



Local Government and Institutional Arrangements

Climate Change Adaptation – Governance, Funding
and Delivery

11 October 2023

B&A

Urban & Environmental

Prepared for:
New Zealand Climate Change Commission

B&A Reference:

20242

Status:

Final Report

Date:

30 October 2023

Prepared by:



Briar Belgrave
Partner



Ruth Evans
Senior Associate



Katherine Hu
Senior Planner & Urban Designer



Fern Beck
Senior Planner

Contents

1.0	Executive Summary	5
2.0	Introduction	6
3.0	Research Question	6
4.0	Scope of the Report	7
5.0	Research Methodology	8
5.1	Outline of Process and Data Sources	8
5.2	Limitations of the research	9
6.0	Relevant Legislation, Policies and Guidance	9
6.1	Climate Change Response (Zero Carbon) Amendment Act 2019	9
6.2	Resource Management Act 1991	10
6.3	New Zealand Coastal Policy Statement	10
6.4	Local Government Act 2002	10
6.5	Building Act 2004	11
6.6	Civil Defence and Emergency Management Act 2002	11
6.7	National Adaptation Plan	11
6.8	Coastal Hazards and Climate Change Guidance for Local Government 2017	12
7.0	Resource Management Act Reforms	12
7.1	Natural and Built Environment Act 2023	13
7.2	Spatial Planning Act 2023	13
7.3	Climate Change Adaptation Act	14
8.0	Key Findings and Themes from Literature	14
8.1	The current system and framework	14
8.2	Specific Themes	15
9.0	Key findings and themes from interviews	18
9.1	Academics and other experts	18
9.2	Local government representatives	25
9.3	Key findings from the interviews	36
10.0	Conclusion	39
11.0	Bibliography	40

Appendices

- Appendix 1: Literature Review
- Appendix 2: Interview questions – academic and policy experts
- Appendix 3: Interview questions – local government

1.0 Executive Summary

This report has been prepared to explore governance, funding and delivery arrangements in relation to climate change adaptation action, with a particular focus on local government. It is part of a wider body of work that the Climate Change Commission is undertaking to inform their monitoring of the National Adaptation Plan.

This research has been informed by a mix of literature review and interviews with academic, policy and local government staff involved in climate change adaptation planning.

Key areas of focus in relation to adaptation planning traversed in this report are:

- Governance, funding and delivering arrangements
- Ability to make risk informed decisions within the current framework
- How the resource management and other reforms might impact the role of local government in delivering adaptation action
- Key barriers and opportunities for improved climate change adaptation

In terms of the current legislative framework, as well as national policy and guidance, there are various acts and other documents that can inform and/or influence adaptation planning, however there is no specific legalisation or national policy that mandates adaptation. Nor is there a framework or funding regime. In terms of the resource management reforms, the key piece of relevant legislation, the Climate Change Adaptation Act, has been delayed and therefore there is still a significant gap with respect the how adaptation is addressed in the resource management reforms.

Reviewed literature outlines that the current legislative arrangements do not provide a clear enough structure to enable the delivery of effective and coordinated adaptation planning and political risk and community attitudes are a barrier. There is a role for Mātauranga Māori, and local government does not have the financial capability to meaningfully engage on and deliver adaptation action.

In terms of key findings from interviews conducted as part of this research, the importance of this work was well understood, however currently there are a number of significant barriers to planning for and delivering climate adaptation action. It was generally considered that it is difficult for councils to make risk informed decisions within the current framework, with reasons including a lack of mandate in the legislation, and lack of technical evidence and resourcing. Political decision making and concern around litigation was also seen as a constraint in making risk informed decisions. The missing piece of the reforms, being the Climate Change Adaptation Act was seen as a significant issue by many, as without this the mandate to do adaptation planning and the supporting framework and funding is still an unknown. The challenge of funding adaptation planning and implementation remains a critical barrier. It was generally agreed the local government should lead local adaptation planning, but this needs support from central government in all areas, including funding, technical advice, resourcing (capacity and capability) and a robust framework. Until such time as these issues are progressed and an integrated way forward is developed, local government will continue to face significant challenges in climate adaptation planning and implementation.

2.0 Introduction

In 2019 the Climate Change Response (Zero Carbon) Amendment Act ('the Act') was passed into law to provide a framework by which New Zealand can develop and implement clear and stable climate change policies that allow New Zealand to prepare for, and adapt to, the effects of climate change. The Act establishes the Climate Change Commission ('the Commission') with a purpose of providing independent, expert advice to the New Zealand Government on mitigating and adapting to the effects of climate change, and to monitor and review the Government's progress towards its emission reduction and adaptation goals.

New Zealand Government delivered its first National Adaptation Plan ('NAP') in 2022 and the Commission is required to publish its first report on the progress of the NAP, including its implementation and effectiveness, in 2024. As part of this body of work, the Commission seeks to conduct analysis of the governance, funding and delivery arrangements which support effective adaptation action, with a particular focus on local government.

This report has been prepared to explore:

- New Zealand's current adaptation governance, funding and delivery arrangements, with a particular focus on institutional arrangements and the adaptation relevant role/s and responsibilities of local government;
- the extent to which local government is currently able to make risk informed planning and land use decisions, within existing legislative frameworks;
- how resource management and other reforms (including post-Cyclone Gabrielle response), as well as other planned actions outlined in the NAP, might impact the role of local government in delivering adaptation action; and
- key barriers and opportunities for improved climate adaptation, with a particular focus on local government.

3.0 Research Question

The guiding research question this report seeks to explore is:

"What are the key barriers that need to be addressed to ensure that governance, funding, and delivery arrangements support the delivery of adaptation action, with a focus on local authorities".

In addressing the research question and within the context of this report, we have defined the key terms as follows:

- 'Governance' includes the roles, responsibilities and jurisdictions of all three levels of central, regional and local governments in New Zealand, as well as any governmental institution of mana whenua and tanga whenua. It also includes the systematic and hierarchical setting and structure of these governments, as well as their relationships and integrations under such settings and structures.
- 'Funding' means any system, framework, scheme, process, source and allocation of any financial compensation and costs for the purpose of the adaptation actions.

- ‘Delivery arrangements’ include all forms and types of delivery, implication and implementation frameworks, policies and actions, examples including, but not limited to, Civil Defence Emergency Management Framework, asset management plans, land use planning and zoning and land acquisition, relocation subsidies and land swaps. It also includes other relevant delivery and implementation matters, such as the timeframe for such implementations and the parties to deliver and implement them (the ‘when’ and the ‘who’ for such delivery arrangements).

4.0 Scope of the Report

This research is focussed on identifying key barriers to adaptation action, with a particular focus on the role of local government and the legislative framework within which it operates. It will contribute to the Commission’s wider research programme, which includes building an understanding of whether governance, funding and delivery arrangements will support the delivery of effective adaptation action under the NAP.

Climate change adaptation involves extensive complex issues, and as such, it is difficult to limit the scope of the research question to the governance, funding and delivery arrangements aspects as abovementioned only. It is noted that these matters are also intertwined. The scope of the research is limited to:

- Key considerations for institutional and governance arrangements to support effective adaptation, focusing on local government roles, responsibilities, funding and delivery arrangements;
- New Zealand adaptation governance, funding and delivery arrangements, including future governance and delivery arrangements in the NAP and consideration of post-cyclone developments and RMA reforms; and
- Key local government barriers and opportunities to effective adaptation governance including potential responses/solutions.

This report has not undertaken further research and/or analysis of the following matters, although it is acknowledged that the occasional comment is made on these topics throughout the report:

- The complexity, changing nature and uncertainties of climate change as an international and national scientific, social, cultural and environmental topic;
- The political, legal, social and economic complications of climate change;
- The nature of individual preferences, opinions and attitudes, conflicting ethical principles and considerations on climate change; and
- The priorities, weighting and relationship between climate change and all other social, cultural, environmental and economic topics.

5.0 Research Methodology

5.1 Outline of Process and Data Sources

In responding to the research question, this report draws on a range of international and national sources, both written and oral.

5.1.1 Literature Review

The first step involved a review of the existing New Zealand governance and legislative frameworks for climate change adaptation.

The second step involved a review of literature and resources relevant to the challenges, mechanisms and practices of climate change adaptation. Literature and resources include journal articles, reports of interested groups and organisations, governmental agencies, policy papers by department officials, submissions on various governmental policy proposals and commissioned research. Firstly, a list of articles and reports identified and provided by the Commission, and the Randerson Report¹ were reviewed. A secondary sieve of other additional literature and resources was undertaken afterwards and included as relevant to supplement the initial review. A full list of reviewed literature, papers and reports is included in **Appendix 1**.

5.1.2 Interviews

Four interviews with policy experts and academics were completed and nine interviews across seven local councils were completed. The interviewees were selected based on their extensive knowledge, understanding and practical experiences in relation to climate change adaptation in New Zealand. Local government interviewees were also selected to ensure a good cross section of unitary, regional and district councils, and councils across New Zealand with different revenue ratings bases. **Appendix 2** includes the questions asked of policy experts/academics and **Appendix 3** includes the questions ask of local government staff. The questions for the interviews were specifically tailored for this research in relation to climate change adaptation and the responsibilities, roles and challenges of the local government in New Zealand. These questions will also assist in ensuring consistent and robust analysis of findings. All interviews were conducted in an online format and were generally over an hour long.

5.1.3 Summarising and analysing key findings

The last step of this research involved summarising key findings of the literature review and interviews. This report contains analysis and discussion in relation to the following discussion points:

- Institutional and governance arrangements and effective adaptation;
- RM reforms and other NAP actions;
- Local government and risk-informed planning decisions;
- Key barriers and opportunities to effective adaptation governance; and

¹ The Randerson Report, titled 'New Directions for Resource Management in New Zealand is a broad ranging and inclusive review of the resource management system in New Zealand completed in July 2020.

- Potential responses/solutions to achieving the NAP, with a specific focus on local government adaptation planning.

