Change Response Act could draw on the more detailed regional assessments. The regional assessments could be undertaken and updated on a regular rota over a (say) six-year period (ie preparing around two a year) to match the timing of the national assessments. This would be similar to how domain reports are prepared under the Environmental Reporting Act 2015: sequentially, every six months, to feed into the three-yearly synthesis reports. Regional assessments for some of the smaller unitary authorities (ie Marlborough, Nelson and Tasman) could be undertaken as one exercise.

The Expert Working Group recommended that the region-wide risk assessments be undertaken by an expert panel established for each region. These would include experts in hazard and vulnerability assessments; engineering risk assessments; mātauranga Māori and tikanga; and environmental, financial and social risks from natural hazard and climate change impacts. This is similar to the approach taken for the national climate change risk assessment, which was undertaken by a diverse multi-disciplinary team.[3]

Under the Expert Working Group's recommendations, the expert panel would be appointed and overseen by a committee of the regional council, territorial authorities, iwi, hapū and Māori representatives in each region and with an optional Crown representative. National direction would be issued under the RMA on the methods and metrics for risk assessment. Each assessment would then be independently peer reviewed by the Climate Change Commission.[4]

We suggest that this approach which comprises four elements (MFE national direction, regional committee, regional expert panel and Climate Change Commission audit) could be simplified to just two elements; regional expert panels which are overseen by the Climate Change Commission. The Climate Change Commission could develop its own guidance for how regional risk assessments are to be undertaken which could evolve over time. This would simplify the process, result in cost savings, and provide for political independence, national consistency and technical robustness. It would also take the burden of funding the assessments off local authorities which could then focus on planning with their communities on how to respond to the risks.

> "New Zealand needs better climate risk data, and a better understanding of what hazard is. That should be a common data set that is made available, to inform decisions" (*Sir Brian Roche, Chair of the Cyclone Gabrielle Recovery Taskforce*).[5]

The regional panels could include relevant technical staff from the regional council and territorial authorities, and tikanga experts from local iwi/hapū, alongside other multi-disciplinary experts. It will also be important to have communication and engagement expertise on the panels to help ensure the risks assessments are relevant to, and understood by, communities. Having a centralised coordinating body (the Climate Change Commission) would help support the development of a broad body of expertise in risk assessment nationwide with cross-fertilisation of skills between regions.

A kaupapa Māori risk assessment framework should be incorporated into regional risk assessments which, as applied by Awatere et al (2021) to the national risk assessment,[6] uses risk scores for four domains of interest: he kura taiao (living treasures), whakatipu rawa (Māori enterprise), he oranga tāngata (healthy people), and ahurea Māori, tikanga Māori (Māori culture and practices).

A spotlight on mātauranga Māori and climate adaptation

Mātauranga Māori is an indigenous knowledge system and way in which the Māori world is understood. Rangi Mātāmua believes mātauranga Māori and Western science can work symbiotically, especially when it comes to responding to our changing climate, as "our knowledge systems are not separated from our cultural practices, from our actual everyday practices, and even from our spirituality".[7] Understanding environmental change informed the way in which life was lived by Māori. The design of a climate adaptation framework will need to carefully consider mātauranga Māori, tikanga, te reo Māori and te ao Māori concepts and aspirations in a way that is led and explored by Māori.

As with national climate change risk assessments, there should be a statutory requirement to make regional risk assessments publicly

available.[8] They should also be provided to affected councils for inclusion in planning documents and property specific material.

Usefully, new provisions in the Local Government Official Information and Meetings Amendment Act 2023 set out more clearly the natural hazard information that must be included on land information memoranda. This includes cumulative and combined effects of natural hazards. These provisions come into effect, at the latest, on 1 July 2025. The information must be included where it "is known to the territorial authority"[9] and so would include any information from regional risk assessments provided to councils. It will therefore be important that the output of any regional risk assessments is presented in such a way that lay people can interpret the information.

Slip-damaged house at Piha, Auckland

Once the regional risk assessments have been completed, legislative links could be created with other decision-making processes, so that:

- Decision-makers under the RMA are required to have particular regard to the regional risk assessments in developing policies and plans and resource consenting; and
- Decision-makers under the Building Act are required to have particular regard to the regional risk assessments in building consenting where relevant (noting that regional risk assessments may not have the level of granularity that would be applicable at the property level); and
- Local authorities are required to have particular regard to them when developing long-term plans and infrastructure strategies under the Local Government Act.

Recommendations on regional climate change risk assessments

Amend the Climate Change Response Act to provide for mandatory regional climate change risk assessments undertaken by regional expert panels (with a wide range of relevant skills, including mātauranga Māori) appointed and overseen by the Climate Change Commission.

Require regional risk assessments to be made publicly available, to be provided to local authorities, and for decision-makers under the RMA, Building Act and Local Government Act to have particular regard to them where relevant.

The Expert Working Group recommended that local risk assessments be undertaken as part of local adaptation planning. We concur with this and explore arrangements for such planning in Section 7 below.

Endnotes

1 Peart R, B D Tombs and K Marshall, 2023, *Options and models for managed relocation policy: Working paper 3*, Environmental Defence Society, Auckland, 5

2 Kulwant R and M Bealing, 2024, 'Incentivising resilience to adverse climate change events', *NZIER Insight*, 109-2024, 1

3 https://environment.govt.nz/what-government-is-doing/areas-of-work/climate-change/adapting-to-climate-change/first-national-climate-change-risk-assessment-for-new-zealand/

4 Expert Working Group on Managed Retreat, 2023, *Report of the Expert Working Group on Managed Retreat: A proposed system for te hekenga rauora/planned relocation,* Expert Working Group on Managed Retreat, Wellington, 103-104 and 119-120

5 Sir Brian Roche, Chair of the Cyclone Gabrielle Recovery Taskforce, as reported in Milne J, 2024, 'Treasury asks for economic plan to pay for climate crisis', *Newsroom*, 19 February

6 Awatere S, et al, 2021, *He huringa* āhuarangi, *he huringa ao: A changing climate, a changing world*, Manaaki Whenua Landcare Research, Lincoln

7 Harris K, 2023, 'How mātauranga Māori is being rolled out in schools, Rangi Mātāmua explains the knowledge system', *New Zealand Herald*, 7 March

8 See Section 5ZQ(1)(b), Climate Change Response Act 2002

9 Section 44A(2)(a)(i), Local Government Official Information and Meetings Act 1987

5 Development control in high-risk areas

Building on the coastal erosion front line at Matarangi Beach

"The most important thing we can do is ensure people are not being placed in harm's way and do not suffer the loss and disruption caused by a flood event. Avoiding the impact on lives and people's wellbeing must be the priority" (*Amanda Whiting, CEO, IAG New Zealand*).[1]

"The system will issue consent unless there are good reasons not to. Consent officers will say yes if they don't have sufficient data to say no, or if they say no, they would be challenged in court" (*anonymous interviewee*).[4]

Cyclone Gabrielle and other recent severe weather events highlighted the problem that councils are still consenting new development in areas subject to high natural hazard risks. In particular, our spotlight on South Dunedin (in Working Paper 3) highlighted the systemic tension between one arm of council consenting intensified urban development in an area subject to significant natural hazards (albeit with requirements for raised floor levels and relocatable buildings) while another arm was exploring the potential for managed relocation in the same area.[2] As MFE recently stated:

> Local authorities … have reported the need for more defined and stringent provisions that will enable them to better consider developments in high-risk areas, and decline resource consents, if appropriate. Local authorities have shared recent examples where they were unable to decline planning consents for properties in areas of high flood risk…[3]

Consenting new development in areas subject to high natural hazard risks, where mitigation methods (such as lifting floor heights) are not a long term solution, does not constitute sound public policy. It increases the number and value of properties and infrastructure (and associated people and communities) being put in harm's way and potentially needing costly relocation efforts or protection works in the future.

When determining how best to rectify this problem it is useful to reprise where the relevant gaps in the legislative framework currently lie. We explored this in Working Paper 2 and have summarised the gaps in Figure 9.

1. Strong policy exists in the NZCPS to avoid redevelopment or land use change that would increase the risks of coastal hazards, but this only applies to 'coastal' hazards and to land in the 'coastal environment'. There is no general national RMA policy on natural hazard risks (although there is now a proposal to fill part of this gap as discussed below).

2. Strong policy exists requiring councils to provide for more intensive development in urban areas, under the National Policy Statement for Urban Development, without sufficient guardrails to ensure intensification does not take place in high hazard areas (as illustrated in our spotlight on implementation of the policy in Hutt City in Working Paper 2).[5]

3. A provision in the RMA enables councils to refuse to grant subdivision consent where there is a significant risk from natural hazards, but there is no requirement that such consent be refused.

4. The protection of existing land use rights under the RMA means that changing rules under a district plan cannot remove rights to continue to use a property for residential use in a high hazard area. Although this can be done under regional rules for the purpose of avoidance or mitigation of natural hazards, regional councils can be reluctant to act, as was the case with Matatā.[6]

5. Property owners can seek to overturn proposed plan provisions under the RMA where they would render their land "incapable of reasonable use" and it is unclear whether downzoning land to exclude residential use because of high natural hazard risk would be caught by these provisions.

6. Provisions under the Building Act enable building consents to be declined in areas subject to natural hazards, but only where the building does not comply with the Building Code and would reduce life safety.[7] The timeframe for consideration is usually 50 years (less than the 100 years under the NZCPS) being the assumed life of the building.

Figure 9: Gaps in the legislative framework for preventing development in high-risk areas

We discuss potential ways of addressing these weaknesses in the sections below. They include strengthening national direction, moderating existing use rights and strengthening reporting requirements for natural hazard risk.

5.1 Strengthening national direction

To help address the issue of consents being granted for development in high hazard areas, MFE released a *Proposed National Policy Statement for Natural Hazard Decision-making* in September 2023. This was presented as an interim measure until more comprehensive national direction could be developed.[8] In broad terms it would require planning decision-makers to determine the level of natural hazard risk as high, moderate or low and to ensure that new development is avoided in areas of high hazard risk unless some specific criteria were met. Interestingly, the only mention of climate change in the document is as part of the definition of "natural hazard".[9]

EDS made comprehensive submissions on the proposed national policy statement.[10] The new government has yet to signal whether the proposed document will be progressed.

One key weakness in the document is that there is no time frame specified for the assessment of hazard risk (which should be at least 100 years) or mention of compounding or cascading risks.

In terms of coverage, a notable gap is that the policy would not apply to territorial authorities preparing 'intensification planning instruments' which are designed to give effect to the National Policy Statement for Urban Development. As we stated in Working Paper 3:

> Ostensibly this is to "minimise disruption and complexity". But this means that the risks of natural hazards will receive less weight in the very areas where they may be most important – where more people are being encouraged to live and work (with associated investment in infrastructure and property). Although Clause 1.5 (below) might reduce disruption and complexity for current council planning processes, it seems likely to considerably exacerbate them in the future, when properties and people need to be protected and/or moved.

> **NPS-UD 1.5 Application to intensification planning instruments**
>
> (1) In order to minimise disruption and complexity for local authorities, nothing in this National Policy Statement applies to a specified territorial authority (as defined in section 2 of the Act) when it is preparing an intensification planning instrument under section 80F of the Act.

Another significant gap in the MFE proposals is the lack of national environmental standards to support the implementation of the national policy statement. Without such a standard, implementation through actual binding regulation would be reliant on changes being made to numerous plans around the country, with consequent delays of potentially several years. During the interregnum, resource consent decisions would only

need to 'have regard to' the policy statement, and do not need to give effect to it.[11] At the same time, consenting decisions have to have regard to other, potentially conflicting instruments, such as the National Policy Statement on Urban Development.

For this reason, we recommend that national environmental standards be promulgated alongside a strengthened national policy statement, to provide for immediate implementation. This could state, along with supportive provisions, that a consent authority shall not grant a subdivision or land use consent for a new hazard-sensitive development if it considers there is a high risk to that development from natural hazards. It could refer to the definition of "new hazard-sensitive development" in the national policy statement.

It is also important that the provisions of the National Policy Statement for Urban Development (which direct councils to promote more intensive development in urban areas) do not trump the NZCPS and a new National Policy Statement for Natural Hazards Decision-making, thereby enabling intensified urban development in high hazard zones. For this reason, we recommend that:

Slips in front of coastal houses at Stanley Point, Auckland

- The Proposed National Policy Statement for Natural Hazards Decision-making be amended to remove the carve out in clause 1.5 for the preparation of intensification planning instruments under Section 80F of the RMA.

- The National Policy Statement for Urban Development be amended to include provisions making it clear that, in the event of conflict, the NZCPS and National Policy Statement for Natural Hazards Decision-making prevail.

Recommendations on national policy for natural hazard consenting

Strengthen and promulgate the National Policy Statement for Natural Hazard Decision-making.

In particular, delete clause 1.5 of the proposed National Policy Statement for Natural Hazard Decision-making which provides that it does not apply to the preparation of intensification planning instruments under the RMA.

At the same time promulgate National Environmental Standards for Natural Hazard Consenting which should state

(1) A consent authority shall not grant a subdivision consent or a land use consent for a new hazard-sensitive development if it considers there is a high risk to that development from natural hazards within the next 100 years.

***new hazard-sensitive development** has the meaning given by the National Policy Statement on Natural Hazard Decision-making.*

Add new provisions to the National Policy Statement for Urban Development after clause 1.3 (a new clause 1.3A) as follows:

(1) The provisions of the New Zealand Coastal Policy Statement prevail over the provisions of this National Policy Statement if there is a conflict between them.

(2) The provisions of the National Policy Statement on Natural Hazard Decision-making prevail over the provisions of this National Policy Statement if there is a conflict between them.

5.2 Moderating existing use rights

When it comes to existing developments, the current high level of protection for existing use rights under the RMA potentially creates a barrier to managed relocation.[12] We highlighted the challenges of the current system in Working Paper 2 in our Matatā spotlight.[13] In that case, despite the high risk to people and properties on the fanhead of the Awatarariki Stream, the district council was unable to use rules in its district plan to remove existing residential use rights for the area. Although the regional council could potentially do so in its regional plan, it declined to take action. This necessitated the district council lodging an application for a private plan change to the regional plan.