5.2 Limitations of the research

There have been a number of assumptions made and limitations associated with the preparation of this report as set out below:

- **Timeframes:** This report has been prepared within a period of approximately 10 weeks. Due to this limited timeframe, limited literature searching and reviews, and interviews have been able to be undertaken. To overcome this limitation, snowball searches were undertaken to supplement the review.
- **Information sources:** This report has been prepared on the basis of reputable publicly available information that was accessible between the period of July 2023 to September 2023 and information provided by the Commission Project Team. The accuracy and findings of this report are limited to this information, of which no quality assurance has been undertaken as part of this research. Additionally, the report captured information and discussions, both written and oral, at a point in time. It is understood that such information and views may change and/or be updated in the future. It is also acknowledged that the number of people interviewed is limited to 13, which is only a small sample of local government in New Zealand. During the interviews participants suggested numerous other experts, local government staff and consultants who would hold valuable information on this topic, however timeframes and resourcing have not allowed for additional interviews to be completed. It is noted that during the interviews that were conducted, a number of common key themes have emerged.

6.0 Relevant Legislation, Policies and Guidance

In delivering adaptation action, a range of legislation, regulations, national direction and guidance documents need to be considered. An overview of key documents is set out below. Legislation arising from the Resource Management Act reforms is discussed in Section 7.0.

6.1 Climate Change Response (Zero Carbon) Amendment Act 2019

The Climate Change Response (Zero Carbon) Amendment Act establishes the Commission and requires a National Climate Change Risk Assessment ('NCCRA') be prepared once every six years as well as a NAP in response to the NCCRA.

The most recent risk assessment was published in 2020 and gives a national picture of how New Zealand may be affected by climate change-related natural hazards as well as identifies the most significant risks and opportunities. This document combines findings from Māori/iwi and stakeholder engagement with scientific, technical, and expert research. The NCCRA identifies numerous risk areas requiring action, several of which relate to the risk of sea level rise. In particular, the effects of climate change on coastal ecosystems due to ongoing sea level rise and extreme weather events is identified as one of the most significant risks.

In response to the NCCRA, the first NAP was published in 2022 which sets actions to enable New Zealand to adapt to those climate change risks identified. Notably this NAP seeks to enable better

risk informed decisions, encourage climate resilient development in the right location, and explore adaptation options such as managed retreat.

6.2 Resource Management Act 1991

The Resource Management Act 1991 ('RMA') is the legislation which sets out how we should manage our environment. The RMA regulates land use and how infrastructure is provided for. The RMA seeks to manage the natural and physical environment through 'effects management', which manages the effects of activities rather than the activities themselves (Lawrence et al, 2021).

In relation to the delivery of adaptation planning, the RMA provides for the management of significant risks from natural hazards as a Section 6 matter of national importance. In addition, the effects of climate change are provided for in Section 7 which sets out other matters to be considered.

On a practical level, environmental management under the RMA utilises a tiered planning approach. Through this, planning instruments at national, regional, and local levels create policies and rules to achieve sustainable and integrated resource management at their respective levels (Birdsong, 2002).

The RMA has undergone significant reform over the last three years and will be replaced with two new pieces of legislation. This is discussed further in Section 7.0 below.

6.3 New Zealand Coastal Policy Statement

National Policy Statements ('NPS') are developed under the RMA and enable Government to set objectives and policies for nationally significant matters. To date, six NPS have been issued, which guide decision-making under the RMA at a national, regional and district level. Current NPS will remain relevant through the resource management system reforms however will be merged into a new 'National Planning Framework' under the Natural and Built Environment Act (refer to Section 7.0 below).

Relevant to the delivery of adaptation planning is the New Zealand Coastal Policy Statement 2010 ('NZCPS'). This document recognises that climate change will exacerbate coastal erosion and other natural hazards within the coastal environment which is a particular threat to existing infrastructure, public access and other coastal values. The NZCPS adopts a precautionary approach towards the management of the coastal environment, in particular, in areas where coastal resources are potentially vulnerable to effects from climate change. In terms of adaptation planning, it is noted that the NZCPS predates the NCCRA and the NAP.

6.4 Local Government Act 2002

The Local Government Act 2002 ('LGA') sets out the general framework and powers under which local authorities operate. The LGA requires that local government utilises a sustainable development approach which takes into account the need to maintain and enhance the quality of the environment and the social, economic, and cultural well-being of people and communities.

Section 93 of the LGA sets out the requirement and framework under which local authorities must prepare Long Term Plans, which are a comprehensive statement of intentions for a 10-year period. Section 101B requires local authorities to adopt an infrastructure strategy which identifies any significant infrastructure issues for the next 30 years, and the principal options for managing those

issues. In addition, the infrastructure strategy must outline how a local authority intends on managing its assets, in particular, to provide for resilience and the management of risks relating to natural hazards.

6.5 Building Act 2004

The Building Act 2004 ('BA') provides regulations for building work and sets performance standards for buildings in New Zealand. The Building Code sits within the BA and sets out the rules for the construction, alteration, demolition and maintenance of new and existing buildings. The purpose of the BA and Building Code is to ensure buildings are safe, healthy and durable for everyone who uses them².

In relation to the delivery of adaptation action and the associated management of natural hazards, under sections 71-74, the BA sets out limitations and restrictions of construction on land subject to natural hazards, including coastal hazards such as erosion and inundation. In addition, the BA also enables Territorial Authorities to restrict entry into building that are dangerous, affected or insanitary under Section 124. Further, the BA sets standards for minimum floor heights for flooding that are relevant to adapting to climate change and natural hazard risk management.

6.6 Civil Defence and Emergency Management Act 2002

The Civil Defence and Emergency Management Act 2002 ('CDEM') seeks to improve and promote the sustainable management of hazards. Section 3 of the Act sets out its purpose which includes improving and promoting the sustainable management of hazards to contribute to the social, economic, cultural, and environmental well-being and safety of the public and also to the protection of property. It also seeks to encourage and enable communities to achieve acceptable levels of risk. The CDEM provides broad powers to respond to emergencies.

6.7 National Adaptation Plan

The NAP responds to the risks identified in the NCCRA. The government published their first NAP in 2022, and as the first of its kind in New Zealand, this iteration focuses on laying the foundations and setting out what actions need to be undertaken to "enable better risk-informed decisions, drive climate-resilient development in the right locations, help communities assess adaptation options (including managed retreat) and embed climate resilience into all of the Government's work" (MfE, 2022, p.2). As well as these 'system wide' issues, the NAP also identifies actions to address risks across five 'outcome areas' that are broadly aligned with the NCCRA domain areas – the natural environment; homes, buildings and places; infrastructure; communities; and economy and financial.

The national adaptation plan is intended to be implemented by a range of agencies, departments and ministries. The NAP acknowledges that local government is at the centre of risk management planning as hazard events typically occur at a local or regional scale.

One action set out in the NAP is for central government to support local government to be able to consider adaptation in planning and decisions, this includes by providing guidance on communicating scientific and technical information to communities, and on making climate

² There is an action in the NAP to update the building regulatory system to reflect future climate hazards.

decisions. In addition to this, central government intends to review the role of local government to ensure that it is equipped to make decisions that support adaptation action.

6.8 Coastal Hazards and Climate Change Guidance for Local Government 2017

The Ministry for the Environment ('MfE') have released a number of guidance documents and publications which seek to assist local authorities, planners and the public with resource management as well as understand and implement policies, plans and documents that sit within the RMA framework.

This specific piece of guidance has been prepared to assist local government in assessing, planning, and managing the increasing risks facing coastal communities. In particular, the document seeks to enable local government to support the adaptation of coastal communities and council assets and services to respond to increasing coastal hazard risks resulting from climate change. In addition, this document supports the implementation of relevant objectives and policies in the New Zealand Coastal Policy Statement 2010.

This guidance document puts forward a risk-based, adaptive management framework that incorporates Dynamic Adaptive Policy Pathways ('DAPP') to respond to the uncertainty that exists when considering the effects of climate change. Key elements of monitoring and review needed to support adaptive pathway planning approaches are also set out as well as how these contribute to adjustments of the adaptation plan.

In addition, the guidance places community, stakeholder and iwi/hapū engagement at the centre of decision-making processes for coastal hazard management and provides a framework for this engagement.

Summary:

- There are a number of acts, plans, policy and guidance that can inform/influence adaptation planning in NZ. For example, the RMA requires management of significant risk from natural hazards and that particular regard is given to the effects of climate change; the Climate Change Response (Zero Carbon) Amendment Act requires the preparation of a NCCRA and NAP; and the MfE DAPP guidance provides an adaptive management framework.
- There is currently no legislation or national policy that mandates adaptation planning in terms of setting out legal requirements, and a framework that includes funding mechanisms. This means that overall, local government lacks agency to comprehensively progress adaptation planning. This legislation/policy gap has been recognised by Central Government is intended to be addressed as part of the resource management reforms (see next section).

7.0 Resource Management Act Reforms

The Government has carried out a significant reform of the resource management system over recent years. Two key pieces of legislation – The Natural and Built Environment Act and Spatial Planning Act, are now in effect which will replace the RMA. The new legislation came into effect on 24 August 2023 and will gradually be phased in over about a 10-year period.

7.1 Natural and Built Environment Act 2023

The Natural and Built Environment Act ('NBA') is the main replacement for the RMA, and intends to protect and restore the environment while better enabling development. The NBA introduces new environmental outcomes and national direction for natural hazards and climate change. Notably, Section 6 of the Act sets out system outcomes which establish what must be achieved at both national and regional levels and includes:

- (3) *In relation to climate change, —*
 - (a) *greenhouse gas emissions are reduced to assist New Zealand to meet the target set under section 5Q of the Climate Change Response Act 2002; and*
 - (b) *greenhouse gases are removed from the atmosphere.*
- (4) *The risks arising from natural hazards and the effects of climate change are reduced and other measures are taken to achieve an environment that is more resilient to those risks.*

The NBA also introduces a National Planning Framework which will bring together current national direction (national policy statements and national environmental standards) and add extra content which will be rolled out over the coming years. This Act works alongside the Spatial Planning Act, which creates new requirements for long-term regional spatial planning.