Although the plan change was upheld at the regional council level the affected landowners appealed to the Environment Court. One of the issues raised on appeal was the application of section 85 of the RMA and whether the plan provisions could be overturned due to rendering an interest in the land "incapable of reasonable use". In the end the matter was settled by consent, and all the landowners agreed to be bought out, leaving the application of section 85 to a managed relocation situation untested in that case.

In 2019, Iorns and Watts reviewed case law on the application of section 85 and found that it had not been successfully used to challenge the validity of zoning restrictions on residential development in a hazardous coastal area. However, both cases where an unsuccessful challenge was lodged related to the imposition of a hazard line along the coast rather than a managed retreat exercise. Section 85 was amended in 2017 to enable the Court to order that the local authority acquire the affected land (as opposed to overturning the plan provision) but only where the local authority agrees it is the "appropriate" option and the landowner agrees to the purchase. As Iorns and Watts concluded:[14]

> The expanded section 85 now provides the Environment Court with the ability to order compensation for land which could be used in removing residential uses in coastal hazard areas, for example. However, this is only upon individual Environment Court decisions and upon agreement of both the relevant territorial authority and landowner; it does not meet the Boston and Lawrence suggestions for a national system of managed retreat and compensation.

In order to help address the above issues, the Natural and Built Environment Act contained two key changes to the provisions in the RMA:

- District plans (in addition to regional plans) were enabled to override existing use rights to address natural hazard risks and/or adapt to climate change.[15]

- The equivalent of section 85 was expanded to provide that if an offer to purchase the affected land was made by the local authority and the owner declined it, the plan provision rendering land incapable of reasonable use would prevail.[16] This means that the landowner could not stymie the new zoning but was eligible to receive full compensation (as provided for under the Public Works Act) if it went ahead.

Now that the Natural and Built Environment Act has been repealed, these provisions need to be brought into the RMA as shown below.

Recommendations on existing use rights in hazard areas

Include in Section 10 (Certain existing uses in relation to land protected) of the RMA:

(3A) Despite subsection (1), an existing use of land must comply with a plan rule that relates to the following, as far as they are relevant, but only if the plan expressly provides that this subsection applies:

(a) the avoidance, reduction, or mitigation of the risks associated with natural hazards:

(b) adaptation to climate change.

Insert a new section (3E) into section 85 which states:

(3E) If an offer to acquire the relevant estate or interest in the land or part of it—

(a) is accepted, the local authority is responsible for implementing the acquisition under the Public Works Act 1981, including meeting the costs of the acquisition:

(b) is not accepted, the provision in the plan remains in force unaffected or, if not already in force, comes into force without modification.

5.3 Reporting on natural hazard risk

Another mechanism which could be used to help reduce the amount of consenting in high hazard areas would be to require territorial authorities to keep a public record of the number, type and value of buildings at risk. The use of several metrics is important as the value of buildings may by impacted by climate risks in the future. Collectively, this information would enable the public to be apprised of how the council's actions are impacting natural hazard risk and could act as a check and balance on council performance. It could be achieved by making amendments to section 35 as shown below.

Recommendations on council duties to monitor and record natural hazards

Amend section 35 of the RMA as follows:

35 Duty to gather information, monitor, and keep records

(5) The information to be kept by a local authority under subsection (3) shall include—

...

(j) records of natural hazards and the number, type and total value of buildings located in areas subject to high natural hazard risk ~~to the extent that the local authority considers appropriate for the effective discharge of its functions~~; and

Slips on coastal cliffs at Green Bay, Auckland

5.4 Local authority liability

There is some uncertainty as to the extent to which a council might be liable for negligently consenting development in a hazardous area. In Working Paper 2 we canvassed the line of cases where councils had been held liable for damages caused by failures in their duty of care in authorising and inspecting buildings under the Building Act, including the more recent leaky building cases. However, Iorns and Watts (2019) have expressed doubt as to whether similar liability would apply to decisions made under the RMA because the "Courts have evidenced a strong general reluctance to impose a duty of care upon public authorities when exercising quasi-legislative or quasi-judicial functions".[17]

Despite the current "very low" likelihood of local authorities facing successful claims in negligence under the RMA, Irons and Watts note that this situation could change in the future as negligence law is developed by judges deciding individual cases. Also, the mere possibility of liability can act as a disincentive for councils to take action on climate adaptation. For these reasons they conclude that:[18]

> the creation of a legislative liability shield could reduce some of this unfounded concern and improve the uptake and use of climate adaptation measures in Aotearoa New Zealand.

Although not directly related to potential negligence claims against councils, a recent Supreme Court decision further highlights the potential for liability in common law to expand. In that case, Smith, an elder of Ngāpuhi and Ngāti Kahu, lodged three causes of action in tort (one of which was negligence) on the basis that the respondents:[19]

> have contributed materially to the climate crises and have damaged, and will continue to damage, his whenua and moana, including places of customary, cultural, historical, nutritional and spiritual significance to him and his whanau.

The respondents are not public entities, but rather companies that are involved in either emitting greenhouses gases or supplying products which release such gases when burned. They applied to strike out the proceedings on the basis that the statement of claim raised no reasonably arguable cause of action. The Court of Appeal agreed but the Supreme Court overturned the lower court's decision, reinstating the statement of claim. The merits of the arguments have yet to be determined but may well expand the law applying to tort (including negligence).

Parliament has sought to limit liability in some cases. Although not going so far as to remove liability entirely under the Building Act, in the context of council consenting of leaky buildings, Parliament did amend the Act in 2011 to place a ten year limitation on the bringing of civil proceedings relating to building work.[20] In addition, section 44D of the Local Government Official Information and Meetings Amendment Act provides protection for councils when providing hazard information in good faith (see below). This is presumably designed to remove the disincentive for councils to provide the information in the first place, where there is a risk it will subsequently prove to be wrong. This is a positive move.

44D Territorial authority and regional council protected against certain actions when providing information in good faith

A territorial authority or regional council is not liable in civil or criminal proceedings for making available in good faith,—

(a) in the case of a territorial authority, information in a land information memorandum under section 44A(2)(a); or

(b) in the case of a regional council, information to a territorial authority under section 44C.

However, legislating away the prospect of council liability (however small) for consenting development in high hazard zones may remove an important incentive for councils to act prudently and take a precautionary approach. A compromise could be to provide a shield to liability when certain requirements have been met, such as obtaining scientifically reliable information on natural hazards affecting the property, communicating that information to the applicant and affected parties, and taking credible measures designed to ensure that any natural hazard risk is mitigated to safe levels.

Recommendations on council liability

We recommend that a legislative liability shield be provided to councils when consenting development in areas affected by natural hazards, but only when specified criteria are met including obtaining scientifically robust information, communicating that information to affected parties and putting in place credible measures to manage natural hazard risk.

Endnotes

1 Amanda Whiting, CEO, IAG New Zealand, quoted in IAG, 2023, 'IAG seeks three step plan for natural hazard prone New Zealand homes – commits to being part of the solution', media release, 18 August

2 Peart R, B D Tombs and K Marshall, 2023, *Options and models for managed relocation policy: Working paper 3*, Environmental Defence Society, Auckland, 16

3 Ministry for the Environment, 2023, *Proposed National Policy Statement for Natural Hazard Decision-making: Discussion document*, Ministry for the Environment, Wellington, 9

4 Anonymous interviewee

5 Peart R and B D Tombs, 2023, *Current legislative and policy framework for managed relocation*: *Working paper 2*, Environmental Defence Society, Auckland, 32

6 See Matatā spotlight, Peart R and B D Tombs, 2023, *Current legislative and policy framework for managed relocation: Working paper 2*, Environmental Defence Society, Auckland, 45-46

7 See spotlight on the Matatā building consent determinations, Peart R and B D Tombs, 2023, *Current legislative and policy framework for managed relocation: Working paper 2*, Environmental Defence Society, Auckland, 27-28

8 Ministry for the Environment, 2023, *Proposed National Policy Statement for Natural Hazard Decision-making: Discussion document*, Ministry for the Environment, Wellington, 6

9 See para 1.4

10 These can be found at https://eds.org.nz/wp-content/uploads/2023/11/EDS-Submission-NPS-NH-Final.pdf. We are supportive of the intent behind the proposal, but consider the policy needs to be strengthened in a number of important ways, which are set out in the submission.

11 Although where a national policy statement has very clear and directive provisions (which is not the case here) they will have more weight in resource consenting decisions, see *R J Davidson Family Trust v Marlborough District Council* [2018] NZCA 316, [71]

12 These barriers may increase if the government enacts new resource management legislation premised on "the enjoyment of property rights as a guiding principle" as set out in the coalition agreement between the New Zealand National Party and ACT New Zealand

13 Peart R and B D Tombs, 2023, *Current legislative and policy framework for managed relocation*: *Working paper 2*, Environmental Defence Society, Auckland, 45

14 Irons C and J Watts, 2019, *Adaptation to sea-level rise: Local government liability issues*, Deep South National Science Challenge, Wellington, 77

15 Section 30(2), Natural and Built Environment Act 2023 (now repealed)

16 Section 208(5)(b), Natural and Built Environment Act 2023 (now repealed)

17 Irons C and J Watts, 2019, *Adaptation to sea-level rise: Local government liability issues*, Deep South National Science Challenge, Wellington, 221

18 Irons C and J Watts, 2019, *Adaptation to sea-level rise: Local government liability issues*, Deep South National Science Challenge, Wellington, 226

19 *Smith* v *Fonterra Co-operative Group Ltd and Ors* [2024] NZSC 5, at [3]

20 Section 393(2), Building Act 2004

6 Local adaptation planning

Cooks Beach, Coromandel Peninsula which was the focus of a coastal adaptation plan

"Although highly disruptive, it is important to discuss options such as relocation and managed retreat with communities in high-risk areas such as our coastal areas who have been facing repeated damages from weather events. It will become unsustainable to rely on infrastructure alone to minimise losses as hazard events continue to exacerbate in the future. Honest and open discussions about past, present and projected risks to these areas need to be had with communities in order to make collaborative decisions on ways forward" (*Dr Sandeeka Mannakkara*).[1]

Local adaptation planning is an important precursor to managed relocation, particularly relocation exercises undertaken prior to risk thresholds being reached or a natural hazard event occurring. Such a planning process enables iwi/hapū/whanau and the local community to understand more fully the natural hazard risks they face over time and to develop measured responses. It is also enables consideration of the merits of a broad range of available adaptation options, including defensive ones (eg building seawalls) and adaptive measures (eg raising floor heights), in addition to managed retreat. As we observed in Working Paper 3:

> A key component of a managed retreat process is adaptation planning which enables a community to design a response to growing natural hazard and climate change risks. A planning approach increasingly used in contexts of uncertainty and risk is Dynamic Adaptive Pathways Planning (DAPP) although other approaches can also be used. The application of adaptation planning by councils has been patchy and there is currently no statutory provision for regional and/or local adaptation planning in Aotearoa New Zealand.[2]

We consider there is a need to provide for local adaptation planning in the Climate Adaptation Act and examine what should be included in the new legislation in the sections below.

A house located in a part of Kawakawa Bay which has previously flooded has been raised onto higher foundations as an adaptation measure

6.1 Framework for adaptation planning

In Working Paper 3 we identified four different approaches to an adaptation planning framework, with some pros and cons for each option. We have reproduced these in Figure 10. They range from largely the status quo (where the framework is non-statutory) to a detailed framework under the Climate Adaptation Act.

Option	Pros	Cons
1. Non-statutory framework	Flexible and can be applied in different ways to different situations	Can be ignored leading to varying approaches and quality around the country
2. Guidance with a statutory 'peg' under a national policy statement (RMA)	Still retains some flexibility and can be readily updated as new information becomes available	Lacks direct statutory status and could still result in varying approaches around the country
3. Broad framework under Local Government Act or Climate Adaptation Act	Still allows flexibility while ensuring minimum statutory requirements are met (eg for process and content)	Would result in varying approaches around the country
4. Detailed framework under the Climate Adaptation Act	Ensures consistency and quality. Enables the plans to have more statutory clout.	It would need to be carefully designed to still enable some flexibility at the local level as one size may not fit all

Figure 10: Options for an adaptation planning framework

The Expert Working Group has recommended an approach along the lines of Option 4, where local adaptation plans would go through a formal statutory process including pre-consultation, notification of a draft, written submissions, hearing by an independent panel, and final decision by a specially constituted adaptation committee (of a similar constitution to the Expert Working Group's proposed regional risk assessment committees described above). Merits appeals would be available where the adaptation committee did not adopt the recommendations of the independent panel.

"Adaptation designations" (similar in concept to regular designations under the RMA but with important modifications) would then flow from the finalised plan, which would authorise construction of infrastructure and make any required changes to land use rules without the need for additional scrutiny under the RMA. It would replace district consents and (unlike current designations) regional consents. National direction would be promulgated on all aspects of the planning process. The government would need to approve any planned relocation elements of the local adaptation plan.[3]

This is a comprehensive approach and would establish a fully-fledged planning regime with 'teeth'. To a large extent it mirrors the streamlined planning process applied to the development of the Auckland unitary plan and provided for in the standard planning track of the Natural and Built Environment Act (now repealed). Although providing a robust process, with checks and balances, there are downsides to this approach. Undertaking a formal hearings and appeals process would likely incur substantial costs (mainly borne by councils) and could well favour those with the deepest pockets (ie property owners keen to protect their assets), although we note the recommended use of community panels to help moderate this. It could also lock in maladaptive approaches if planning occurs well ahead of community appetite for change.

In particular, as we noted in Working Paper 3, the Expert Working Group proposed that implementation of local adaptation plans, including building protective structures such as seawalls, would not necessarily need to comply with the environmental protections under the RMA. This is on the basis that the proposals would have already been subject to a rigorous planning process under the Climate Adaptation Act (which is not proposed to include environmental bottom lines) and should therefore not be relitigated.[4] This raises the prospect of protection works, which have not gone through a proper environmental assessment, proceeding. This is of considerable concern given the significant, and potentially irreversible, adverse environmental effects that can flow from them.

We note that the current preferred response by communities to natural hazard risks has generally been to protect property rather than relocate, unless protection proves to be technically unfeasible. We saw this play out at Matatā where houses were permitted to be rebuilt in the high hazard zone in the anticipation of engineering works to ameliorate the risks;[5] and in Westport where managed retreat was only notionally considered before a decision was made to proceed with the construction of extensive flood protection works.[6] We also note the highly litigious approach in Kāpiti where even noting coastal erosion risk on property-specific land information memorandum has been vigorously opposed.[7]

Our in-depth case study at Maraetai further highlighted the general resistance of the community to the concept of relocation where we stated:[8]

> The predominant view was that private property should be protected and the existing, but damaged, sea wall along Maraetai beach fortified. Managed retreat, as a solution, was opposed because it was perceived as unnecessary and extreme.

Embarking upon formal adaptation planning processes too early, when so much is at stake, could well serve to solidify opposition to managed retreat, even when it is the best long-term option. Views are likely to soften over time (ie decades) as more natural hazard events occur and communities become more familiar with the concepts of and necessity for adaptation and relocation. As we noted in our spotlight on the French Atlantic Coast in Working Paper 3, undertaking managed relocation pilots can help with this process in a 'learning by doing' approach. In respect of the French pilot projects we noted:[9]

> Overall, the pilots reinforced the legitimacy, credibility and practicality of undertaking managed retreat on the ground. In particular, they enabled "collective learning" and the "gradual acceptance of relocation". They also helped create a community of researchers and managers with new knowledge on relocation and enhanced the "political legitimization and credibility of this measure".

Piloting is also being undertaken in the USA for the relocation of Alaskan Native villages (see spotlight in section 6.7).

In Working Papers 2 and 3 we described a range of adaptation planning processes undertaken by councils (including in Hawkes Bay, Lyttelton, Coromandel Peninsula, Westport and South Dunedin) which have all adopted slightly different approaches. We also noted the imperative to consider the specific needs of Māori communities, and enable them to lead the development of their own adaptation strategies,[10] where the process would be tailored to local tikanga. This sentiment was reiterated in the Expert Working Group's fifth recommendation that:

> a specific process is provided for Māori to plan for relocation for Māori communities (referred to as Māori-led planning for relocation) that provides the ability for iwi, hapū and Māori communities to decide when adaptation planning was required, and to have the responsibility of preparing local adaptation plans.

> "Western science is wonderfully objective and driven by evidence, and it will test and test to come up with rigorous findings, but quite often that happens in isolation, and then it moves on to the next thing … The difference is that mātauranga Māori and Indigenous knowledge systems understand how to connect that knowledge to the people" (*Professor Rangi Mātāmua*).[11]

Presumably, such a process would need to operate outside the formal planning process, with hearings and appeals proposed for non-Māori local adaptation plans. Where the areas covered by such plans overlapped, there would need to be integration so that mātauranga is embedded in frameworks that inform everybody's outcomes, not just Māori communities.

This all raises the question of whether a 'one size fits all' approach is appropriate or whether some latitude should be retained to enable councils and Māori to develop processes that best suit their

Carving of Rangihokaia, ancestor of Ngāti Wai, Waitangi Treaty Grounds

communities. As we also noted in Working Paper 3, adaptation planning is a fairly recent approach in Aotearoa New Zealand, and further piloting could be useful to test different methods before formalising a preferred process in legislation.

> "Each region will be unique with different environmental, social, local government/council and economic challenges. Therefore any framework will need to have a degree of flexibility" (*anonymous reviewer*).[12]

Due to the reasons set out above, we have concluded that it would be best to evolve local adaptation planning in a stepwise manner, with legislation initially providing a broad framework, which is fleshed out in more detail over time. Where more robust processes are required to implement elements of local adaptation plans, such as preventing new development in high hazard areas or changing the zoning of areas, this could be achieved through the plan change processes under the RMA, thereby avoiding a doubling up of formal statutory process. We set out more details of our recommended framework for local adaptation planning in the sections below.

Recommendations on legislative provision for local adaptation planning

We recommend the Climate Adaptation Act provides only a broad framework for local adaptation planning with more detail set out in mandatory National Adaptation Direction and accompanying National Adaptation Guidance. A separate (and more flexible) process, which can accommodate local tikanga, should be provided for Māori-led adaptation planning. As knowledge of climate risks improves, and experience with local adaptation planning develops, the National Adaptation Direction and Guidance can be updated and strengthened without the need for legislative change.

6.2 National Adaptation Direction

As proposed above, the Climate Adaptation Act could provide for the development of National Adaptation Direction, in order to set out in more detail how local adaptation planning should be undertaken, as well as addressing other relevant matters. Such direction should be mandatory to ensure that it is in fact produced (noting the delay in producing national direction under the RMA when it was left to the discretion of the Minister).

The process for development of such Direction could mirror that for national policy statements under the RMA. This provides for either a board of inquiry process[13] or another process established by the Minister (which must include public and iwi authority notice of the proposed national direction, an opportunity to make submissions, and a report and recommendations to be made to the Minister).[14] Whatever process is adopted, it will be important that provision is made for the Climate Change Commission to provide technical input, particularly on methodologies for undertaking climate change risk assessments.

The National Adaptation Direction (or the Climate Adaptation Act itself) should refer to national guidance, which is regularly updated, in a similar way to Policy 24 of the NZCPS which refers to "taking into account national guidance". This could include the recent MFE coastal hazards and climate change guidance[15] and the guidance on local government adaptation planning which is scheduled to be released in mid-2024.

We have proposed some legislative drafting for the purpose of National Adaptation Direction below. This could be expanded to also include reference to relocation programmes as discussed in Section 8.2 below.

Proposed drafting for national adaptation direction

National adaptation direction

(1) There must at all times be national adaptation direction.

(2) The purpose of national adaptation direction is to achieve the purpose of this Act by providing direction on–

- *(a) methodologies for undertaking natural hazard risk assessments; and*
- *(b) methodologies for identifying and assessing adaptation options; and*
- *(c) the composition of local adaptation plan-making bodies; and*
- *(d) processes for preparing local adaptation plans; and*
- *(e) content of local adaptation plans; and*
- *(f) implementation of local adaptation plans; and*
- *(g) monitoring and review of local adaptation plans; and*
- *(h) any other matters related to the purpose of this Act.*

6.3 Purpose of local adaptation plans

The Climate Adaptation Act should state a clear purpose for local adaptation plans. In broad terms, their purpose should be to identify natural hazard risks affecting an area and specify preferred response pathways over time to those risks. We recommend that the 'area' to which a plan applies be left open in the legislation, but be specified in the plans themselves, to enable the geographic scope of plans to be adjusted depending on the scale of the risks being addressed. The planning time horizon should be mandated as at least 100 years in alignment with the NZCPS. The forthcoming MFE adaptation planning guidance should provide more specificity on such matters.

Statutory provisions could also specify that plans should not be inconsistent with provisions in a national adaptation plan prepared under the Climate Change Response Act and should give effect to National Adaptation Direction as well as take into account any national adaptation guidance. It should also be made clear that local adaptation plans need to provide for the well-being of iwi, hapū and communities and support the adaptive capacity of indigenous species.

With respect to the last matter, in Working Paper 1 we highlighted that "the adaptation of nature to climate change will, in most cases, require human assistance to overcome innate and induced barriers."[16] When planning for the adaption of people and communities in the face of growing climate risks it is also important to consider the needs of indigenous species.

A spotlight on assisting indigenous species to adapt to climate change

In Working Paper 1 we identified several opportunities to support biodiversity adaptation in Aotearoa New Zealand which included:[17]

(a) *Removing physical barriers to adaptation and/or reinstating natural mechanisms or processes.* For example, sediment can be added to habitats to help them keep pace with sea level rise, or water and sediment flows can be restored to facilitate accretion.[18] The removal of built barriers to increase accommodation space ('managed realignment') is another approach with considerable potential to mitigate sea level rise effects on nature.[19]

(b) *Restoring ecological systems*: This include species rehabilitation, restoring hydrological or geomorphic processes, restoring natural vegetation dynamics, improving connectivity between habitat patches, and reducing non-climatic stressors such as pests or habitat fragmentation.[20] In some situations, it may also be appropriate to create new habitats, such as new wetlands to offset historical wetland loss. This approach recognises that protecting and restoring natural processes and ecosystem health is important for maintaining and building biodiversity resilience to climate change.[21]

(c) *Protecting habitats*: This involves increasing the amount of land in protected areas and maintaining large areas of resilient landscapes free from development. It also includes protecting sufficient accommodation space and climate change refugia. Healthy and biodiverse ecosystems are more resilient, and provide higher levels of ecosystem services, than those that are degraded and have lost species.[22]

(d) *Other strategies:* These include assisted translocations and migration of species, intensive management of specific species, ex situ conservation strategies (such as seedbanks/ genetic stores) and assisted evolution (such as manipulating the genes of organisms in order to enhance their climate change resilience).[23] The long-term effectiveness of such strategies for climate change adaptation is unknown, and given the intensive nature of such interventions, they will likely be only suitable for application for a small number of species.[24] One potential exception is the translocation of keystone species to restore ecosystem function.[25]

Dune vegetation at Waikawau Bay. Natural coastal systems will be under increased pressure due to climate change and will likely need help to successfully adapt

Proposed drafting for purpose of local adaptation plans

Purpose and scope of local adaptation plans

*(1) The purpose of a local adaptation plan (a **plan**) is to achieve the purpose of this Act by identifying natural hazard risks affecting an area over at least a 100-year period and specifying preferred response pathways to those natural hazard risks.*

(2) A plan must

(a) specify the area to which it applies; and

(b) not be inconsistent with any provisions in a national adaptation plan made in accordance with Section 5ZS of the Climate Change Response Act 2002; and

(c) give effect to national adaptation direction; and

(d) take into account any national adaptation guidance; and

(e) pay particular regard to any Māori-led adaptation plans applicable to the area; and

(f) provide for the well-being of iwi and hapū in the area; and

(g) provide for the well-being of the communities of the area; and

(h) Support the ability of indigenous species and habitats to adapt to climate change.

6.4 Content of local adaptation plans

It would also be helpful for the Climate Adaptation Act to specify the content of local adaptation plans, at least in broad terms, to provide a framework for what they should include. As proposed above, this can then be fleshed out in the National Adaptation Direction. The Expert Working Group recommended that local adaptation plans should comprise seven key parts:[26]

1. An area-specific all-hazard or hazard-neutral risk assessment
2. Identification and assessment of options for adaptation, including planned relocation, using a DAPP framework
3. A confirmed 'package' or 'pathways' of adaptation measures (relocation and/or other measures)
4. An assessment and identification of options for the relocation of people and/or communities (ie, where they will go), where relocation is considered necessary either in the short or long term, and plans for land relocated from
5. A list of actions required for implementation, including who is responsible for each, and associated timing
6. Review and monitoring requirements
7. A pre-event recovery plan, to address recovery if an event or tolerance trigger occurs before adaptation is implemented.

These recommendations make sense and we have sought to encapsulate them in the proposed drafting below.

An important approach in local adaptation planning is managed realignment, whereby new habitat can be created through removing existing flood or coastal barriers, while at the same time reducing the natural hazard risk to adjacent areas (see spotlight below). Such an approach does not require the relocation of the entire settlement but just some strategically placed properties.

Coastal defences at Ruby Bay, Tasman

A spotlight on managed realignment at Medmerry, Chichester, UK

Medmerry has long been susceptible to coastal flooding. A shingle bank structure, which had been constructed to protect the town, was frequently breached and required £300,000 in annual maintenance.[27] Things came to a head when, in 2008, a flood event caused £5 million of damages. This prompted the initiation of a managed realignment project, which was completed in 2013 at a cost of £28 million.

The realignment was led by the Environment Agency in partnership with the Royal Society for the Protection of Birds. A Medmerry stakeholder group, which included representatives from local authorities, businesses, parishes and residents, was an integral part of the project which involved breaching 110 metres of the shingle bank to allow the ingress of tidal water.

The project created 183 hectares of new intertidal habitat which is now managed by the Royal Society for the Protection of Birds. Additionally, 7 kilometres of new flood banks were constructed some 2 kilometres inland, forming a low-cost flood defence system to protect the two local towns.[28] Ten kilometres of new footpaths, cycleways and bridleways were also built across the site.[29] As well as generating considerable environmental benefits, the project has reduced flood risk to 350 homes, local infrastructure and roading, and did not necessitate the removal of any houses.[30]

Proposed drafting for content of local adaptation plans

Contents of local adaptation plans

(1) A plan must–

(a) identify all natural hazard risks within the area over at least a 100 year time period including compounding and cascading risks; and

(b) identify all reasonably practical measures to adapt to those natural hazard risks including managed alignment and managed relocation; and

(c) assess the social, cultural, environmental and economic impacts of each measure identified; and

(d) state the preferred package of adaptation measures; and

(e) identify any trigger points for implementing those adaptation measures; and

(f) state the intended response if a natural hazard event occurs prior to those adaptation measures being implemented; and

(g) identify responsibilities for implementing measures identified in the plan; and

(h) set out a monitoring and review framework for the plan.

***Managed realignment** means the removal of all or part of an engineered protection or drainage structure to enhance natural habitat and/or natural defences.*

***Managed relocation** means the planned and coordinated movement of people and structures away from areas subject to high natural hazard risks.*

6.5 Preparation of local adaptation plans

As indicated above, the Expert Working Group proposed a formal and rigorous process for the preparation of local adaptation plans, including hearings by an independent panel and some merits appeal rights. This is akin to processes under the RMA. For the reasons set out above we recommend that a less formal and more collaborative process be provided for in the Climate Adaptation Act, at least initially. This is so councils have more flexibility to tailor a process suitable for their affected community and to allow room for the evolution of practice in adaptation planning. It is also to enable a more grass-roots community-led approach which is likely critical to successful implementation. This is more similar to the approach taken under the Local Government Act.

Plan-making process provisions could be provided for in the National Adaptation Direction and Guidance, which could be modified and strengthened over time. They could draw on sections 81 (contributions to decision-making processes by Māori) and 82 (principles of consultation) of the Local Government Act and the community engagement principles, approaches and practice methods to be published by MFE in mid-2024 (as a supplement to the 2024 guidance on coastal hazards and climate change).[31] They could also include the use of community panels, which would consist of people representative of the local community who would provide advice to the decision-maker, as recommended by the Expert Working Group. A broad kaupapa Māori framework could be provided for Māori-led adaptation plans, with sufficient flexibility to enable local tikanga to be applied to specific planning processes.

As the MFE guidance states, "the more complex and contested the decision(s), the greater the level of recommended community or public inclusion".[32] Where the process is seeking to address a complex problem which is challenging to grasp, and where there are high levels of disagreement and low levels of trust, the guidance indicates that a more collaborative approach is appropriate.[33] These are often (but not always) the conditions applying to climate adaptation and managed retreat matters.