The transition to the NBA will take approximately 10 years with the RMA continuing to be the primary legislation in each region until its first Natural and Built Environment Plan comes into effect.

7.2 Spatial Planning Act 2023

The Spatial Planning Act 2023 ('SPA') was passed into law in August 2023 and alongside the NBA will replace the RMA. The purpose of the SPA aligns with the system outcomes set out in Section 6 of the NBA and includes those matters set out in section 7.1 of this report above.

The SPA requires each region to develop a regional spatial strategy ('RSS') that sets out the long-term issues, opportunities and challenges for development and the environment in the region. An RSS must provide for the matters set out in Section 17 of the Act, which includes the following:

- (h) *matters relating to climate change mitigation, including—*
 - (i) *indicative locations for infrastructure that is or may be required to support the production of renewable energy or other measures to reduce greenhouse gas emissions:*
 - (ii) *areas that are suitable for land use change that would support reductions in greenhouse gas emissions:*
- (i) *matters relating to risks arising from natural hazards and the effects of climate change, including—*
 - (i) *areas that are or will be vulnerable to those risks:*
 - (ii) *indicative locations for infrastructure that is or may be required to reduce those risks or increase resilience to them:*
 - (iii) *areas that are suitable for land use change that would reduce those risks or increase resilience to them:*

(iv) *other measures to reduce those risks or increase resilience to them:*

The SPA will enable long-term strategic planning which ties together planning for transport, building and infrastructure, and environmental protection and restoration as well as natural hazard risk and the effects of climate change.

7.3 Climate Change Adaptation Act

The Climate Change Adaptation Act ('CCA') was a third proposed statute to be enacted as part of the resource management system reforms. The intent of the CCA was to support New Zealand's response to the effects of climate change and be the primary piece of legislation to address the complex legal and technical issues associated with managed retreat and funding and financing adaptation.

However, the CCA has not eventuated and was not prepared alongside the NBA and SPA (it was anticipated that it would be progressed but on a slower track). Parliament's Environment Committee has instead now opened an inquiry into options for community-led retreat and adaptation funding. Specifically, the inquiry into climate adaptation is exploring how New Zealand could enable communities to relocate from areas at high risk from climate change. It is also looking at how the costs of adapting to climate change could be met. The inquiry is open for public submissions until 1 November 2023 (when the new Parliament reconvenes post-election). It is unclear what the intent is for the CCA following the completion of the inquiry.

8.0 Key Findings and Themes from Literature

The following section summarises findings from a literature review relating to adaptive planning, including its delivery and form.

8.1 The current system and framework

Several articles identified New Zealand's existing government and legislative framework as complex but lacking core integration. The complicated bundle of statutory provisions are ad hoc making navigation of the legislative framework a challenge for local government authorities.

For example, currently, there is no fit-for-purpose legal framework for managed retreat and the complexity of the existing framework makes it difficult for the general public to understand key regulations. There is confusion and frustration as to how the legislation is applied in practice. The lack of a cohesive and well-integrated framework makes it difficult to implement effective policies to support climate adaptation.

In the *Current Legislative and Policy Framework for Managed Relocation Working Paper 2*, the gaps in legislation are highlighted as well as how this creates difficulties for the government (both central and local government) to prevent development within hazard areas and/or 'downzone' land located in a high-hazard areas (Peart et al, 2023). For example, the Councils can only refuse to grant subdivision consent under the RMA when there is a national significant risk from natural hazards and only the BA can be relied on to refuse buildings within hazard zones on the basis of the safety of people. Furthermore, there is no legislation that is well configured for acquiring land exposed to hazard in the circumstances of anticipatory managed retreat.

The role and responsibilities of government in New Zealand in adapting to climate change are also complex and multifaceted.

At the central level, the government has a responsibility to lead the country in climate change adaptation. This includes developing national climate change policies, setting targets, and providing guidance and funding to local governments. The government also has a role in leading the development of new technologies and practices to help reduce emissions and build resilience

At the local level, local government are responsible for creating and implementing climate change adaptation plans. These plans typically involve developing strategies to reduce emissions, protecting vulnerable populations, and preparing for extreme weather events. Local governments also have the authority to implement regulations related to climate change, such as building codes and zoning laws.

8.2 Specific Themes

8.2.1 Defining key terminology

A number of articles identified the vagueness of key terminology as a barrier to implementing adaptation actions. For example, terms such as managed retreat, significant risk, co-governance and co-management are inconsistently applied and defined within both the literature and legislation. As set out in Hanna et al's article '*Managed retreat in New Zealand: revealing the terminology, approaches, and direction of local planning instruments*', defining these terms at a national level is paramount to enable robust and clear interpretation of the approach to adaptation planning across New Zealand (2017).

8.2.2 Governance and delivery arrangements

The structure and form of governance and delivery arrangements was identified across the literature as a barrier to the delivery of adaptation action.

In particular, the literature noted that insufficient central government direction was a hurdle for territorial authorities to be able to implement adaptive measures. Notably, Lawrence et al highlighted that accountable leadership is required to mobilise capabilities and resources in their article '*Adapting to avoidable and unavoidable climate change what must Aotearoa New Zealand do?*' (2020). Further to this, a reoccurring conclusion of the literature was that the current system does not clearly define the roles, responsibilities and functions of each level of government and its agencies which is necessary to enable a coordinated and effective approach to the delivery of adaptation planning (Hanna et al, 2021).

Misaligned timeframes were also identified as a barrier to the delivery of adaptation action in the New Zealand context. Lawrence et al described the tension between the three-year election cycle and the 10-year plan and policy cycles in their article '*Adapting to changing climate risk by local government in New Zealand: institutional practice barriers and enablers*', where it was noted that "the timeframe of planning cycles is too long for flexible response, while the short-term political cycle is too short for consideration of risks emerging over longer timeframes" (Lawrence et al, 2013, p.6).

The absence of clear structure has led to adaptation planning in New Zealand being delivered in an ad-hoc manner with varying results. Further, the decisions that are being made are open to

being judicially reviewed and vulnerable to additional uncertainty and ad-hoc behaviour as the Courts assess each on a case-by-case basis with different experts (Lawrence et al, 2013).

8.2.3 Political risk and community attitudes

In 2019 the New Zealand government sought to undertake a review of the country's resource management system, the findings of which were published as New Directions for Resource Management in New Zealand. This review looked into institutional roles and responsibilities within the system and noted the following:

"although the RMA contains many mechanisms and processes to manage environmental issues, both central and local government have failed to act in a sufficiently responsive and effective manner.... One reason for the lack of central government direction is a lack of political appetite for, or ideological opposition to, intervention in local matters".

(Resource Management Review Panel, 2020, p. 426)

Political risk was echoed throughout the literature as a barrier to the delivery of adaptation action, noting that it is common for major policy initiatives needing to be approved by elected officials before they can be implemented (Gibbs, 2016).

In addition to political risk, adaptation action also comes up against adverse community attitudes, with landowners sensitive to the perception that adaptation policies may impact the value of their assets (Gibbs, 2016). Further to this, coastal adaptation strategies which have longer-term outlooks, often carry little weight in the minds of present-day land or homeowners who hold much shorter-term consideration (Gibbs, 2016).

8.2.4 Iwi, mana whenua and tangata whenua

Māori are anticipated to be disproportionately affected by climate change, including because of their strong cultural and spiritual ties to coastal areas, with many marae located in coastal areas (Iorns, 2019). Given this, there is a need to support tangata whenua Māori institutions, and the associated knowledge and values they hold to enable self-determination and create opportunities to develop equitable adaptation responses (Lawrence et al, 2022).

Further, obligations and duties under the Te Tiriti o Waitangi / the Treaty of Waitangi were discussed throughout the literature. In this regard, it is important to note that local government, the entity responsible for implementing adaptation actions, are not currently directly accountable for Treaty duties as these obligations are still held by the Crown or central government (Iorns, 2019). In their report 'Adapting to Climate Change in New Zealand' the Climate Change Adaptation Technical Working Group recommend that decision-makers "act together in partnership, ara whakamua, and do this in a way that is based on the principles contained in the Treaty of Waitangi" (CCATWG, 2018, p.7).

With regard to the form that partnership and Māori participation takes, in their article 'Treaty of Waitangi duties relevant to adaptation to coastal hazards from sea-level rise', Iorns suggests that Māori advisory bodies are appointed to assist with climate adaptation decision-making around the country and that Mātauranga Māori should be used alongside science for climate adaptation policy and guidance (Iorns, 2019).

8.2.5 Funding

The source and allocation of funding to enable the delivery of adaptation action was a reoccurring theme of the literature. In particular, in relation to the compensation of land compulsorily acquired as part of managed retreat programmes.

With regard to the level of funding available, local authorities in New Zealand do not currently have the financial capabilities to meaningfully engage in natural hazard management, for example, to identify at-risk areas. There are also insufficient funds to develop significant adaptation strategies for existing development, particularly where there are community preferences for hard structures and resistance to retreat (Hanna et al, 2017; Lawrence et al, 2021).

To date, most adaptation action has been undertaken in a reactive manner and funding allocation is reflective of this, with EQC funds largely contributing towards short-term response actions, rather than programmes to pre-emptively and pro-actively manage the risks of climate change (Lawrence, 2022). Pre-emptive planned retreat is not only a costly undertaking, but also one that can result in moral hazard if government funds are used to finance relocating private assets (Gibbs, 2016). Notwithstanding this, some believe that public compensation will be needed to support managed retreat for reasons of efficiency, equity, administrative feasibility, and sustainability (Boston, 2023).

The form that a public compensation scheme may take is also contemplated within the literature. For example, in the Environmental Defence Society's ('EDS') Working Paper on '*Principles and Funding for Managed Retreat*', Peart et al suggest that a Climate Adaptation or Managed Retreat Fund could be funded from multiple sources such as general taxation, rates, or additional levies (2023). In a separate EDS Working Paper, Boston writes that "any compensation scheme will require long-term multi-party backing and a sufficient level of public support" (Boston, 2023, p.19). This however may be difficult noting the number of competing interests at play.

Summary:

- In relation to the management of natural hazards and undertaking climate change adaptation planning, there is a lack of clarity and understanding of key terminology and the current legislative framework does not provide a clear enough structure to enable an effective and coordinated delivery of adaptation planning.
- Adaptation action to date has primarily been undertaken in a reactive and ad hoc manner. One contributing factor to this is the lack of clarity on roles and responsibilities, in particular in relation to who is liable to fund the delivery of adaptation action. Greater clarity on decisions around pre-emptive planned retreat is required to support a more proactive management of risks within local government.
- A number of challenges including financial capabilities (and the associated lack of clarity around how the cost will fall and if it will be a shared cost), political risks and community attitudes are collectively creating barriers and limiting the ability of local authorities meaningfully being able to engage and deliver climate change adaptation action.
- Due to strong cultural and spiritual ties, particularly to coastal areas, Māori are anticipated to be disproportionately affected by climate change. As such, Mātauranga Māori should be used alongside science to ensure equitable climate adaptation policy and guidance is developed.

9.0 Key findings and themes from interviews

As set out in section 5.1.2 above, 13 interviews were completed with a range of academic, policy and local government experts and representatives. This section sets out key findings, including common themes and points of difference. These sections are all based on what interviewees discussed and should be read in that context.

9.1 Academics and other experts

Ability for local government to make risk informed decisions

The ability of local government to make risk informed planning decisions relating to climate change adaptation within the existing legislative framework in New Zealand is highly variable and is perceived to be largely driven by the extent of council resourcing and capacity. There is general consensus that the larger and more well-resourced councils (including those with the right expertise across the board e.g. policy, technical, risk, scientists) have good capacity and capability to make risk informed decisions, however the smaller councils can struggle with the challenge of understanding what is actually required of them, let alone being in a position to make effective risk informed decisions.

Constraints are driven by several interconnected factors including:

- Councils rely heavily on limited ratings revenue and this fundamentally limits risk informed decisions, particularly those which are costly.
- The political economy of local government and land use planning means there are powerful vested interests e.g. developers that can exert a disproportionate level of power on decision makers.
- Climate change adaptation related issues and responses are politically risky, and elected members can be reluctant to make good risk informed decisions that may put their future roles at risk (in terms of re-election), particularly where there are hard decisions to be made e.g. planned or managed retreat.
- Climate adaptation is complex, throughout New Zealand there are huge information gaps and limited risk assessment capabilities which results in councils dealing with large degrees of uncertainty and risk.
- Local government has limited powers to do what is required in terms of climate adaptation e.g. prevent development in areas that are likely to be at risk of inundation and flooding. The powers available to local government are in bits and pieces across different legislation but do not provide a comprehensive framework to support risk informed decision making.

In addition to the above, it was a common view that there is no statutory backing within the current legislative framework to enable local government to make effective risk informed decisions. Interviewees considered that primary legislation (e.g. the RMA) is vague and unclear on how to make risk informed decisions, what action is required to be undertaken and the roles and responsibilities in climate adaptation. Given climate adaptation is not mandated, interviewees believe it is providing an easy pathway for local government to shy away from risk informed decision making, particularly where that may result in challenging or unpopular decisions being made.

Summary:

- Overall, there is an awareness of the need to be thinking about risk informed decisions and the importance of doing so, but the present challenge is how well-placed local government are to actually translate that understanding into action.
- Many councils are trying to make progress in risk informed decision making and climate adaptation planning but are finding this a difficult process. It is easy to commission a risk assessment but the difficulty remains when having to act on this. This challenge is heightened when climate change adaptation and risk informed decision making is not mandated through legislation and there is no clear framework that includes appropriate funding mechanisms.

Barriers for effective planning and implementation of climate adaptation at local government level

Local government climate change adaptation outcomes are perceived as being unsatisfactory and patchy. Five key barriers were identified as limiting and constraining effective planning and implementation of climate change adaptation at local government level:

- Funding;
- Resourcing, both in terms of capability and capacity (although the latter appears to be the biggest challenge in terms of resourcing);
- Local government politics / the political cycle;
- Current legislative framework; and
- Cultural values and understandings.

Funding

Funding is considered one of the most significant barriers, with most councils ultimately not having the money required to undertake climate change adaptation, particularly at a large scale. There is currently no funding framework for climate adaptation, which is raising questions over who is going to pay for it and where does that money come from.

Funding is a critical part of climate adaptation but without it, it continues to be one of the biggest barriers across local government.

Resourcing, capability and capacity

Resourcing, capability and capacity was noted as a key barrier to local government climate adaptation action. Councils 'business as usual' work programme is significant, alongside the requirements to implement all the new policy direction and regulations from central government which is increasingly complex. This does not leave the time and space required to do meaningful climate adaptation; to an extent it can drop off the radar or become a lesser priority, or 'put in the too hard basket'.

There are increased difficulties in ensuring local government has the capability and capacity to undertake climate change adaptation due to the constant professional churn within councils. There are trends of staff coming and going from local government roles which results in a loss of critical intellectual property and knowledge. Other issues include, burn out from the volume of work, and local government staff moving to central government roles that have higher salaries. There were also concerns raised in terms of various reforms affecting local government, including the RMA, and three waters, and what this means for roles in local government.

In addition, climate change adaptation is increasingly complex to understand, plan for and implement. In most instances, the elected members and local government staff do not have the specialist knowledge behind them to support adaptation work programmes. Responding to climate change has become so sophisticated and complex that it is almost shifting to a space where it requires specialist consultants and it is no longer suitable or palatable to have politicians and local government staff who haven't had specialist training to form governance and decision-making type roles.

Local Government politics and political cycle

The three-year political cycle is a significant barrier and fundamentally doesn't support climate adaptation planning. Issues include:

- Climate change adaptation is a long-term project which is in direct conflict with the short political cycle.
- Many elected members are part time with the role of 'councillor' being in addition to another full-time role. This is challenging given the scope and nature of climate change adaptation – the capacity to do everything that is required in that role is unachievable.
- It is difficult to get political support for adaptation projects as these are long term. Often these less immediate projects are delayed in favour of more current concerns, including those where there is ratepayer pressure.
- It is hard to get good decision making when councillors fear being voted out in the next election.
- In some cases, elected members start getting up to speed and grappling with the complexity of adaptation work, then new politicians are voted in and climate change adaptation work essentially has to start from scratch.

While not common, some interviewees also noted there was climate change denial from some elected members at some councils. This often results in critical time being spent arguing the 'why' and getting caught in political decisions meaning Councils can't get to adaptation action.

Legislative framework doesn't enable climate change adaptation planning

There is a lack of clear statutory framework in New Zealand. The current regulatory framework e.g. RMA, LGA do not provide adequate direction to councils in relation to climate change adaptation. Where there is some direction given, it is often discretionary and in the context of other competing and conflicting considerations. There is no criteria or basis for effective and robust climate adaptation decisions within local government.

One of the key challenges is that the powers available to local government are in bits and pieces across different acts which increases the complexity, uncertainty and legal risk. This undermines the capacity for prudent planning. The lack of clarity in the legal framework means it is often 'beaten up' or challenged by wealthy landowners. Interviewees noted that this raises the question being faced by many in local government, of why fight this fight in terms of climate adaptation.

A robust legislative framework is needed to support and enable the planning that needs to be undertaken, noting that currently DAPP planning has no statutory base and there is no statutory requirement for risk assessments or climate change adaptation plans. Councils aren't required through the legislative framework to undertake climate change adaptation which is one of the biggest barriers, particularly when considering how it intersects with other factors such as local government politics and the risk of litigation and legal challenge.

Integrating cultural values and use of te ao Māori

Understanding and integrating Mātauranga Māori were also identified as a challenge by several of the interviewees. It was noted that there is a lack of support and guidance from central government on climate adaptation action and planning, with most councils making it up themselves as they go. This however presents significant challenges when dealing with the complexity of taking proper account of cultural values and how to integrate them into adaptation, particularly in terms of questions such as what weight do you give to climate adaptation action required or cultural values, and what happens if/when Māori understandings are in conflict with mainstream/western science. How do you weigh up the conflicting values? Do Māori cultural concerns trump the need and desire to be protected from climate change effects or not?

Summary:

- Funding, resourcing capacity and capability, the local government political cycle, the current legislative framework and integrating cultural values are the core barriers limiting climate change adaptation action within local government. These barriers are all equally constraining as the issues are cumulative and interactive. Even if a framework is developed and available, if any of the identified barriers are still present, making risk-based decisions and undertaking effective climate change adaptation within local government will remain difficult.
- The lack of legislation or national policy that mandates adaptation planning in terms of setting out legal requirements is ultimately weakening the governance, funding and delivery arrangements for climate change adaptation within local government. This is resulting in inadequate direction to councils in relation to climate change adaptation. Where there is some direction given, it is often discretionary and in the context of other competing and conflicting considerations. This heightens challenges with the short political cycles in New Zealand which often results in elected members focusing on immediate issues and being reluctant to make big decisions that will assist in effective adaptation. Alongside this, the lack of a framework that includes a funding mechanism is one of the most significant barriers, where councils do not have a critical tool required to undertake climate change adaptation.
- Climate change adaptation is a highly technical and complex topic. In most instances elected members and local government staff do not have the specialist knowledge and expertise to support adaptation action which is a direct reflection of the climate change adaptation progress being made throughout New Zealand.

Potential responses/solutions to resolve and/or address some of the perceived and actual barriers to local government climate change adaptation

While there are several barriers limiting local government climate change adaptation, there are potential responses/solutions available that could help to resolve and/or address some of the barriers.