Checks and balances on the planning process and content of plans could be provided, first through criteria to access national adaptation funding for preparation and implementation of adaptation plans (as described below), and secondly through the application of RMA processes to any subsequent protection works and/or land use changes.

In the event that consent is declined for a proposed measure set out in a local adaptation plan, then the plan may need to be reviewed and adjusted. A plan should also be reviewed if significant new climate risk information becomes available that is outside the scope of what the plan contemplates or if it becomes evident that measures in the plan can no longer be implemented. This may be for technical, financial or legal reasons.

The next key design questions are how local adaptation plans should be initiated in the first place, who should lead their preparation, and who should finally approve them. The Expert Working Group recommended that plans be mandatory where a region-wide risk assessment and prioritisation exercise identifies an area as requiring adaptation planning. The Group also proposed that the Crown could require such planning, either at the direction of the responsible Minister or in response to a request from a local decision-maker or iwi/hapū. Such direction would be through an Order-in Council.

The plans themselves would be developed by a new body called an 'adaptation committee' which would have flexible membership but likely include the regional council, territorial authorities, appropriate iwi, hapū and Māori representation and an optional Crown representative.[34] It is not clear who would decide the constitution of the committees or how they would be formally established.

We recommend that the territorial authority be tasked with establishing the adaptation committee in the first instance and that its constitution be along the lines suggested by the Expert Working Group including appropriate regional council and iwi, hapū and Māori representation. However, there should be some flexibility (with minimum requirements) to enable the council to establish a partnership body appropriate to local circumstances.

The territorial authority should be able to initiate a plan making process and constitute an adaptation committee on its own initiative.

Coastal defences under seige at Westshore, Napier

It will be incentivised to do so by the funding and technical support arrangements discussed in Section 6.7. It could also be required to do so where a community is subject to high natural hazard risk, and no local adaptation plan applies to the area, or where insurance cover has been withdrawn from all or part of the area due to the high level risk. Insurance withdrawal would be a strong indication that some form of risk reduction, including managed retreat, will need to be contemplated.

In addition, initiation of such planning could be directed by the Minister (as proposed by the Expert Working Group). The Minister's direction could be in response to a request from iwi or hapū, the regional council or a member of the community. It would be accompanied by funding and technical support for the territorial authority where it lacked the requisite resources. An iwi, hapū or whanau could initiate a Māori-led adaptation planning process at any time and seek funding and/or technical support for the process where required.

There could also be provision for when a local authority does not commence the preparation of a local adaptation plan within 12 months of a requirement triggering the need for the planning process. In such a case the Minister could be given the power to intervene and establish an adaptation committee to get on with the job.

Proposed drafting for preparation of local adaptation plans

Preparation, change and review of local adaptation plans

(1) A plan may be prepared or amended at any time.

(2) A territorial authority must initiate the preparation of a plan–

- *(a) where a high natural hazard risk affecting its community (whether now or in the future) is known to the territorial authority and no plan applies to the area subject to the risk; or*
- *(b) where residential property insurance cover is no longer available for part or all of its community due to the level of natural hazard risk; or*
- *(c) when directed by the Minister.*

(3) On initiating the preparation of a plan the territorial authority must establish a plan-making body.

(4) A plan-making body must include representation from:

- *(a) the territorial authority; and*
- *(b) the regional council; and*
- *(c) the affected community; and*
- *(d) iwi and/or hapū with interests within the plan area; and*
- *(e) environmental interests.*

(5) Any local authority with jurisdiction over part or all of the plan area may appoint a representative for inclusion on the plan-making body.

(6) The Minister may make additional appointments to the plan-making body.

(7) Before adopting or amending a plan the plan-making body must establish a process that—

- *(a) gives effect to national adaptation direction; and*
- *(b) takes into account national adaptation guidance; and*
- *(c) promotes inclusion and a collaborative approach to plan-making; and*
- *(d) gives affected parties, the public, local authorities, central government agencies and iwi and hapū authorities adequate time and opportunity to meaningfully contribute to the development of the plan.*

(8) A plan must be reviewed:

- *(a) if there is significant new information about climate change risk affecting the area which is outside the scope of the plan; or*
- *(b) if monitoring indicates that the measures in the plan are unlikely to reduce the natural hazard risks affecting the community to tolerable levels; or*
- *(c) if a measure set out in the plan is unlikely to be implemented due to legal, technical or financial reasons; or*
- *(d) if the plan has not been reviewed during the past 10 years.*

6.6 Implementation of local adaptation plans

Local adaptation plans could be implemented using a number of mechanisms, including through:

- Changing provisions in regional and district plans under the RMA, including by inserting natural hazard or adaptation overlays, using activity status and policies to restrict development in high hazard areas, identifying future relocation areas (in a similar way to the identification of future urban areas under future urban development strategies), and including policies around the construction of seawalls and flood defences. Such structures could potentially be classified as a prohibited or non-complying activity, where they are not part of the preferred adaptation pathway, and restricted discretionary activity where they are.

- Resource consenting under the RMA for activities and structures identified as part of a preferred pathway in the local adaptation plan.

- Long term plans under the Local Government Act, including infrastructure and financial strategies, to budget for plan implementation.

- Accessing funding from the National Adaptation Fund (as described below).

- Preparation of relocation programmes when it comes to relocation of buildings and infrastructure (as described below).

In addition, the local adaptation plans, if certified as compliant with the provisions of the Climate Adaptation Act, could be given regulatory status under other legislation such as the RMA, Building Act and Local Government Act by becoming a document that decision-makers must "take into account" or "pay particular regard to".

There could also be a more formal link created between the local adaptation plans and district/regional plans under the RMA. A certified local adaptation plan could automatically generate an 'adaptation overlay' that was inserted into the RMA plans with a provision that any resource consent applications for activities within the overlay area would need to demonstrate that they were not inconsistent with the local adaptation plan or automatically be classified as a non-complying activity.

Certification of the plans could be undertaken by an independent body such as the proposed National Adaptation Agency (see section 8.1) or the Climate Change Commission. It could ensure that a robust process was followed, that the plan had a sound evidentiary basis, that it complied with national direction, and that all options were fully explored. Certification would be important if a less formal mechanism for creating local adaptation plans were pursued (as recommended) and they were to have regulatory status under other legislation.

Recommendations on implementation of local adaptation plans

We recommend that local adaptation plans be implemented through changing planning provisions under the RMA (including future development strategies), resource consenting, long-term planning under the Local Government Act (including infrastructure and financial strategies), accessing funding from the National Adaptation Fund and preparation of relocation programmes. The plans should also be given statutory weight in other decision-making processes if certified as compliant and could automatically generate an 'adaptation overlay' in RMA plans.

6.7 Funding local adaptation planning

The Expert Working Group recommended that "a mix of local and central government funding should be used for risk assessments, relocation decisions and planning processes"[35] without specifying what such a mix might look like in any particular case. It noted that "in principle the funding source should match the level at which decisions are made or responsibility and accountability is located" while noting that more specific and explicit arrangements should be set up for cost-sharing between central and local government.[36]

Notably, the Expert Working Group reiterated the need to avoid unintended consequences by creating adverse incentives through national funding approaches. For example, it noted that central government provides 60 per cent of costs (at least) for recovery after a natural hazard event but provides no certainty as to funding for local government to reduce risk prior to events happening.[37] Such funding is ad hoc and does not necessarily require proper evaluation of all adaptation options. In Working Paper 3 we highlighted central government's allocation of funds to protection works in Westport and Franz Joseph without any associated long-term adaptation planning, and without similar consideration of financial support for planned relocation.

We also note the recommendations of the Māori Affairs Select Committee on adaptation funding, which were that adaptation funding policies and frameworks should:

- Give effect to Te Tiriti
- Compensate Māori fairly for any loss of land or culturally important sites
- Fund mātauranga Māori research
- Fund Māori to participate in adaptation plan development processes led by others or to develop their own adaptation plans
- Fund the implementation of Māori adaptation plans, including mātauranga Māori solutions.[38]

One way to address such funding considerations would be to establish a National Adaptation Fund from which funding could be sourced for a range of adaptation actions (including planning) based on a set of clear criteria as to what would be eligible and what quantum of funding might be available. It could be an extension of the National Disaster Fund which will be renamed the Natural Hazard Fund when the Natural Hazards Insurance Act 2023 comes into force in July 2024.[39] However, there may be merit in having separate funds, each with specific statutory criteria for use, rather than putting 'all the eggs in the same basket'.

Many parties have called for the establishment of a National Adaptation Fund. As the Resource Management Review Panel noted "LGNZ [Local Government New Zealand], EDS and the Productivity Commission have all recommended a central fund to assist with climate change adaptation…". The Panel went on to state "Given the scale of the challenges and the current constraints on local government, there is a strong case for establishing a national funding mechanism for pre-emptive adaptation and risk reduction measures."[40]

The Future for Local Government Review Panel also recommended the establishment of a fund for climate change adaptation efforts across the country which would "need to bear the brunt of climate adaptation costs". The Panel explained that "without a comprehensive and sizeable fund to enable the country to respond to these challenges, we will be constantly caught responding to the next crisis".[41]

The Expert Working Group reiterated this point and highlighted that it was hard to see how intergenerational fairness "can be adequately addressed without the establishment of some form of dedicated fund".[42] As the Group explained, a national adaptation fund could be resourced by a specific levy or from general taxation or through a combination of both.[43]

> "… it's clear that relying on a 'pay as you go' approach and dipping into the yearly budget isn't sustainable" (*Sir Brian Roche, Chair of the Cyclone Gabrielle Recovery Taskforce*).[44]

As we highlighted in Working Paper 1, there are a variety of potential sources of revenue to fund climate adaptation, and which could be drawn on to establish a National Adaptation Fund. These include:

- General taxation
- Property rates
- An additional levy on home insurance policies
- An additional levy on fossil fuels
- A new levy on property transfers
- Drawing revenue from the Climate Emergency Response Fund
- Revenue from renting purchased properties until removal or demolition
- Revenue from selling relocated dwellings and other structures that can be repurposed
- New taxes such as a comprehensive capital gains tax

Providing the bulk of the funding from general taxation may be the fairest and most cost-effective approach, minimising administration and compliance costs. However, a specific climate adaptation levy could also be considered, such as a targeted 'stamp duty' on property transfers.[45]

Applications could be made to the National Adaptation Fund to support local adaptation planning processes, with the quantum of funding provided based on need (eg the severity of the natural hazard risks faced by the

community and the resources available to the council to undertake a planning process). The availability of such funding could act as an incentive for councils to embark on local adaptation planning processes, especially if such funding covered a significant portion of the planning costs. Part of the support provided could be 'in kind' through providing technical resources such as data and expertise to support councils and iwi/hapū/whanau. These could be sourced from the private sector, crown research institutes or a specialist central government agency (such as the National Adaptation Agency discussed below).

A specific portion of the fund should be made available to iwi/hapū for their own adaptation planning to ensure they are not competing against local government for the same scarce funds. An example of such dedicated funding is that provided by the USA federal government for the voluntary relocation of Alaskan tribal villages (see spotlight below).

A spotlight on funding for voluntary relocation of Alaskan villages[46]

The USA Department of Interior is leading a new Voluntary Community-Driven Relocation Program, announced in 2022, to assist native tribes severely impacted by climate-related environmental threats. It is being supported by USA$115 million of federal funds to support 11 tribes to undertake adaptation planning and relocation.

The program is commencing with a pilot project where three tribes will each receive USA$25 million to relocate inland. Key buildings will be moved first followed by homes. The federal government will then give eight more tribes USA$5 million each to undertake adaptation planning.

Once a local adaptation plan has been finalised application could be made to the National Adaptation Fund to support implementation. This could be assessed on need and overall public benefit (on the basis that, in the first instance, those directly benefitting from adaptation measures should pay). Alternatively there could be standardised criteria for different costs such as for construction of defence works, acquisition of property, demolition of physical structures and land remediation. There could be an in-built assumption that Maori-led adaptation plans (so long as they met some minimum criteria co-developed with iwi) would receive implementation funding and support.

More generous funding could be made available to councils to support managed realignment (ie providing more room for rivers and the sea) and other measures to support the adaptation of nature. Innovation grants could also be made available to support innovative responses to adaptation by councils, iwi/hapū/whānau and communities, including piloting new approaches.

An additional incentive for councils to embark on local adaptation planning (and to help avoid 'maladaptive' projects) could be a requirement that no central government funding be made available for community adaptation measures (such as floodbanks and seawalls) until a local adaptation plan has been prepared and certified and the measures to be funded are identified as preferred options in the plan.

Provision could also be made for government to issue an 'adaptation funding policy' to set out what it is seeking to achieve from the allocation of funding from the National Adaptation Fund including its funding priorities over the next period (say 10 years). This could be similar to how the general policy statement, under the Land Transport Management Act 2003, operates to guide central government transport funding.[47]

Although this would provide some flexibility to adjust criteria over time, it could result in funding priorities becoming politicised. An alternative would be for criteria to be hard-wired into the Climate Adaptation Act, in a similar manner to how criteria for compensation is set out in the Natural Hazards Insurance Act and the Accident Compensation Act 2001. The Fund itself could be administered by a new National Adaptation Agency discussed in section 8.1 below.

Recommendations on funding adaptation

- We recommend that government establishes a National Adaptation Fund, to be capitalised from a specific levies, general taxation or both.
- The Fund should be used to provide councils and iwi/hapū/whanau with financial support to undertake local adaptation planning as well as to implement the plans.
- A regularly updated Adaptation Funding Policy could set out priorities for expenditure of the Fund. Alternatively these could be hard-wired into the Climate Adaptation Act.
- No government funding for adaptation works (including seawalls and stop banks) should be provided unless a compliant local adaptation plan has been prepared and it identifies such works as part of the preferred adaptation pathway.

Abandoned house on the coastal front line at Haumoana, Hastings

Endnotes

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7 Property acquisition and compensation

Seawall protecting Hokitika

When it comes time for managed relocation to be undertaken, public authorities will need statutory powers to acquire property, whether voluntarily or compulsorily, and to pay compensation to the property owners (to the extent it is provided). We discuss these elements in the sections below.