Funding: While funding cannot be the only solution and a response which is more than just giving councils money is required, having an appropriate funding mechanism was identified as being critical. Opportunities to utilise taxation, or levies on development, could be an option to providing targeted funding to local government to support climate adaptation programmes. A targeted fund for councils to draw on could be established with a series of criteria developed by central government being attached to that funding to ensure and support good balanced decision making.

Climate change adaptation framework: a critical response/solution identified was the development of a clear climate change adaptation framework (including risk assessment) to make it explicitly clear what to do, how to do it, and who should do what. This framework needs to be for the whole process of adaptation planning and response and be supported by clear national policy and legislation to ensure councils have the necessary tools. The adaptation framework should be focused on principles and decision-making but could also deal with how conflicts in terms of Māori culture and western views can be resolved. In mandating climate change adaptation and providing a clear framework this would allow a cohesive response nationally and remove some of the political interference.

Shared services arrangements: encourage and enable shared services arrangements within councils across regions. Innovative options could be explored to coordinate resource sharing in a more effective way. For example, this could look like sharing of staff and their knowledge, work programmes and research findings.

Climate change adaptation institution / expert body: it was identified that local government requires additional support from climate change adaptation specialists, including Māori cultural advisors, to assist with navigating the highly technical field of climate change adaptation. There are a variety of forms that this could take, for example, through the creation of a pool of advisors or specialist consultants at a national level whom council personnel could readily access. Alternatively, a similar outcome could be achieved through central government arranging for technical experts to work within councils or providing resources to enable the secondment of such specialists into councils.

Involve local government from the outset in nationally led climate adaptation legislation or programmes: local government are often perceived as just a delivery arm of central government but should be brought in as partners on any climate change adaptation related programmes. This would remove silos and create buy in from local government so there are dedicated people championing the work from the outset. Given the role of local government in implementing climate change adaptation, they should be involved in the design of legislation and plans at a national level to ensure more practical actions and solutions.

Whole system alignment: better alignment is needed between tertiary education providers and the needs and outputs of central and local government. Notably, tailoring university courses to generate more individuals with the specific skill sets and qualifications required to lead and undertake climate adaptation work would help to address the current demand and shortfall of specialists in this sector.

Summary:

- While there are barriers limiting local government climate change adaptation action, there are several solutions that can help to resolve the present challenges. The most critical solution was mandating climate change adaptation planning through national legislation or policy. A nationally consistent mandate could provide an adaptation framework for the whole implementation processes, focusing on principles and decisions making and clearly setting out the legal requirements. The framework could also include an appropriate funding mechanism to support local government in climate change adaptation.
- In addition to a mandated framework, it is commonly agreed that establishing a centralised climate change adaptation institution / expert body is a clear solution to many of the barriers being experienced within local government. This could involve the

creation of a pool of advisors, specialist consultants available to local government or technical experts working within councils through secondments.

- Tailoring university courses to generate individuals with the specific skill sets and qualifications required to lead climate change adaptation.

Key opportunities for supporting effective adaptation planning and implementation

Interviewees believe there are many opportunities to support the delivery of prudent, efficient and fair adaptation action. For example, one opportunity which presents itself is the ability to foster a culture of learning and development within the climate change adaptation space. This could include the mandatory training of elected members, New Zealand Planning Institute courses for professional planners, or a training programme for council executive teams and on-the-ground staff. Interviewees suggested that this could take the form of an equivalent to the 'Making Good Decisions' training programme to become an RMA commissioner.

In addition, there is also the opportunity to standardise the process of climate change adaptation and associated decision making. In particular, the provision of clear directives, legislative frameworks and risk assessment policies would reduce the risk of litigation and provide clarity to the community as well as minimise debates on what the nature and scope of adaptation action should look like. Interviewees consistently identified climate adaptation planning and implementation being mandated by law as a critical opportunity to support effective adaptation action; central government need to take a lead on this matter and centralise directives for climate adaptation.

Summary:

- A mandate for climate change adaptation through laws is a key opportunity for supporting effective adaptation planning and implementation. This would be in the form of standardising climate adaptation planning, implementation and decision-making processes, including the provision of clear directives, legislative frameworks, and risk assessment policies.
- It was widely agreed that there is also a key opportunity to foster a cultural of learning and development within the climate adaptation space – for example, mandatory training of elected members and NZPI training courses for planners. Focusing on upskilling local government staff will help to build in-house capability and ensure councils are well informed and have a good base understanding of climate change to support effective adaptation action.

NAP and RMA reforms – hinder or support local government climate change adaptation

There are varying views as to whether the NAP and RMA reforms hinder or support local government climate change action.

For those that considered the NAP and RMA reforms a hinderance, the following was raised:

- The NAP feels largely artificial and not fit for purpose for supporting councils in undertaking climate change adaptation, particularly given local government is largely left out of it and also absent in its development;
- The NAP does not sufficiently consider the role that local government plays in delivering adaptation action and as a result hasn't been an impetus for additional action in this space;

- The NAP is a plan to make plans and does not provide specific guidance, practical actions, or solutions, making it unhelpful to drive or guide climate change adaptation actions; and
- Within the NBA and SPA, insufficient weight is given to the RSS to enable these documents to clearly support adaptation planning.

Several interviewees noted that if local government agencies were looking to undertake adaptation planning under the NAP, the ultimate question is what you would be doing and basing it on, as there is nothing within the NAP itself to guide this process.

Conversely, others considered that the shift towards spatial planning provided an opportunity for more strategic decision making. In particular, a regional approach which looks at where risk is greater and lesser would enable better adaptation planning outcomes.

Summary:

- There were varying views as to whether the NAP and RMA helps or hinders local government climate adaptation action.
- Generally, the NAP is not fit for purpose and hasn't been an impetus for climate change adaptation by local government. This is largely due to the NAP lacking clear direction and guidance on how councils should be undertaking adaptation action.
- The resource management reforms, while making some useful progress, e.g. RSS, are also perceived as ultimately falling short with respect to climate adaptation planning. RSS are a positive step forward in encouraging a strategic region wide approach and consideration of risk and climate change adaptation, however beyond this, the reform has not provided tools which assist in aiding councils to undertake climate adaptation.

Gaps in the legislative reforms

While the NBA and SPA both have royal assent, the third key pillar of the reform package, being the Climate Change Adaptation Act, is missing. As a result of this, there is uncertainty as to how the new legislation will effectively provide for adaptation action.

In addition to the gaps within the legislative framework, issues have also been raised in regard to the weight of plans prepared under the SPA. Notably, these plans are considered to lack the level of legal force necessary to enable the delivery of effective climate adaptation action. Further, decision making under both the NBA and SPA relies on regional planning committees rather than elected members, an arrangement which could reduce the accountability of decision makers who are not politically responsible for the resultant outcomes. There was concern that there is a significant risk, given the legislative weight of RSS and the institutional arrangements for decision making under the new legislation, that great work in the climate adaptation space will be done, but it won't have the necessary impact at a local level.

Summary:

- The Climate Change Adaptation Act has not been prepared and it is widely considered to be a core pillar to the legislative reforms and changing the way climate change adaptation is undertaken within local government.
- Given this, there is uncertainty as to how the new legislation (NBA and SPA) will effectively provide for adaptation action, with concerns that until there is clear policy direction, implementing adaptation at the local level will remain difficult. In addition, while RSS prepared under the SPA are a positive step forward towards a more holistic

consideration of climate change, it will not have the necessary statutory weight to support effective adaptation action, particularly without a clear national mandate.

9.2 Local government representatives

Local/regional climate change risk assessments, adaptation plans, and strategies

The presence and scope of local and regional climate change risk assessments, adaptation plans and strategies varied between local authorities, as does the level and nature of background work undertaken to input into these documents. For example, some councils have focused on climate change projections, while others have prioritised the development of a multi-hazard risk assessment to feed into climate adaptation plans. Notwithstanding this, to date, most regions have a regional risk assessment which territorial authorities can build on to develop local risk assessments, and adaptation plans and strategies.

One feature that was consistent between the territorial authorities represented by those interviewed, was the need to seek out funding for climate adaptation projects in the current or upcoming long term plan budgets. There was one example discussed of a council using a targeted rate to fund climate change focussed projects.

Between councils there were varying degrees of resourcing and funding being directed towards climate change risk assessments and adaptation actions. While larger councils generally have greater capacity, interviewees noted that this does not necessarily result in greater levels of prioritisation and coordination within the institution. In addition, although the allocation of funding for tangible projects (i.e. those that deal with infrastructure, people and property) tended to be easier for larger councils, obtaining funding to deal with more discrete issues that sought to reduce exposure has proven to be more difficult.

Summary:

- The presence and scope of local and regional climate change risk assessments, adaptation plans and strategies vary between local authorities – some have both risk assessments and adaptation plans whereas others are at the early stages of preparing a risk assessment to then inform an adaptation plan.
- The resources and funding available for climate change risk assessments and adaptation action is highly variable.

Governance, funding and delivery arrangements within councils for climate change adaptation

The governance, funding and delivery arrangements specific to climate change adaptation varied between the councils.

Governance

Governance formats differed across the local government bodies interviewed with a range of arrangements including:

- Regional elected members reference groups – the degree to which these reference groups are actively used varied significantly, for example some interviewees noted that the reference groups meet regularly (e.g., once a month), whereas others noted that a reference group exists but the elected member does not attend.

- Elected members with specific climate change portfolios – several councils have an elected member who acts as a climate change champion and who is responsible for all climate change adaptation work programs within the council. In most instances, the elected members holding the climate change portfolio for each council were appointed on the basis of having an interest in climate change and/or wanting to upskill in this space; only one council interviewed has an elected member with specific expertise in the field. However, within some council organisations, interviewees noted that mayors have specifically appointed a climate portfolio to an elected member who has no specific interest in climate change, or do not believe in climate change. This was noted as being a deliberate action by some mayors in order to generate greater support and buy in for climate change adaptation.
- Climate change sub-committees – some councils also have specific sub-committees, made up of a mix of elected members, chief executives, climate advisors and iwi. Several interviewees considered partnering with iwi to be critical for adaptation planning. For those councils who don't have a climate change sub-committee, it was common for any climate change related work/programmes to go through a more general risk and quality assurance/audit committee instead. Several interviewees noted that the downside to these sub-committees is that they can be toothless if they don't have the appropriate delegations to make decisions, which is often the case.
- No specific climate change governance arrangements – in some cases, councils do not have any specific governance arrangements for dealing with issues related to climate change and any related matter would go to the normal council meeting for consideration.