7.1 Property acquisition powers

As we indicated in Working Paper 3, and as was pointed out by the Resource Management Review Panel and the Expert Working Group, the Public Works Act is not suitable for land acquisition under a planned relocation situation. This is because:

- The Act only applies to 'public works' which likely do not include managed relocation;
- Compensation under the Act is based on the market value of the land at the time of transfer and in a managed relocation situation the market value at that point is likely to be negligible; and
- Māori have deep concerns about the use of the Public Works Act because it has been historically used to dispossess them of land.

We therefore recommend that the Climate Adaptation Act include land acquisition provisions tailored for managed relocation. We have set out some drafting for these below. The drafting refers to relocation programmes which are discussed in Chapter 8. We have proposed that the tests in the Public Works Act apply, that the taking of the land is "fair, sound and reasonably necessary for achieving the objectives of the Minister or local authority, as the case may require".[1] This is in contrast to the unfettered compulsory acquisition powers provided for in the Canterbury Earthquake Recovery Act 2011 (now repealed) which enabled the Minister to acquire land compulsorily merely by publishing a notice twice in the *Gazette* and with no objections to the taking to be entertained.[2]

Umupuia Marae which is subject to flooding

In addition to such requirements, the statutory provisions need to make it clear that such compulsory powers cannot be applied to Māori land. As described above, due to the extent of historical land loss, Māori land now only comprises around five per cent of the country and it is important that this is retained in Māori ownership.[3]

Proposed drafting for land acquisition powers

[X] Acquisition of land

(1) The Minister is hereby empowered to acquire under this Act any land subject to a relocation programme.

(2) Every local authority is hereby empowered to acquire under this Act any land subject to a relocation programme for which it has responsibility.

(3) The Minister or local authority may enter into an agreement to purchase any land subject to a relocation programme for which the Crown or local authority, as the case may be, is responsible.

(4) The Minister or local authority may acquire land subject to a relocation programme compulsorily for which the Crown or local authority, as the case may be, is responsible but only subject to section [XX].

(5) Where any land is acquired by the Crown or the local authority under this Act, compensation is payable in accordance with Part [X] of this Act.

[XX] Compulsory acquisition of land

(1) Notwithstanding section [X](4) Māori land may not be compulsorily acquired under this Act.

(2) Land may only be compulsorily acquired in accordance with any applicable relocation programme.

(3) When compulsorily acquiring land under this Act, the acquisition must be carried out in accordance with sections 23, 24, 25 and 26 of the Public Works Act 1981 (Process for notice, objection and hearing by Environment Court) which applies with all necessary modifications.

***Māori land** – has the meaning given in section 4 of the Te Ture Whenua Māori Act 1993.*

7.2 Public compensation

Whether public compensation should be paid, who should receive it, and how much, is one of the trickiest elements of managed relocation policy. The Resource Management Review Panel emphasised that funding and compensation for affected communities are perhaps the most significant issues to be addressed in the new legislation.[4]

In Working Paper 1 we canvassed the reasons why a public compensation scheme might be desirable in the public interest. These were explored in more detail in Boston (2023).[5] They included upholding the tradition of social solidarity where members of a group support each other (including collective risk-pooling), upholding the principles of remedial responsibility (where people in need are given assistance), ensuring that everyone has access to adequate and affordable housing, incentivising voluntary relocation, and upholding the principles of compensatory and restorative justice (where unjustified loss is compensated and injustices put right). This is on the basis that many people will be affected by climate risks through no fault of their own and/or will lack the necessary means to relocate to safer areas.

In addition, if compulsory acquisition of property is to be contemplated for managed retreat, there is a long-established practice in Aotearoa New Zealand (and internationally) of providing compensation (including under the Public Works Act) although this is not necessarily legally required in all cases.

The Expert Working Group gave the issue of public compensation close scrutiny. It dismissed the option of providing little or no government support to property owners undertaking managed retreat on the basis that:

> we consider it is too austere and may be counter-productive. It is inconsistent with the objective of reducing hardship due to the impacts of climate change. It will also create a strong disincentive for voluntary participation in any planned relocation, and thus will create a significant barrier to any successful attempt to reduce exposure to natural hazard risks. This will be detrimental to the public interest. Moreover, it does not accord with Aotearoa New Zealand's social values and commitments, as shown to date in a variety of settings (such as accident compensation, government superannuation, the provision of subsidised public insurance for natural hazard damage, and successive governments' responses to disasters of various types).[6]

The Expert Working Group also dismissed the other extreme of providing full compensation. This was on the basis that it would serve to preserve and exacerbate existing disparities in wealth and likely exacerbate existing socio-economic inequalities. In addition, the fiscal costs would be high and it could also undermine the social licence for government intervention.[7] This is apparent if one considers the prospect of taxpayers money (much paid by renters) being used to compensate for the loss of multi-million dollar second homes.

Before getting into the detail of actual payments, it is useful to be clear about the purpose of compensation. As we have already noted, the Resource Management Review Panel suggested that funding should have the goals of long-term cost minimisation and equitable burden sharing.[8] MFE proposed a series of objectives and principles for funding responsibilities which are set out in Figure 11.

Objectives	Principles
• To reduce hardship due to the impacts of climate change	• Limit Crown's fiscal exposure • Minimize moral hazard
• To incentivise better long-term investment decisions concerning climate change risk	• Solutions are designed to be as simple as possible • Ensure fairness and equity for and between communities, including across generations
• To reduce liabilities, including contingent liabilities of the Crown	• Minimize cost over time by providing as much advance notice as possible • Solutions support system coherence and the overall adaptive system response
• To support the role of banking and insurance in facilitating risk management	• Risks and responsibilities are appropriately shared across parties including property owners, local government, central government, and banks and insurance industries

Figure 11: MFE proposed objectives and principles for funding responsibilities

The Expert Working Group discussed these, highlighting that they do not address the position of Māori explicitly and this gap needs to be rectified. The Group also emphasised that "reducing hardship due to the impacts of climate change is an important aim",[9] something that we have reflected in our recommended wording of the overall purpose of the Climate Adaptation Act (see Chapter 3). The Expert Working Group further explained that, in its view, reducing hardship does not include preserving people's existing wealth and such wealth preservation should not be an objective of managed relocation compensation.

As part of a set of principles to guide compensation, the Expert Working Group emphasised that "the scheme should be fair and contribute to compensatory, restorative and distributive justice". It should also "take proper account of the rights and interests of Māori".[10] It highlighted that simplicity, efficiency and certainty are important. We have drafted a purpose clause for adaptation compensation drawing on these concepts, noting that we have already included concepts of fairness and equity in the principles that will apply to all decision-making under the legislation.

Proposed drafting for purpose of adaptation compensation

Purpose of adaptation compensation

The purpose of adaptation compensation is to achieve the purpose of this Act by:

(a) alleviating hardship caused by managed relocation away from areas subject to high natural hazard risk; and

(b) supporting people to re-establish homes and businesses in safe locations; and

(c) alleviating the impacts of natural hazard risks on Māori rights and interests; and

(d) incentivising participation in managed relocation; and

(e) incentivising sound long-term investment decisions concerning natural hazard risk.

For a start, we have emphasised the prime focus of compensation: to alleviate hardship caused by the need to move homes and settlements to a safer location. We have also highlighted the importance of helping people to re-establish their homes and effectively get on with their lives.

Financial support will also be an important tool to help address the impacts of climate change on Māori rights and interests, including the costs of moving marae and papakāinga complexes away from areas with flooding and coastal erosion risks. For Māori communities, such support needs to be focused on the facilitation of relocation to safe areas (including the provision of land to enable this where needed) and not on the purchase of Māori land itself. Even if not safe for occupation, Māori-owned land is still of considerable value to its owners and may be repurposed for activities such as food production. Where new land is acquired, managed relocation could serve to expand the Māori-owned land estate.

Other potential purposes of compensation are to incentivise people to participate in managed relocation exercises as well as undertake good long-term decision-making (that is, avoid 'moral hazard'). Moral hazard can occur, for example, when people over-invest in buildings in high hazard areas in the expectation that government will cover any future losses. It can also occur when people decide not to insure their properties in the expectation that government will provide compensation if losses are incurred due to a natural hazard event.

In terms of the specifics of a compensation scheme, the Expert Working Group recommended a middle ground position with the following key elements:

- Residential buildings which are principal places of residence be compensated based on market value with a cap of $300,000 (similar to that provided under the Natural Hazards Insurance Act).
- Compensation for residential land be provided on a similar basis as under the Natural Hazards Insurance Act (which only covers land under and within eight metres of a residential building),[11] although where this is less than the minimum plot size that can be permitted for residential development in the relevant territorial authority area, the compensated land area is increased to equal the minimum plot size. The land value would be based on the latest rateable value and could have a cap or be based on the average rateable value of land in the same location.
- Payment to commercial properties be based on need.
- Payment to residential rental properties be less than owner-occupied properties but more than commercial properties.
- No compensation be provided for second homes.
- Full compensation be provided for not-for-profit owned buildings.
- For iwi, hapū and Māori owned property, compensation be determined through case-by-case negotiations with a starting point of full compensation.

The Expert Working Group recommended that central government cover the cost of compensation, which could be sourced from the National Adaptation Fund described above. This makes sense as it seems unlikely that most councils will be able to fund compensation for managed relocation exercises of any size. Overall, the Expert Working Group's recommendations on compensation appear to be well thought out and something which we support as a solid starting point.

It will be important to carefully tailor the approach towards iwi, hapū and Māori owned property to ensure there is no 'taking' of land except in exceptional circumstances and with full consent, and that financial support to assist with adaptation is not predicated on land changing ownership. As noted above, the starting point should be that Māori land stays in Māori ownership.

Recommendations on public compensation scheme

We recommend the Expert Working Group's proposals on a public compensation scheme be used as a starting point to enshrine a compensation scheme in the Climate Adaptation Act in a similar manner to part 2 of the Natural Hazards Insurance Act which clearly sets out natural hazard cover and entitlements. A carefully tailored approach will be needed for Māori-owned land.

As well as compensating for the loss of property, other assistance will likely be required for people relocating. This includes helping with the physical costs of relocation, particularly for those with little means, and providing temporary accommodation for those in transit between homes (which could later be repurposed as social housing). Specific support will be needed for the relocation of Māori communities and associated buildings and taonga.

Consideration also needs to be given to businesses exposed to climate risks, and needing to relocate, and whether public funds should be used to provide assistance. As we discussed in Working Paper 1, as well as the

direct risks from flooding and coastal erosion, businesses face a range of compounding and cascading risks to their ongoing viability. There is an argument that some assistance should be provided to business affected by such risks, but alternatively, businesses unable to adapt might best be left to fail thereby freeing up resources for more climate resilient enterprises.[12] As indicated above, the Expert Working Group recommended that compensation for the loss of commercial properties be based on need. This makes sense given the very different circumstances of individual businesses. The contribution to the overall public good, from supporting particular businesses, would also need to be considered given that it involves the use of public funds.

Any managed relocation funding scheme will also need to consider the provision of infrastructure. As we described in Working Paper 1, there are two different circumstances under which managed retreat of infrastructure might need to occur. The first concerns assets that are threatened by climate risks and need to be moved out of harm's way. The second is when infrastructure needs to be moved alongside communities undertaking managed retreat.[13]

Financial agreements with infrastructure providers may need to be reached to support relocation given the current infrastructure deficit which is estimated to be close to $210 billion over the next 30 years.[14] As we noted in Working Paper 1, property rates will not be sufficient on their own to close the infrastructure deficit, let alone cover the costs of climate adaptation.

It will be important that any investment in infrastructure is made wisely, and in light of the demand trajectory over the long term. This is to avoid stranded assets and wasted money should the community relocate during the lifetime of the investment.

The Adaptation Fund could be used to assist with the cost of managed relocation of infrastructure. This could be structured to incentivise the construction of nature-based green infrastructure in new locations, as well as the remediation of vacated infrastructure sites.

Constructed wetland and native planting as part of new development at Snells Beach, Auckland

7.3 Insurance

"Estimates of the protection gap for the Auckland Anniversary Weekend floods and Cyclone Gabrielle place around a third of physical asset damage as uninsured, equivalent to $2.3 billion" (*Roshen Kulwant and Michael Bealing, NZIER*).[15]

Insurance is critically important when considering climate adaptation. When damage occurs as the result of a weather-related event, insurance can cover a large proportion (but certainly not all) of the cost of recovery. When the risk of damage becomes too great, premiums can rise or insurance cover can be withdrawn. This can have profound consequences for homeowners. If insurance is unaffordable or unavailable, they not only face losing their home in the event of a hazard event, but will likely be unable to sell it as banks will not lend on an uninsured asset. For some, their only significant source of wealth would be on the line.

"For many New Zealanders, their home is their 'main source of wealth'. Losing an uninsured property would plunge many people into poverty" (*Michael Bealing, Principal Economist, NZIER*)[16]

In a pre-emptive managed relocation exercise, insurance will not feature as such, as damage has not occurred. This means that the costs of loss of property and removal of structures falls on either the owner, or a public body such as central government or the council, if compensation is provided as recommended above.

The mere demarcation of a settlement as a site for managed relocation, due to high risk, could potentially prompt insurance withdrawal. Alternatively, insurance withdrawal may have occurred prior to such a move. We have already seen IAG announce that it would not offer ongoing insurance for properties that have been identified as Category 3, in wake of the 2023 weather events, although it would continue to provide cover until the voluntary sale of the property to council is completed or the offer expires or is rejected.[17] This means that any property owners deciding not to take up the voluntary offer will likely become uninsured.

IAG has also indicated that it may move to risk-based pricing, so that properties confirmed as Category 2P (where property level interventions are needed to managed risk) may see both their premium and excess increase.[18]

This is why it will be important that any managed retreat process is aligned with insurance cover. In the event that private insurance is withdrawn, the government will need to consider whether to fill the gap. The Expert Working Group suggests that where private insurance cover is not available, comprehensive natural hazard cover could be provided by Toka Tu Ake-Natural Hazards Commission directly.[19]

Providing discounts on insurance premiums could be used as a way of incentivising risk reduction activities. For example, the USA Federal Emergency Management Agency administers a community rating system for its national flood insurance programme (see spotlight).

Spotlight on the USA flood insurance community rating system[20]

The US Federal Emergency Management Agency administers a national flood insurance programme, to offer reasonably priced flood insurance to property owners, in the absence of the private sector covering flood losses. The Agency offers discounts on flood insurance premiums from 5 to 45 per cent where communities implement additional flood protection actions. The community rating system is based on a series of credits which communities can claim depending on the activities undertaken. These include disclosure of hazard to potential purchasers, provision of flood protection information to the public, provision of technical advice to property owners on protecting their buildings from flooding, and mapping floodplains and applying higher regulatory standards for buildings within them, amongst many other things.

For residential properties slated for managed relocation, the Expert Working Group has recommended that homeowners "be required to maintain a stated minimum amount of natural hazard insurance until their relocation occurs" given the property will be eventually owned by the Crown.[21]

Recommendations on insurance

We recommend that further work be undertaken on the interface between insurance and managed relocation including the option of Government stepping in when private insurance cover is not available. Incentivising risk reduction actions through offering insurance premium discounts should also be considered.

Stopbank on the Waiho River protecting Franz Josef wastewater treatment plant

Endnotes

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8 Relocation process

Houses on the front line, Haumoana, Hastings

We describe various elements of the actual relocation process in the sections below, including the establishment of a dedicated national agency, development of relocation programmes, movement of people, withdrawal of services and development of new settlements.

8.1 National Adaptation Agency

Successfully relocating communities is a complex and often fraught process. It will require an implementation team with a wide range of skills, including expertise in social processes. In some cases, where only a small number of houses are affected, relocation may be something that a territorial authority is able to successfully undertake on its own. But where numerous properties are affected it seems likely that a fit-for-purpose national agency will be required. For this reason, we recommend the establishment of a new Crown entity, the National Adaptation Agency, to oversee relocation processes in association with local entities. This is in line with the suggestions of the Expert Working Group that a National Resilience and Recovery Agency or similar could oversee the implementation of a relocation programme (described below).[1]

The configuration of the agency could build on, and learn from, the now disestablished Christchurch Earthquake Recovery Authority. It would need to have a specialist Māori team, with skills in tikanga Māori, to support iwi, hapū and whānau to undertake their own adaptation planning and implementation.

To be effective, the Agency would need 'boots on the ground' in areas where relocation was taking place and have strong relationships with local entities. This would necessitate a number of regional and/or local offices which could expand or contract depending on the scale and timing of the various relocation processes. The identification of preferred pathways and triggers in local adaptation plans for managed relocation, ahead of time, should provide the agency with advance notice of the likely workload over a number of years, enabling it to gear up and down when required.

A National Adaptation Agency could also serve as a technical resource to support councils and iwi/hapū in undertaking local adaptation planning, as described above, could certify the plans and could oversee the distribution money from the National Adaptation Fund for their implementation.

Recommendations on National Adaptation Agency

We recommend that a national agency be established, which we have provisionally called the National Adaptation Agency, to oversee managed relocation processes around the country. The Agency should house a specialist team tasked with supporting iwi, hapū and whānau to plan and undertake climate adaptation.

8.2 Relocation programmes

The Expert Working Group recommended that a new tool termed a 'relocation programme' be developed to plan the implementation of managed relocation. This makes sense, so that a relocation process could be properly planned before execution.

A relocation programme would have a different purpose to the local adaptation plan. Whereas the adaptation plan would identify the natural hazard risk facing the community and pathways for planned responses to it over time, the relocation programme would deal with the nuts and bolts of actually moving people and infrastructure during a managed retreat exercise.

Under the Expert Working Group recommendations, the programme would be prepared by an 'adaptation committee' or Māori decision-making body (for Māori-led adaptation) and would be approved by the Crown. It would include all the actions required to effect managed relocation including the future use and management of the vacated land. It's preparation would occur when a trigger identified in the local adaptation plan was reached or a significant event occurred which made it obvious that relocation was needed.[2]

Although there will need to be strong local involvement in preparing relocation programmes, we recommend their development be overseen by the National Adaptation Agency. This is because the Agency will be responsible for implementing the programmes and therefore should have input into their development. In addition, this will enable the Agency to build up considerable experience in how such relocation exercises might best be undertaken. This will need to include expertise around infrastructure relocation, land exchange agreements, land management and valuations. The Agency could establish a local relocation panel with the requisite local and national expertise to assist with development of the programme.

Vacated houses in South Piha due to slip damage

We agree with the recommendation of the Expert Working Group that the programme be approved by the Minister before implementation. This is because of the considerable powers that might be deployed, including compulsory acquisition powers, as well as the significant public financial implications of any relocation exercise.

Recommendations on relocation programmes

We recommend that a relocation programme be developed before managed retreat is undertaken in any particular locality. The process should be overseen by the National Adaptation Agency, which will be charged with managing the implementation of the programme, but with close local involvement. It should be approved by the Minister before implementation.

The Expert Working Group recommended that relocation programmes authorise the specific powers and processes needed to achieve relocation including acquisition of land, payment of compensation, changing the uses of retreated land and providing support to affected people.[3] We consider that legal powers for matters such as land acquisition, payment of compensation and withdrawal of services should be included in primary legislation rather than being left to local planning processes. This is to ensure that there are adequate checks and balances around their use and national consistency and fairness in their deployment. The relocation programme could then be more focused on deploying the requisite powers through identifying the actions to be undertaken, the timing of them, and who will be responsible for undertaking them.

Not all the powers provided in the Climate Adaptation Act would necessarily be deployed in any particular managed relocation, but they would be available in case they were needed. This was the approach taken in the Urban Development Act, where significant new development powers were provided in the legislation, even though they wouldn't necessarily be required in any particular land development project. The Ministerial sign-off of the relocation programme would provide a check and balance on any abuse of such powers.

It will also be important to ensure that relocation programmes are subject to other legislation, such as the RMA, so they cannot override environmental protections.

Recommendations on powers to implement relocation programmes

We recommend that the powers to implement relocation programmes be provided for in primary legislation with the relocation programmes setting out the actions to be undertaken, their timing and responsibilities for undertaking them.

The Expert Working Group set out the matters that a relocation programme would need to address, which include identifying specific properties and assets that will be subject to relocation (and details of use and ownership change), the details of the relocation process including what financial assistance will be provided, the timing of relocation, where residents could move to (if applicable) and any specific requirements for the relocation of infrastructure. In addition, the programme would set out the roles and responsibilities for land post-relocation, including land-use management, details of any values to be protected, and kaitiakitanga opportunities for mana whenua.[4] This all makes sense. A relocation programme should also address the withdrawal of services, setting out what services are intended to be withdrawn and when. We have proposed some drafting for the content of relocation programmes below.

Coastal cliff erosion at Ferry Landing, Whitianga

Proposed drafting for content of relocation programmes

Contents of relocation programmes

A relocation programme must identify–

- *(a) the properties and assets which will be subject to relocation; and*
- *(b) the timing of relocation including the final date for vacating properties and circumstances when early vacation may be required; and*
- *(c) any properties which are intended to be publicly acquired; and*
- *(d) any financial or other assistance which will be made available to affected parties; and*
- *(e) the nature and timing of any intended withdrawal of services; and*
- *(f) responsibilities for removal of any remaining buildings and infrastructure; and*
- *(g) how any vacated land will be managed including any lease agreements or conditions around land use; and*
- *(h) how ongoing cultural and social associations with the vacated area will be supported; and*
- *(i) how indigenous habitat restoration will be promoted; and*
- *(j) how kaitiakitanga opportunities for mana whenua will be supported; and*
- *(k) responsibilities for implementing measures identified in the programme; and*
- *(l) a monitoring and review framework for the programme.*

***Managed relocation** means the planned and coordinated movement of people and structures away from areas subject to significant natural hazard risks.*

Along with public engagement during the preparation of the relocation programme, the Expert Working Group recommended that there be a formal process of public submissions and hearings before the relocation programme is finalised. This makes sense given the significance of the elements of the relocation programme for the people affected.

Recommendations on process for preparation of relocation programmes

We recommend that public submissions and hearings on draft relocation programmes be provided for before finalisation.

In some cases, new communities may be built for people to move into, or vacant land identified for the relocation of houses. Where feasible, new sites could be swapped for vacated sites by ballot, thereby enabling relocatable houses to be moved to safer locations and minimising losses (see spotlight on the relocation of Grantham, Queensland).

A spotlight on the relocation of Grantham

Grantham, a small town in Queensland, Australia, was built on a floodplain and had experienced multiple instances of flooding over 150 years. Things came to a head when, during the Queensland floods of 2010-2011, a flash flood inundated the town, killing 12 of the 370 residents and damaging numerous buildings.[5] After witnessing the destruction caused by one of the worst flooding events in the town's history, the Mayor decided to look at other options before rebuilding.[6] Within three months, the Lockyer Valley Regional Council had purchased a 938-acre site on a nearby hillside unaffected by flooding.[7] It took only a further four months to rezone the rural land for urban use, utilising special fast track procedures under the Queensland Reconstruction Authority Act 2011.

Owners of affected properties were able to swap their land for a plot of similar size within the newly developed area. Although they were able to nominate their preferred block, the final allocation was by ballot to ensure transparency.[8] Participation in the land offer programme was voluntary. In the end, around 110 land titles in the new area were transferred and built on, but more than 50 houses remained in the old flood-risky part of the town. Some residents stayed put because they could not afford to move, being unable to fund the construction of a new home on the resettlement site.[9] Some were later impacted by floods in 2017 and 2020.[10] The Council later sold vacant blocks of land in the new settlement area on the open market to offset part of the cost of the land swap programme.[11]

Kāinga Ora could be tasked with creating new communities under the Urban Development Act where needed, since that statute provides for the development of greenfields sites. In this respect it could be useful to amend the purpose of that Act to add "safe" communities as something that urban development is intended to contribute to. In addition, the Crown may need to consider making available or purchasing land for the relocation of marae, papakāinga and/or taonga where the iwi, hapū or whānau lacks suitable safe land to move to.

Proposed drafting for amendment of the Urban Development Act

3 Purpose of this Act

(1) The purpose of this Act is to facilitates urban development that contributes to sustainable, inclusive, safe, and thriving communities.

***Safe** means not exposed to significant danger or risk.*

8.3 Withdrawing services

The potential withdrawal of services to communities is a sensitive topic. If people cannot access basic services such as water, wastewater, electricity and access roads, they may be forced to move even if they wish to remain (eg because they lack sufficient funds to purchase a home elsewhere). Conversely, if councils and other infrastructure providers are required to continue to provide services to the few remaining residents in a managed retreat exercise, the cost can be exorbitant (see spotlight on the provision of services to Christchurch red zone properties below).

A spotlight on provision of services to Christchurch red-zoned properties

After the 2010-2011 Canterbury earthquakes, and the government offer to buy out properties in red-zoned areas, most of the 6,000 or so original residents accepted the offer and left the area. However, some remained, refusing to accept the Crown's offer. The Christchurch City Council concluded it was legally obliged to provide services to the remaining homes. In 2012, the council estimated that it would cost over $16,000 per household to retain services to those properties compared to around $600 per property pre-earthquake.[12] In 2014, the council reported that more than $3 million was spent to maintain infrastructure to red-zoned homes.[13]

By 2017 there were still 44 occupied properties left in the flat, red-zoned areas. The council started using large suction tankers to regularly suck sewage out of manholes, and truck it to the city's wastewater treatment plant, because the earthquake had damaged the water and sewerage network and broken essential pipes. These measures came at a cost of nearly $500,000 a year and averaged out at around $11,000 per property. The Crown covered half this cost.[14] Water was supplied through temporary pipes that ran above-ground.

In 2018, the council offered to buy out five red-zoned properties when the temporary above-ground water pipes were reaching the end of their useful life. This was considered cheaper than installing new services, but only one property owner accepted.[15] For another isolated property, the Council spent $74,000 to connect the house with permanent water and sewage services. By 2021, the Council had provided new water and wastewater services to nine properties in the Avon river red-zone at a cost of $371,450.[16] Overall, the requirement to continue to provide water services to those that have chosen to remain in a hazard zone has been very costly for the Council.

It seems logical that the withdrawal of services is carefully planned, as part of the relocation programme, so that affected parties are clear from the outset what services they can expect to receive and at what cost. Legislative provision will need to be made for this. The prospective withdrawal of services can be used as an incentive to prompt reluctant residents to leave a risky area. However, there will need to be safeguards to ensure that services are not pre-emptively withdrawn from residents who lack the means to relocate. There will also need to be provision for responding to infrastructure damage due to a natural hazard event. In some cases it will not make financial sense to reinstate infrastructure, at high cost, to a community which is ultimately slated for managed relocation.

Recommendations on withdrawal of services

We recommend that the withdrawal of services be carefully planned as part of the relocation programme including what will happen if infrastructure is damaged during a natural hazard event.

Coastal erosion at Mokau Beach

Endnotes

1 Expert Working Group on Managed Retreat, 2023, *Report of the Expert Working Group on Managed Retreat: A proposed system for te hekenga rauora/planned relocation*, Expert Working Group on Managed Retreat, Wellington, 263

2 Expert Working Group on Managed Retreat, 2023, *Report of the Expert Working Group on Managed Retreat: A proposed system for te hekenga rauora/planned relocation*, Expert Working Group on Managed Retreat, Wellington, 128-129

3 Expert Working Group on Managed Retreat, 2023, *Report of the Expert Working Group on Managed Retreat: A proposed system for te hekenga rauora/planned relocation*, Expert Working Group on Managed Retreat, Wellington, 136 see Recommendation 29

4 Expert Working Group on Managed Retreat, 2023, *Report of the Expert Working Group on Managed Retreat: A proposed system for te hekenga rauora/planned relocation*, Expert Working Group on Managed Retreat, Wellington, 136

5 Sipe N and K Vella, 2014, 'Relocating a flood-affected community: Good planning or good politics?', *Journal of the American Planning Association,* 80(4), 400-412, 404

6 Okada T et al, 2014, 'Recovery and resettlement following the 2011 flash flooding in the Lockyer Valley', *International Journal of Disaster Risk Reduction,* 8, 20-31, 24

7 Okada T et al, 2014, 'Recovery and resettlement following the 2011 flash flooding in the Lockyer Valley', *International Journal of Disaster Risk Reduction,* 8, 20-31, 24

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10 Turner D, 2023, *Planned relocation case study report*, Rhelm, Neutral Bay, NSW, 5

11 Turner D, 2023, *Planned relocation case study report*, Rhelm, Neutral Bay, NSW, 3

12 *Quake Outcasts v Minister for Canterbury Earthquake Recovery and Ors* [2015] NZSC 27, [75]

13 Hayward M, 2019, 'Christchurch council spends $74k connecting water, sewerage to lone red one house', *Stuff*, 22 February

14 Mitchell C, 2017, '"Costly and inefficient" makeshift services for lonely red-zoned neighbourhoods', *Stuff*, 6 February

15 Christchurch City Council, 2018, 'Council offers to buy five red zone properties', *Newsline*, 12 March; Gates C and A Williams, 2021, 'Christchurch red zone stayers are now living in "paradise"', *Stuff*, 22 February

16 Gates C and A Williams, 2021, 'Christchurch red zone stayers are now living in "paradise"', *Stuff*, 22 February

9 Post-relocation land management

Coastal restoration at Tāhunanui Beach, Nelson

Once a relocation exercise has taken place, there is the issue of how the vacated land is to be managed. Managed relocation potentially creates significant opportunities for new innovative land uses, and restoration of indigenous habitats, particularly for habitat types which have been significantly modified such as floodplains and the coastal edge.