Funding and Delivery

With regard to funding, all councils rely on Long Term Plan (LTP) funding for climate change work programmes and projects, although it was frequently noted by interviewees that there is going to be a need for other sources of funding beyond the ratepayer going forward, given the complexity and scope of climate change adaptation. Additional funding sources for climate change adaptation include central government grants. The challenge with this funding source according to interviewees, is that councils often find out about the potential grants at short notice and detailed applications have to be prepared and there is no guarantee that the funding will be secured; on this basis it is not a reliable source of funding that can be relied upon across local government.

One council noted that the level of investment in climate change action was directly impacted by the recent occurrence of natural hazard events. Notably, following the weather events experienced earlier this year, funding for climate adaptation is currently more forthcoming. Some councils also gave examples of funding which has been received to undertake climate change adaptation related research, with specific co-funding from entities such as the Environmental Defence Society.

The importance of implementation was raised by those interviewed with a number of representatives finding that while putting a plan in place was achievable, the real hurdle was implementing on-the-ground action. This includes challenges associated with getting buy-in from asset managers to implement adaptation strategies (because they are typically focused on business as usual tasks with limited resourcing to address adaptation actions), as well as the difficulty of defining key triggers for action and against which monitoring can be undertaken.

Councils identified that where funding is available for climate change adaptation, knowing what to do with the funding, and delivering meaningful adaptation action is a challenge and this delivery

can be constantly under threat due to changing priorities. In responding to this challenge, several councils have or are moving towards embedding climate change adaptation into all 'business as usual' workstreams, so that it is dealt with and considered in all aspect of council functions.

Several councils also noted that they have specific climate change roles which are relatively new funded positions. The funding for these roles has been secured through the current LTP cycle to help drive and support the delivery of climate change adaptation. There was general consensus amongst interviewees that they would all like to have climate change specific positions, with a few councils seeking funding through the 2024 LTP in order to enable this.

Summary:

- Climate change adaptation governance, funding and delivery arrangements are highly varied across local government.
- Diverse governance formats include regional elected members reference groups, elected members with climate change portfolio, and climate change sub-committees. Some councils also have no specific governance arrangements. Regardless of the governance format, partnership with iwi is viewed as critical for supporting robust adaptation planning.
- Funding and delivery of climate change adaptation is primarily funded through Long Term Plans. While other funding mechanisms such as central government grants are available at times, they are not a reliable source of funding for all councils.
- There is a shift towards local government staff trying to embed climate change adaptation into all 'business as usual' workstreams to ensure adaptation planning is being undertaken in a robust and integrated manner.

Governance, funding and delivery arrangements barriers and opportunities

In most cases, council governance, funding and delivery arrangements were acknowledged to be both barriers and opportunities to the delivery of climate change adaptation action.

Governance

The lack of clear governance structures for councils was considered to be a key barrier, with councils believing that this is often the result of insufficient direction from central government. The three yearly electoral cycle however was specifically identified by all interview participants as the most critical governance barrier effecting local government climate change adaptation. The frequency of the electoral cycle means that many elected members are focused on the here and now, and responding to rate payer pressure rather than making climate adaptation decisions which endure beyond the current electoral cycle. Interviewees noted challenges in managing elected members when engaging in climate change adaptation as they have their own values and vested interests of wanting to be re-elected. Given the nature of climate change adaptation decisions, some of which will be unpopular with the community, it can be hard to get the necessary traction or support.

Several councils noted that there are also governance barriers at the executive level, where there can often be debates about whether climate change exists, or whether it should be a core part of the work programme when considering trade-offs. Mandating climate change adaptation at central government level, as well as better funding arrangements was felt to be an opportunity to circumnavigate the challenges with council executives.

Despite the perceived barriers, interviewees felt that there are opportunities within the governance space to capitalise on climate change portfolios for elected members with influence who can champion adaptation action.

Funding

The ability to obtain funding, particularly given the lack of central government support and the competitive nature of accessing funding through the LTP due to competing organisational priorities is a barrier to supporting effective climate change adaptation action. Particularly when considering managed retreat which is likely the most significant cost, the same question is being asked within local government of 'who pays?'. The responsibilities of funding adaptation action of this nature are considered to be unclear and there is concern within local government that councils cannot afford to buy everyone out as there simply isn't the debt headroom and it is unfeasible to pass this cost onto ratepayers.

Delivery

Several barriers in relation to the delivery of climate change adaptation action within local government were identified. There was general consensus across all councils interviewed on the types of delivery barriers, some of which included:

- Insufficient resources in relation to both the capacity of staff, and the level of their knowledge and expertise. In some instances, where councils are struggling with staff resourcing, there are also challenges in securing the funding required to contract in the required specialist expertise. Smaller councils interviewed identified the pressure of having significant capacity challenges based on available staff resourcing. There were some perceptions that larger councils do not experience the same pressure as they have access to a much larger pool of resourcing, giving them greater capacity and therefore capability to undertake climate change adaptation. Conversely, some interviewees noted that the greater capacity a council might have does not equate to climate adaptation planning and implementation being any easier. In fact, those councils with greater capacity, often experience other challenges such as silos and larger scale issues and pressures which create barriers to making good progress despite having adequate resourcing;
- Council departments are often quite siloed which makes it difficult to consider climate change adaptation strategically and holistically and there can often be tensions between knowing that adaptation work is necessary but what this means in reality to costs and long-term implications for other work programmes and council departments;
- It takes a skilled person to undertake effective adaptation planning as that person needs to understand the local community and be able to work with them closely to build confidence and trust. This conflicts with the current capacity and capability challenge many councils are facing. The use of external specialist support where those people may not be familiar with the local context, or churn of local government staff means it is difficult to be able to deliver a cohesive climate change adaptation programme;
- Climate change adaptation can be highly emotive and it can be challenging and time consuming to manage mis-information and ensure people have accurate information which can distract from actually get work done;
- Preparing a coastal adaptation plan is more straightforward with a smaller community and when there is space to retreat to, but this is a vast challenge in larger cities. The size of some

communities becomes a challenge for engagement and direction to make robust decisions on adaptation pathways and triggers;

- The inability to deliver adaptation planning within the RMA framework and policy settings, which requires a greater level of certainty than exists within climate change realm;
- Fear of litigation under the LGA and RMA, particularly when it comes to private property rights and how councils treat and zone land and manage infrastructure. The litigation risk influences decision making significantly within local government and often results in no adaptation action being undertaken, or a watered-down version. The lack of mandate from central government or standardised framework heightens the litigation risk felt by councils;
- Dynamic adaptive policy pathways ('DAPP') and the associated MfE guidance was identified as an opportunity by some to support streamlined delivery of climate change adaptation, however it was also identified by some interviewees to be a barrier. In relation to the latter, this was on the basis that the DAPP framework was not fit for purpose within the New Zealand context, both in its scale and lack of alignment with our current regulatory regimes; and
- Climate change skepticism at all levels including within the community, elected members and council executive team.

In regard to the governance, funding and delivery barriers presented above, interviewees expressed the need for central government to make brave decisions that support local government in delivering adaptation planning, that seeks to remove barriers where possible.

Summary:

- Governance, funding and delivery arrangements were consistently agreed to be both barriers and opportunities to climate change adaptation action.

Governance barriers:

- There is often a clear lack of clear climate change adaptation governance structures for councils which is driven by the lack of insufficient direction and mandate from central government.
- The three yearly electoral cycle conflicts with the long term focus of climate change adaptation. This creates challenges in having elected members making climate change adaptation decisions which endure beyond the electoral cycle given vested political interests in re-election.
- There are challenges at the executive level as to whether climate change adaptation should be a core work programme, particularly in light of competing priorities and trade-offs.

Funding barriers:

- The ability to obtain funding is not guaranteed due to the competitive nature of LTP budgets and competing priorities. This creates a regular challenge of local government staff trying to obtain the money required to support climate change adaptation work.
- There is no funding framework for climate change adaptation, particularly in regard to managed retreat. Without this framework, local government continue to lack clarity on how managed retreat should be funded including in relation to how costs may be shared.

Delivery barriers:

- There is insufficient capacity and capability of local government staff; staff often do not have the knowledge and expertise required to undertake and/or lead climate change adaptation programmes.
- Particularly within larger organisations, siloed council departments make it challenging to holistically consider climate change adaptation strategically. This can result in ad hoc and poorly integrated climate change adaptation planning.
- The current legislation e.g. RMA and LGA and policy settings do not provide the necessary direction or mandate requiring climate change adaptation. Without clear policy direction, there is significant fears of litigation risk, particularly when it comes to private property rights and how councils treat and zone land which is acting as a deterrent in some instances to climate change adaptation planning and implementation.

Ability of councils to make risk informed planning decisions within the existing legislative framework

There is significant variation between councils' ability to make risk informed decisions within the existing legislative framework, for example, some councils noted their ability to be poor, whereas others felt like they were relatively well placed to make good decisions. There was general consensus from interviewees that often climate change adaptation decision making has tended to be ad hoc and reactionary, and at times a secondary consideration. Preparing and implementing detailed risk assessments and local adaptation plans/strategies was seen to be a key opportunity to assist with this, and to ensure future decision making for council functions occurs in a more robust and considered way.