White, Urlich and Rennie (2023) have identified 29 potential options for repurposing newly claimed seascapes (flooded coastal land) including for aquaculture, fisheries, wetlands and/or blue carbon. One option was to use abandoned structures to create artificial reefs that provide additional fish nursey habitat and support more productive fisheries.[1]

In Working Paper 3, we described the lengthy and fraught process to determine the long-term management of red-zoned land along the Avon River in Christchurch. More than a decade after the quakes, the final management arrangements for the land have yet to be finalised. However, there have been many visionary ideas for future regeneration of the land, including the establishment of the Ōtākaro Living Laboratory to facilitate research and learning opportunities within the river corridor.[2]

Prior to its ultimate use, vacated land will need to be cleared, the titles amalgamated by Land Information NZ, and the land transferred to the ultimate owner (which could be council, mana whenua or a formally constituted community group). This process could be overseen by the National Adaptation Agency.

We suggest that the default classification of vacated land could be a new land classification of 'Climate Adaptation Reserve' under the Reserves Act. The designation would provide protection for land that might have few or no existing ecological values, but is important for the restoration of indigenous habitat and to enable species to move and adapt in response to loss of or changes to habitat.[3] Ownership of the land could be given to the council, or in trust to a local community group or iwi/hapū.[4] We have proposed some drafting for the new reserve classification to be inserted into the Reserves Act below.

Native plant nursery, Ōrakei Marae

Proposed drafting for addition to the Reserves Act

21A Climate adaptation reserves

(1) It is hereby declared that the appropriate provisions of this Act shall have effect, in relation to reserves classified as climate adaptation reserves, for the purpose of protecting areas for their potential to support or restore indigenous biodiversity and ecological processes, and to enable adaptation or evolution of indigenous biodiversity in response to natural or human-induced changes to the environment.

Where vacated land is held under Reserves Act, the council could be tasked with developing a 'regeneration plan' in collaboration with iwi/hapū/whanau and the community, and with support from the National Adaptation Agency. Alternatively, land could be declared Māori reserve land, in which case hapū would lead development of a regeneration plan with similar financial provision. Funding support for the implementation of the regeneration plan, including governance and management arrangements, could also be provided by the National Adaptation Fund.

Whangapoua estuary. Estuaries will be particularly affected by sea level rise and will need room to move inland.

Endnotes

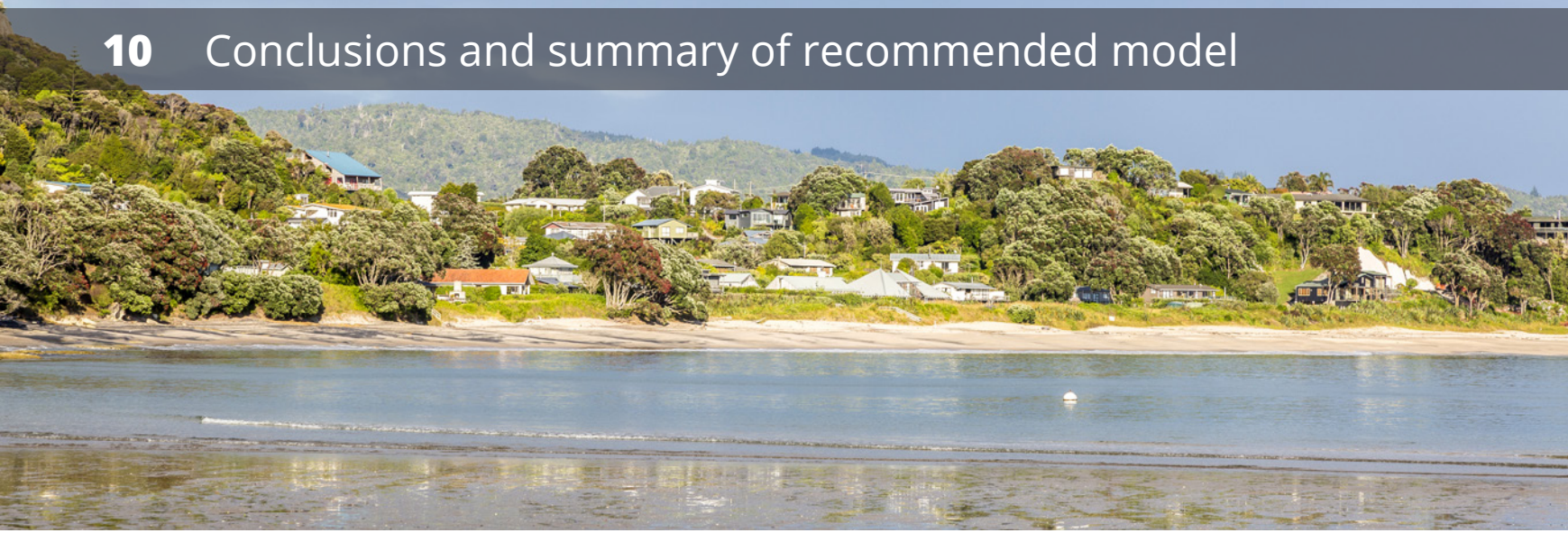
1 White F R, S C Urlich and H G Rennie, 2023, 'Newly-claimed seascapes: Options for repurposing inundated areas', *Global Environmental Change Advances*, 1, 100002

2 Peart R, B D Tombs and K Marshall, 2023, *Options and models for managed relocation policy: Working paper 3*, Environmental Defence Society, Auckland, 52-53

3 Harding M, 2023, *Advice on area designations within the terrestrial conservation system*, report prepared for the Environmental Defence Society, 25

4 See Section 26, Reserves Act 1977

10 Conclusions and summary of recommended model



Flaxmill Bay, Coromandel Peninsula

Aotearoa New Zealand faces an enormous challenge to successfully adapt to climate change. Due to the geography of the country, and location of settlements, sea level rise and more frequent and severe weather events will threaten thousands of homes and entire communities.

It is crucial that the country starts the adaptation process now and puts in place new and innovative tools and approaches required to successfully adapt. Merely tinkering with the current policy framework will not do the job. The model we have proposed in this report for managed relocation, and provisions for a new Climate Adaptation Act, represents a sound balance between pragmatism and making a difference. However, it must be emphasised that any policy change will require bi-partisan support to ensure it endures beyond electoral cycles.

In Figure 12 we have summarised the key elements of our recommended model.

Purpose and principles	Climate Adaptation Act has the prime purpose of reducing the risk of harm from natural hazards (including the effects of climate change) and includes a set of decision-making principles.
Identifying, assessing and communicating risk	Regional climate change risk assessments are regularly undertaken for all regions by regional expert panels overseen by the Climate Change Commission and linked to national risk assessments. Regional risk assessments to be made publicly available and provided to local authorities. Local risk assessments undertaken as part of local adaptation planning (see below) Regional risk assessments to be paid 'particular regard to' in all plan-making and consenting under the RMA, Building Act and Local Government Act.
Preventing development in risk prone areas	National Environmental Standards mandate that councils not grant subdivision or land use consent for a new hazard-sensitive development if it considers there is a high risk from natural hazards. In the event of conflict, the avoidance policies in the NZCPS and the National Policy Statement on Natural Hazard Decision-making take precedence over the National Policy Statement for Urban Development.

Preventing development in risk prone areas *(continued)*	RMA amended to enable existing use rights in high hazard areas to be reduced (with compensation). Territorial authorities required to regularly report on the number, type and total value of buildings located in areas subject to high natural hazard risk. Councils provided with a legislative shield against civil liability for negligently consenting homes in high-risk zones so long as specified criteria are met.
Undertaking adaptation planning	Broad statutory framework for adaptation planning provided in Climate Adaptation Act including purpose and mandatory content of local adaptation plans. Mandatory National Adaptation Direction supported by National Adaptation Guidance to address assessment of risk and adaptation options, composition of plan-making bodies, processes for preparing local adaptation plans, content of plans, and their implementation, monitoring and review. Plans initiated by territorial authorities on their own account, where the community is subject to a high natural hazard risk, where insurance withdrawal has occurred or where directed by the Minister. An iwi, hapū or whanau can initiate a Māori-led adaptation planning process at any time and seek Crown funding and technical support for it. Plans prepared by a plan-making body which includes (as a minimum) representation from the territorial authority, regional council, affected community, iwi/hapū and environmental interests. Minister may make additional appointments. All local adaptation plans must give effect to the National Adaptation Direction and take into account National Adaptation Guidance. Plans to be implemented through changing provisions in regional and district plans under the RMA, resource consenting under the RMA, long-term planning under the Local Government Act and relocation programmes (see below) when it comes time to relocate buildings and infrastructure. Local adaptation plans certified as compliant with national direction must be paid particular regard to in decision-making under other relevant legislation and could generate an adaptation overlay in RMA plans. Funding for preparation and implementation of local adaptation plans can be sought from a National Adaptation Fund. Specific part of National Adaptation Fund made available to iwi/hapū for their own adaptation planning. Priorities for allocation of funding from National Adaptation Fund set out in government policy statement or legislation. No central government funding made available for local or regional adaptation works without a local adaptation plan identifying such works as part of the preferred adaptation pathway.
Acquiring properties	Climate Adaptation Act provides powers of voluntary and compulsory acquisition of property for managed relocation with criteria for use. Act also provides a set of principles and framework for negotiating compensation when property is acquired. Māori land to be retained in Māori ownership.

Acquiring properties *(continued)*	National Adaptation Agency (or the territorial authority when a small number of properties are involved) handles compensation offers and purchase agreements. Compensation for residential buildings based on full market value with a cap on maximum amount ($300,000). Compensation for residential land based on provisions under the Natural Hazards Insurance Act. Compensation for businesses based on need. Compensation for iwi, hapū and Māori-owned property determined through case-by-case negotiations with a starting point of full compensation. Financial agreements reached with infrastructure providers to support infrastructure relocation and nature-based 'green' infrastructure. Funding available to councils to support managed realignment and other measures to support adaptation of nature (on a more generous basis than funding for hard defences). Grants available to support innovative responses to adaptation by councils, iwi/hapū/whanau and communities including piloting new approaches. Compensation and other funding support is sourced from a National Adaptation Fund.
Relocation and developing new settlements	Under the Climate Adaptation Act, the National Adaptation Agency develops detailed relocation programmes in collaboration with councils, iwi/hapū/whanau and the community and oversees their implementation. Service providers can withdraw services from areas being vacated, in accordance with the provisions of the relocation programme, and must remove all infrastructure once services are withdrawn and restore the site. Means tested financial support is provided to assist with relocation costs and temporary accommodation is made available for those needing it in transit between homes (which can later be repurposed as social housing). New land is purchased by the Crown, where needed, for the relocation of marae, papakāinga and taonga. Te Puni Kōkiri provides support for the relocation of Māori communities and associated buildings and taonga. Kāinga Ora is tasked with creating new communities under the Urban Development Act where needed. Where feasible, new sites are swapped for vacated sites by ballot, thereby enabling relocatable houses to be moved to safer locations and minimising losses.
Post relocation land management	National Adaptation Agency oversees land clearance, amalgamation of titles by Land Information NZ, and land transfer to the ultimate owner (which could be council, mana whenua or a formally constituted community group). New land classification in the Reserves Act, of Climate Adaptation Reserve, is the default classification of vacated land. Where land is held under Reserves Act, Council develops a regeneration plan for vacated land in collaboration with iwi/hapū/whanau and the community, and with support from the National Adaptation Agency. Provision is made for land to be declared Māori reserve land in which case hapū lead development of regeneration plan with financial support from the National Adaptation Agency.

Post relocation land management *(continued)*	Funding support for the implementation of the regeneration plan, including governance and management arrangements, provided from the National Adaptation Fund.
National Adaptation Agency	Administer the National Adaptation Fund Provide technical support for the preparation of local adaption plans and Māori-led adaptation planning Certify local adaptation plans Oversee the development of relocation programmes Undertake the managed relocation process

Figure 12: Key elements of recommended model

Coastal erosion at Buffalo Beach, Whitianga

11 Recommendations and drafting

Eroded dunes at Pukehina Beach

Proposed purpose of the Climate Adaptation Act

Purpose of this Act

The purpose of this Act is to reduce the risk of harm to people and the wider environment from natural hazards through:

(a) enabling people and communities to adapt effectively to natural hazard risks; and

(b) facilitating the relocation of people and physical structures away from areas subject to high natural hazard risk; and

(c) discouraging urban development in areas of high natural hazard risk–

and in doing so–

(d) avoiding and alleviating hardship caused by the risk and impacts of natural hazards; and

(e) supporting the mana of iwi and hapū; and

(f) increasing the resilience of indigenous species and habitats to climate change; and

(g) minimising the long-term societal costs of natural hazards.

natural hazard—

(a) means any atmospheric or earth- or water-related occurrence (including flooding, earthquake, tsunami, erosion, volcanic and geothermal activity, landslip, subsidence, sedimentation, wind, drought or fire) the action of which adversely affects or may adversely affect human life, property, or other aspects of the environment; and

(b) includes the effects of climate change on any of those occurrences

Urban development*– has the meaning given in section 10(1) of the Urban Development Act 2020*

Proposed drafting of decision-making principles

Decision-making principles

Every person who performs any function or exercises any power under this Act must–

(a) give effect to the principles of Te Tiriti o Waitangi; and

(b) use the best available information; and

(c) adopt efficient, fair, open and transparent processes; and

(d) ensure fairness and equity in how the exercise of that function or power impacts individuals and communities, including across generations; and

(e) support communities to effectively shape decisions that affect their futures; and

(f) work with iwi and hapū to establish structures that enable iwi and hapū to effectively input into decision-making processes; and

(g) ensure social and cultural connections to community and place are maintained as much as possible; and

(h) prioritise the use of nature-based solutions and protection of the natural environment.