Key concerns regarding the ability to make risk informed planning decisions were linked to matters such as the political environment within local government and the lack of clarity, priorities, guidance and mandate provided through the suite of existing legislation. In particular, the following was raised:

- Climate change adaptation and what this means and looks like, particularly in terms of decision making, is undefined which creates a problem from the outset. Once councils have managed to resolve this problem, too much time is spent trying to navigate the planning framework to support the required action, because the legislation doesn't provide clear support;
- There is not currently one piece of legislation that addresses and requires risk informed decisions, rather a number of Acts (e.g. RMA, BA, LGA, CDEM) which at times conflict with one another. The sheer volume of legislation and national direction which is un-aligned and conflicting doesn't provide the direction required or support councils to make risk-based decisions;
- The focus within the legislative framework is often on mitigation rather than adaptation, which can result in less strategic long-term, risk informed decision making. The legislative framework also does not answer the big question of funding, including how risk-informed decisions e.g., managed retreat, is to be funded. Without this longer-term view, many councils are reluctant to make the hard decisions required;
- Good risk informed decision making requires a sound supporting evidence base in the form of risk assessments and climate adaptation plans or strategies. However, there is no legislative requirement to undertake this work, with this lack of mandate resulting in practitioners having to justify their work. Additionally, there is the risk that this leads to councils making uninformed and potentially risky decisions;

- The lack of mandate often means that instead of making good risk-informed decisions, often adaptation professionals are simply facing the challenge of justifying the work as a must have instead of a nice to have. This can distract from the need for adaptation planning to support decision making;
- The political landscape hinders the ability of councils to make risk informed decisions. This is particularly the case when dealing with community expectations around property rights without a clear legislative framework to navigate this issue;
- RMA plan review cycles are too long to enable an agile response to climate change risk; and
- The fear of litigation under the LGA and RMA often results in decisions being put on hold or waiting until the government mandates action. Where information or decisions e.g. on natural hazards could be challenge by another party, often the appetite to push back or make hard decisions is low.

Contrary to the above, some considered that the legislative frame has good provisions to support good risk-based decision making, and the key issue in practice comes down to how the legislation is implemented.

Summary:

- There is good intentions within local government to make risk-informed planning decisions in relation to climate change, however the current policy settings make it difficult for local government to do so.
- It is widely accepted and acknowledged that risk-based decision making in terms of climate change adaptation is good practice. However, the legislative framework needs to provide greater guidance and be more directive to provide the clarity needed to support and enable local government to make good risk informed decisions.
- While it is easy to prepare a risk assessment and build an evidence base, translating this to action via good decision making and getting elected members willing to support implementation is very difficult. Climate change adaptation decision making is highly risky within the local government context due to wide ranging factors including the political environment, costs and community perceptions. These factors collectively inhibit the ability of local government to make good risk-informed decisions.
- The statutory requirements to enable and support risk-informed decision making is missing in the current legislative framework and there isn't one clear piece of legislation requiring this.

How the RM reforms could impact or better support council in delivering adaptation action

Many of the respondents supported the RM reforms with its strengthened provisions and increased guidance. In particular, the SPA and regional spatial strategies were seen as an opportunity to embed a cautionary approach at a regional scale in a way that would both ensure development does not occur in at risk places, and consider how existing communities are managed to ensure long-term resilience. Opportunities for implementation of adaptation action were also identified in the reforms, in terms of using risk assessments to support adaptation planning across different scales.

A reoccurring critique of the reforms was the delay of the key piece of legislation for adaptation planning, being the CCRA, and the funding framework that it is signaled to include, particularly given a lack of financial resources is a significant impediment to delivering adaptive action.

Additionally, The National Planning Framework direction on climate change and natural hazards was identified as another opportunity which could facilitate nationally consistent approaches and avoid the need for each council to reinvent the wheel. It was noted that this should be more directive than current guidance.

Some interviewees saw the regionalisation of planning as a good thing, in terms of consistency and more clout in terms of resource. The reforms were identified as an opportunity to provide clarity to community members, rather than tackling on a consent-by-consent basis with no overarching approach. There is a need to have higher order directives to inform district plan changes, so that it is clear for the community what the requirement is, including in relation to thresholds and the evidence base.

Interviewees noted that the planning system deals with new development. It is possible to navigate a way to ensure new development is not located in at risk places, but the challenge is with existing communities and ensuring resilience over the long term – this is where many interviewees noted a legislative gap. The SPA is looking into this in terms of land uses and risk, but without the support of mechanics around managed retreat and who pays, there is a big policy black hole. The challenge with the NBEA is that it has a clear focus on the built environment and urban development outcomes however a climate focus and/or lens is not weaved through this piece of legislation. This gap in the NBEA is heightened by not having the CCAA to work alongside the NBEA.

Other concerns included that the new legislation was not dynamic enough to enable adaptive planning or enduring decisions, and that it could create additional issues as practitioners grappled with the new framework.

Interviewees also noted the following:

- The BA is still an issue in terms of adaptation planning. An example of this is that the BA only requires floor levels to be above a 1 in 50-year flood event which as a result of climate change is becoming a more common event. It is noted that in December 2022 the government announced proposed building for climate change amendments to the BA. However, this does not extend to specific support for adaptation planning.
- A standardised risk assessment framework is required, including examples of thresholds to guide decision making as well as recalibrate and start planning for climate change.
- The RM reforms lack the social license needed to support enduring decision making.
- The current framework could have been retained and added to, it could have been more useful. Now the challenge is figuring out a new framework and how to adapt within that.
- There is no definition of tolerable/intolerable, noting this can change between communities.
- Integration between central government agencies such as Waka Kotahi and local government is also required.

Summary:

- The SPA in particular is viewed as helpful in terms of the requirements for regional spatial strategies which will ensure a more holistic consideration of the effects of climate change. The spatial strategies will result in a regional approach to the location of new development away from at risk areas

- There is support for the NBEA National Planning Framework including natural hazards and climate change direction. However, the core piece of adaptation legislation, the Climate Change Adaptation Act is missing has not been prepared. This is a significant issue, particularly with respect to providing clarity around funding adaptation action.

Role and responsibility of local government

With regard to the role and responsibility of local government in undertaking climate adaptation action, there was a general consensus that local government are best placed to lead this body of work as adaptation actions occur at a local scale and local government needs to lead the conversation. Local government has the advantage of being on the ground, in touch with the local community (although this is noted as more of a challenge for cities) and local community sees local government as the lead.

Notwithstanding this, many interviewees noted that central government have an important role to play in providing support to local government through national direction, an evidence-based framework, primary and secondary legislation, resourcing, coordination and funding. This is particularly the case as all councils are grappling with the same issues and efficiencies of scale could be achieved. Under the current regime there is very little guidance and huge amount of wasted energy reinventing the wheel each time.

It was noted that local government needs to be continually reviewing practices, monitoring and looking at what is happening locally. This could potentially be linked to long term planning cycle

As noted above, local government can lead with local people on the ground, provide continuity of people, and build trust and confidence. There is a challenge to retain momentum, e.g. lots of knowledge and momentum lost when key people (staff or elected members) leave.

Another challenge of local government being responsible for climate adaptation is that local government ends up arguing with communities. If there is more of a central government influence this takes the issues away from individual councils by making it a national response/requirement. However, if central government is telling the community what to do, the balance of allowing for community decision making may be compromised. There are two sides to the issue, and a desire was expressed for stronger central government direction that allows for a local response.

There is a perception that central government has put a lot of responsibility on local government, through various mandates, but has not provided enough funding to implement.

Interviewees also noted that more inter-regional coordination is needed as the issues can extend beyond the region. This supports the requirement for more national funding in order to properly address adaptation planning that needs to occur across regional boundaries.

It was also noted that there needs to be a framework for existing communities, including how to manage and strengthen provisions and make sure that communities are not intensifying in at risk areas.

Summary:

- A commonly held view was that climate change adaptation action should be led by local government. This is because local government is on the ground, connected to the community and understand the local context. Central government support however is required, specifically in terms of providing clear national policy direction/ mandate and a framework for funding. In order to achieve effective climate change

adaptation, ultimately both central and local government need to work together with the differing roles and responsibilities being carefully balanced.

Impact of recent cyclone events

When asked whether the recent weather events had changed their council's response and approach to climate change adaptation, the respondents provided varied responses which were generally reflective of their proximity to the events. Generally, the weather events have sharpened the focus and thinking in relation to risk and resilience, identifying where communities are most at risk. The recent events reiterated that these events happen, happen more frequently, and there is a cost to rate payers. The cyclone showed that things can go wrong very quickly and created a window of opportunity to push climate adaptation workstreams. It was noted that there has been lots of community feedback and from iwi and hapū about areas that were damaged in the cyclone. In addition, the cyclone and related impacts has been included as a key criteria in recent central government funding grants.

It also highlighted an opportunity for CDEM to work alongside the delivery of adaptation action. For example, increasing the level of coordination between adaptation planning and civil defence, and aligning readiness and response with prioritised infrastructure investment. The need to do adaptation planning before putting infrastructure in place has also been highlighted.

One interviewee noted that the weather events had fundamentally changed how elected members within that council perceive climate change and adaptation and had induced a shift towards adaptation action that had previously been unpalatable. It was noted that in some instances these events have resulted in knee-jerk reactions, and a push for short term solutions such as the rebuilding of hard protection structures. While some elected members push for mitigation, there is a view that adaptation is the way forward. This is understood to be driven from perspectives that we can't keep relying on mitigation alone to address the effects of climate change and that adaptation is necessary.

Summary:

- The recent weather events have highlighted the need for adaptation planning.
- Climate change mitigation has traditionally been the primary focus for councils, however the increase in weather events recently has brought the importance of adaptation to light alongside mitigation measures.

Support for councils to enable better climate change adaptation

A range of responses were received when interviewees were asked what support councils need to enable better climate change adaptation. These generally related to the need for additional resource, and national policy direction/guidance.

Personnel (capability and capacity)

As discussed above, a lack of resourcing was identified as a key barrier for local government climate adaptation. This includes demand for more technical specialists, and upskilling staff. It was considered that central government could commit more funding in this area.