Recommendations on regional climate change risk assessments

Amend the Climate Change Response Act to provide for mandatory regional climate change risk assessments undertaken by regional expert panels (with a wide range of relevant skills, including mātauranga Māori) appointed and overseen by the Climate Change Commission.

Require regional risk assessments to be made publicly available, to be provided to local authorities, and for decision-makers under the RMA, Building Act and Local Government Act to have particular regard to them where relevant.

Recommendations on national policy for natural hazard consenting

Strengthen and promulgate the National Policy Statement for Natural Hazard Decision-making.

In particular, delete clause 1.5 of the proposed National Policy Statement for Natural Hazard Decision-making which provides that it does not apply to the preparation of intensification planning instruments under the RMA.

At the same time promulgate National Environmental Standards for Natural Hazard Consenting which should state

(2) A consent authority shall not grant a subdivision consent or a land use consent for a new hazard-sensitive development if it considers there is a high risk to that development from natural hazards within the next 100 years.

***new hazard-sensitive development** has the meaning given by the National Policy Statement on Natural Hazard Decision-making.*

Add new provisions to the National Policy Statement for Urban Development after clause 1.3 (a new clause 1.3A) as follows:

(3) The provisions of the New Zealand Coastal Policy Statement prevail over the provisions of this National Policy Statement if there is a conflict between them.

(4) The provisions of the National Policy Statement on Natural Hazard Decision-making prevail over the provisions of this National Policy Statement if there is a conflict between them.

Recommendations on existing use rights in hazard areas

Include in Section 10 (Certain existing uses in relation to land protected) of the RMA:

(3A) Despite subsection (1), an existing use of land must comply with a plan rule that relates to the following, as far as they are relevant, but only if the plan expressly provides that this subsection applies:

(a) the avoidance, reduction, or mitigation of the risks associated with natural hazards; and

(b) adaptation to climate change.

Insert a new section (3E) into section 85 which states:

(3E) If an offer to acquire the relevant estate or interest in the land or part of it—

(a) is accepted, the local authority is responsible for implementing the acquisition under the Public Works Act 1981, including meeting the costs of the acquisition; and

(b) is not accepted, the provision in the plan remains in force unaffected or, if not already in force, comes into force without modification.

Recommendations on council duties to monitor and record natural hazards

Amend section 35 of the RMA as follows:

35 Duty to gather information, monitor, and keep records

(5) The information to be kept by a local authority under subsection (3) shall include—

...

(j) records of natural hazards and the number, type and total value of buildings located in areas subject to high natural hazard risk ~~to the extent that the local authority considers appropriate for the effective discharge of its functions~~; and

Recommendations on council liability

We recommend that a legislative liability shield be provided to councils when consenting development in areas affected by natural hazards, but only when specified criteria are met including obtaining scientifically robust information, communicating that information to affected parties and putting in place credible measures to manage natural hazard risk.

Recommendations on legislative provision for local adaptation planning

We recommend the Climate Adaptation Act provides only a broad framework for local adaptation planning with more detail set out in mandatory National Adaptation Direction and accompanying National Adaptation Guidance. A separate (and more flexible) process, which can accommodate local tikanga, should be provided for Māori-led adaptation planning. As knowledge of climate risks improves, and experience with local adaptation planning develops, the National Adaptation Direction and Guidance can be updated and strengthened without the need for legislative change.

Proposed drafting for national adaptation direction

National adaptation direction

(3) There must at all times be national adaptation direction.

(4) The purpose of national adaptation direction is to achieve the purpose of this Act by providing direction on–

(i) methodologies for undertaking natural hazard risk assessments; and

(j) methodologies for identifying and assessing adaptation options; and

(k) the composition of local adaptation plan-making bodies; and

(l) processes for preparing local adaptation plans; and

(m) content of local adaptation plans; and

(n) implementation of local adaptation plans; and

(o) monitoring and review of local adaptation plans; and

(p) any other matters related to the purpose of this Act.

Proposed drafting for purpose of local adaptation plans

Purpose and scope of local adaptation plans

*(3) The purpose of a local adaptation plan (a **plan**) is to achieve the purpose of this Act by identifying natural hazard risks affecting an area over at least a 100-year period and specifying preferred response pathways to those natural hazard risks.*

(4) A plan must:

(i) specify the area to which it applies; and

(j) not be inconsistent with any provisions in a national adaptation plan made in accordance with Section 5ZS of the Climate Change Response Act 2002; and

(k) give effect to national adaptation direction; and

(l) take into account any national adaptation guidance; and

(m) pay particular regard to any Māori-led adaptation plans applicable to the area; and

(n) provide for the well-being of iwi and hapū in the area; and

(o) provide for the well-being of the communities of the area; and

(p) Support the ability of indigenous species and habitats to adapt to climate change.

Proposed drafting for content of local adaptation plans

Contents of local adaptation plans

(2) A plan must–

(i) identify all natural hazard risks within the area over at least a 100 year time period including compounding and cascading risks; and

(j) identify all reasonably practical measures to adapt to those natural hazard risks including managed alignment and managed relocation; and

(k) assess the social, cultural, environmental and economic impacts of each measure identified; and

(l) state the preferred package of adaptation measures; and

(m) identify any trigger points for implementing those adaptation measures; and

(n) state the intended response if a natural hazard event occurs prior to those adaptation measures being implemented; and

(o) identify responsibilities for implementing measures identified in the plan; and

(p) set out a monitoring and review framework for the plan.

***Managed realignment** means the removal of all or part of an engineered protection or drainage structure to enhance natural habitat and/or natural defences.*

***Managed relocation** means the planned and coordinated movement of people and structures away from areas subject to high natural hazard risks.*

Proposed drafting for preparation of local adaptation plans

Preparation, change and review of local adaptation plans

(9) A plan may be prepared or amended at any time.

(10) A territorial authority must initiate the preparation of a plan–

(d) where a high natural hazard risk affecting its community (whether now or in the future) is known to the territorial authority and no plan applies to the area subject to the risk; or

(e) where residential property insurance cover is no longer available for part or all of its community due to the level of natural hazard risk; or

(f) when directed by the Minister.

(11) On initiating the preparation of a plan the territorial authority must establish a plan-making body.

(12) A plan-making body must include representation from:

(f) the territorial authority; and

(g) the regional council; and

(h) the affected community; and

(i) iwi and/or hapū with interests within the plan area; and

(j) environmental interests.

(13) Any local authority with jurisdiction over part or all of the plan area may appoint a representative for inclusion on the plan-making body.

(14) The Minister may make additional appointments to the plan-making body.

(15) Before adopting or amending a plan the plan-making body must establish a process that—

(e) gives effect to national adaptation direction; and

(f) takes into account national adaptation guidance; and

(g) promotes inclusion and a collaborative approach to plan-making; and

(h) gives affected parties, the public, local authorities, central government agencies and iwi and hapū authorities adequate time and opportunity to meaningfully contribute to the development of the plan.

(16) A plan must be reviewed:

(e) if there is significant new information about climate change risk affecting the area which is outside the scope of the plan; or

(f) if monitoring indicates that the measures in the plan are unlikely to reduce the natural hazard risks affecting the community to tolerable levels; or

(g) if a measure set out in the plan is unlikely to be implemented due to legal, technical or financial reasons; or

(h) if the plan has not been reviewed during the past 10 years.

Recommendations on implementation of local adaptation plans

We recommend that local adaptation plans be implemented through changing planning provisions under the RMA (including future development strategies), resource consenting, long-term planning under the Local Government Act (including infrastructure and financial strategies), accessing funding from the National Adaptation Fund and preparation of relocation programmes. The plans should also be given statutory weight in other decision-making processes if certified as compliant and could automatically generate an 'adaptation overlay' in RMA plans.

Recommendations on funding adaptation

- We recommend that government establishes a National Adaptation Fund, to be capitalised from a specific levies, general taxation or both.
- The Fund should be used to provide councils and iwi/hapū/whanau with financial support to undertake local adaptation planning as well as to implement the plans.
- A regularly updated Adaptation Funding Policy could set out priorities for expenditure of the Fund. Alternatively these could be hard-wired into the Climate Adaptation Act.
- No government funding for adaptation works (including seawalls and stop banks) should be provided unless a compliant local adaptation plan has been prepared and it identifies such works as part of the preferred adaptation pathway.

Proposed drafting for land acquisition powers

[X] Acquisition of land

(6) The Minister is hereby empowered to acquire under this Act any land subject to a relocation programme.

(7) Every local authority is hereby empowered to acquire under this Act any land subject to a relocation programme for which it has responsibility.

(6) The Minister or local authority may enter into an agreement to purchase any land subject to a relocation programme for which the Crown or local authority, as the case may be, is responsible.

(9) The Minister or local authority may acquire land subject to a relocation programme compulsorily for which the Crown or local authority, as the case may be, is responsible but only subject to section [XX].

(10) Where any land is acquired by the Crown or the local authority under this Act, compensation is payable in accordance with Part [X] of this Act.

[XX] Compulsory acquisition of land

(4) Notwithstanding section [X](4) Māori land may not be compulsorily acquired under this Act.

(5) Land may only be compulsorily acquired in accordance with any applicable relocation programme.

(6) When compulsorily acquiring land under this Act, the acquisition must be carried out in accordance with sections 23, 24, 25 and 26 of the Public Works Act 1981 (Process for notice, objection and hearing by Environment Court) which applies with all necessary modifications.

***Māori land** – has the meaning given in section 4 of the Te Ture Whenua Māori Act 1993.*

Proposed drafting for purpose of adaptation compensation

Purpose of adaptation compensation

The purpose of adaptation compensation is to achieve the purpose of this Act by:

(f) alleviating hardship caused by managed relocation away from areas subject to high natural hazard risk; and

(g) supporting people to re-establish homes and businesses in safe locations; and

(h) alleviating the impacts of natural hazard risks on Māori rights and interests; and

(i) incentivising participation in managed relocation; and

(j) incentivising sound long-term investment decisions concerning natural hazard risk.

Recommendations on public compensation scheme

We recommend the Expert Working Group's proposals on a public compensation scheme be used as a starting point to enshrine a compensation scheme in the Climate Adaptation Act in a similar manner to part 2 of the Natural Hazards Insurance Act which clearly sets out natural hazard cover and entitlements. A carefully tailored approach will be needed for Māori-owned land.

Recommendations on insurance

We recommend that further work be undertaken on the interface between insurance and managed relocation including the option of Government stepping in when private insurance cover is not available. Incentivising risk reduction actions through offering insurance premium discounts should also be considered.

Recommendations on National Adaptation Agency

We recommend that a national agency be established, which we have provisionally called the National Adaptation Agency, to oversee managed relocation processes around the country. The Agency should house a specialist team tasked with supporting iwi, hapū and whānau to plan and undertake climate adaptation.

Recommendations on relocation programmes

We recommend that a relocation programme be developed before managed retreat is undertaken in any particular locality. The process should be overseen by the National Adaptation Agency, which will be charged with managing the implementation of the programme, but with close local involvement. It should be approved by the Minister before implementation.

Recommendations on powers to implement relocation programmes

We recommend that the powers to implement relocation programmes be provided for in primary legislation with the relocation programmes setting out the actions to be undertaken, their timing and responsibilities for undertaking them.

Proposed drafting for content of relocation programmes

Contents of relocation programmes

A relocation programme must identify–

(a) the properties and assets which will be subject to relocation; and

(b) the timing of relocation including the final date for vacating properties and circumstances when early vacation may be required; and

(c) any properties which are intended to be publicly acquired; and

(d) any financial or other assistance which will be made available to affected parties; and

(e) the nature and timing of any intended withdrawal of services; and

(f) responsibilities for removal of any remaining buildings and infrastructure; and

(g) how any vacated land will be managed including any lease agreements or conditions around land use; and

(h) how ongoing cultural and social associations with the vacated area will be supported; and

(i) how indigenous habitat restoration will be promoted; and

(j) how kaitiakitanga opportunities for mana whenua will be supported; and

(k) responsibilities for implementing measures identified in the programme; and

(l) a monitoring and review framework for the programme.

***Managed relocation** means the planned and coordinated movement of people and structures away from areas subject to significant natural hazard risks.*

Recommendations on process for preparation of relocation programmes

We recommend that public submissions and hearings on draft relocation programmes be provided for before finalisation.

Proposed drafting for amendment of the Urban Development Act

3 Purpose of this Act

(2) The purpose of this Act is to facilitates urban development that contributes to sustainable, inclusive, safe, and thriving communities.

***Safe** means not exposed to significant danger or risk.*

Recommendations on withdrawal of services

We recommend that the withdrawal of services be carefully planned as part of the relocation programme including what will happen if infrastructure is damaged during a natural hazard event.

Proposed drafting for addition to the Reserves Act 1977

21A Climate adaptation reserves

(2) It is hereby declared that the appropriate provisions of this Act shall have effect, in relation to reserves classified as climate adaptation reserves, for the purpose of protecting areas for their potential to support or restore indigenous biodiversity and ecological processes, and to enable adaptation or evolution of indigenous biodiversity in response to natural or human-induced changes to the environment.

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Aotearoa New Zealand faces an enormous challenge in successfully adapting to climate change. Due to the geography of the country, and location of settlements, sea level rise and more frequent and severe weather events will threaten thousands of homes and entire communities. It is essential that the country starts to adapt now and this will require new and innovative tools and approaches.

In June 2022, the Environmental Defence Society commenced a project titled 'Aotearoa New Zealand's Climate Adaptation Act: Building a Durable Future' to develop recommendations for the content of a new Climate Adaptation Act. This was in response to government stating that it would develop new law to address the complex and distinctive issues associated with managed retreat including funding, compensation, land acquisition, liability and insurance.

This final report for the project builds on the foundations established by three earlier working papers and sets out concrete recommendations for the design of the Climate Adaptation Act in order to provide a robust framework for managed retreat.

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