Ensuring that university courses enabled graduates to have the right skills and knowledge to work within the adaptation space was identified by several interviewees, as there is limited knowledge nationally and a need to build capacity. The profession needs the right people coming out of

planning school and other disciplines. This is a relatively new issue and planners of the future need the skills and knowledge to navigate it. There is a need for a mix of scientists, planners, economists and different people to work together to make climate adaptation work. At the moment capability is typically seen as a bigger issue than capacity, and having the right people to work with community, elected members, and scientists.

Training for elected members on climate adaptation planning was also identified as an opportunity, particularly in the governance space.

Additional resourcing to enable a greater understanding of Māori values and support Māori led adaptation action, including incorporating Mātauranga Māori was identified by a number of interviewees. This was identified as an area where more resourcing is required.

National direction and coordination

The need for more coordination and mandated direction at a national level was a common theme. This includes the need for a clear framework within which to deliver adaptation planning – through both legislative change and national direction, as well as guidance. A methodology for climate adaptation is required.

Interviewees considered that central government and the Commission should advocate strongly for long term planning for adaptation. It was identified that the NAP doesn't set out a strategic framework for how to address adaptation in the long term.

Coordination between and across scales was also identified as an area requiring support. For example, it was suggested that the Commission could connect adaptation planning practitioners to enable knowledge sharing, as well as establish a national database of information so that councils do not need to rely solely on local data and research. The Commission could play role as better connector across central government – it was considered that MfE don't have capacity or capability to broker some of those relationships – there could be a role for the Commission to bridge those gaps.

It was also identified that the Commission should think clearly about how the NCCRA ties into the needs of local government – how it can support and link-in all sources of data to provide a clear path for local government to confirm the risks and adaptation interventions that are required. It was noted that climate change risk assessments often focus on coastal aspects, including coastal hazards and sea level rise, but do not focus as much (or at all) on other natural hazards that are impacted by climate change, for example, wildfire, drought. Interviewees observed a need to broaden the scope of risks considered through climate risk assessments to ensure all risks are addressed.

Related to this was the need to develop a national database of information, and not just rely on local data. It was considered beneficial to improve information that is available to the public, e.g. via LIMs, extend this to include detail on insurance claims, natural hazard events so that people are well informed.

It was identified that significant resource and funding is required to tackle managed retreat. Some interviewees considered there could be potential for a scheme that attracts funding, potentially similar to how biodiversity credits might work. The funding could be spread across the country. Alternatively, one interviewee noted the need for a dedicated fund which could build up over time and be allocated fairly across councils to support pre-emptive reduction in risk before an event occurs.

The potential for a national resource of experts was also discussed, there were mixed views on this, cautious of central government coming in and taking over vs local decision making. One option noted was to have a team that could provide support to local councils on the ground and have local staff leading this. Support in the technical space would be welcomed.

Summary:

- A clear framework for adaptation planning is required. This includes a comprehensive legislative framework that encompasses the requirement to undertake adaptation planning as well as a framework for developing funding mechanisms.
- Support for more technical expertise and skilled adaptation planning personnel is required. This includes training people with the right skills (in house and at university). There is also an opportunity for Central government or potentially the Commission to coordinate a pool of expert resources as well as a national database of climate adaptation planning information.
- A greater understanding of Māori values and support Māori led adaptation action should be supported including incorporation of Mātauranga Māori into adaptation planning.

9.3 Key findings from the interviews

In general, there was reasonable alignment in the views of the local government interviewees and the academics/other experts. The importance of climate adaptation was shared by all participants, with several emphasising the urgency of the issue. Overall, it was found that there is currently no legislative framework that mandates adaptation planning, nor is there a framework to support the development of the funding mechanisms required to address adaptation planning at scale.

Key findings include:

- The general view emerging from the interviews (and literature) is that **it is difficult for councils to make risk informed decisions within the current legislative framework**. There was broad consensus that local government climate change adaptation decision making has to-date tended to be ad hoc and reactionary, and at times a secondary consideration.
- A key reason noted for this was the **lack of a clear mandate for adaptation planning and implementation within the current framework** – a lack of legal requirements and statutory backing needed to support effective risk informed decisions. It was noted that local government has limited powers to do what is required for climate adaptation (e.g. prevent development in areas that are likely to be at risk of inundation and flooding). The powers they do have are in bits and pieces across different legislation and collectively do not form a comprehensive framework to support risk informed decision making, and there are significant gaps.
- A key conclusion of this report was the **urgent need for a legislative framework** that mandates local government action on adaptation, provides clear processes for decision making, and includes a national framework for funding climate adaptation – including managed retreat. It was acknowledged that this is the anticipated role of the CCAA, but the detail of this key piece of legislation is still an unknown. There was a strong sense that a legislative framework would help to overcome a range of barriers currently being faced, including many of the following interrelated challenges that were highlighted during interviews:

- **Funding.** Most councils do not have the funding required to undertake climate change adaptation, particularly at a large scale. Councils currently rely on LTP funding for climate change work programmes and projects, and the competitive nature of accessing funding through the LTP, due to competing organizational priorities, was noted as a barrier to effective action. Some participants saw funding as the most critical issue, noting challenges such as low ratings base and the scale of potential managed retreat an associated cost. All interviewees noted that new sources of funding would be needed for adaptation, including for understanding risks, adaptation planning and community engagement, capability building, and on the ground action – including managed retreat. There is currently no national funding framework for climate adaptation, which is raising questions over who is going to pay for it, where that money comes from and how the money will be used. Clarity around how costs will be shared (landowners, local government, central government) will also be required. Many interviewees suggested **potential new funding mechanisms**, for example targeted rates, a levy that works similar to EQC and ACC levies, or some form of credit system.
- **Lack of technical resource, capacity and capability.** Climate adaptation is complex, and there are huge information gaps and limited risk assessment capabilities. In many instances, elected members and local government staff do not have the specialist knowledge to support adaptation work programmes, and funding to contract in specialist expertise can be hard to secure. The need for more focused tertiary training in this field was noted, as was the need for in-house training for staff and councilors, as well as more knowledge sharing across councils. Large BAU workloads and professional churn add to capacity and capability challenges.
- **Politics and the political cycle.** Climate change adaptation is a long-term project that is in direct conflict with the short political cycle. The frequency of the electoral cycle means that many elected members are focused on the here and now, and responding to rate payer pressure to improve their chances of re-election, rather than making climate adaptation decisions that endure beyond the current electoral cycle. Short political cycles are also a challenge when it comes to elected members developing knowledge in this area. The political landscape more broadly hinders the ability of councils to make risk informed decisions, including community expectations around property rights – this is hard for councils to navigate without a comprehensive and clear legislative framework.
- **Fear of litigation** particularly when it comes to private property rights and how councils treat and zone land and manage infrastructure. The lack of mandate or standardised framework heightens the litigation risk felt by councils. The current lack of clarity in the legal framework means councils are often challenged by wealthy landowners or developers. Litigation risk influences decision making significantly and often results in no adaptation action being undertaken, or a watered-down version.

Other themes include:

- **Consensus on the importance of local risk assessment and strategies.** The presence and scope of local and regional climate change risk assessments, adaptation plans and strategies currently vary between local authorities. Some have both risk assessments and adaptation plans, while others are at the early stages of preparing a risk assessment to then inform an adaptation plan. All interviewees noted the importance of local/regional risk assessments and adaptation strategies, even though there is currently no statutory requirement for these.

- **Adaptation planning should be led by local government, but a stronger Central Government role is needed.** There was a clear sense that central government needs to play a stronger role on adaptation, providing a clear mandate and framework, as well as resourcing (particularly technical inputs), coordination and funding. But at the same time, it was also noted that this must be balanced with flexibility to support appropriate local responses. There was general consensus that climate adaptation planning should be led by local government, but that this needs to be mandated by central government, and requires central government resourcing support.
- **Building climate adaptation expertise.** Technical expertise in this space was identified as a key issue. This was discussed in the context of ensuring that universities are providing the right type of training so that people working in this field have the right skill sets, as well as training in house –in terms of staff, decision makers and elected members. There was reasonable support for having a centralised pool of experts that could be accessed by local government, on the basis that the work is led locally.
- **Implementation of strategies and plans is challenging.** Several interviewees noted that while putting a plan in place was achievable, the real hurdle was implementing on-the-ground action. This includes challenges associated with getting buy-in from asset managers to implement adaptation strategies, as well as the difficulty of defining key triggers for action and against which monitoring can be undertaken.
- **Resource management reforms.** The CCRA was commonly noted as a major gap that needs to be addressed with urgency. Without this critical piece of legislation, including a decision-making framework and funding regime, there was a general view that it is very hard to move forward with adaptation planning. Aside from this missing piece, many interviewees saw the reforms as positive, particularly the SPA and regional planning approach including in relation to climate change adaptation.
- The **varying scale of adaptation planning** was discussed by several interviewees. It was acknowledged that it is one thing to prepare and implement an adaptation plan for a small coastal settlement, it is another to undertake the same process at a city scale. Linked to this is the challenge of **implementing an adaptation plan** once it has been developed.
- **Mātauranga Māori.** The value of incorporating Mātauranga Māori in climate adaptation planning was widely supported in both the interviews (and literature). The literature offered some suggestions of potential approaches to support this. It can be difficult to balance / provide for cultural values when making decisions about adaptation planning. Interviewees noted some challenges integrating te ao Māori and cultural values into adaptation planning in the absence of central government guidance and support.
- **Mixed views on DAPP.** Mixed views were expressed on the usefulness of DAPP. One council interviewed had followed it fully and had found it to be useful. Others were of the view that it is not fit for purpose within the New Zealand context, both in terms of the scale of the process and lack of alignment with current regulatory regimes.
- **The NAP.** The NAP was typically viewed as having missed the mark in terms of delivering a real plan for climate adaptation, although some acknowledged it is a useful starting point at least.
- **Recent weather events.** Many interviewees noted it had sharpened the focus, showing what can happen when people are located in at risk places. For several it confirmed the view of the

importance of climate change adaptation planning. There was one example where it hadn't really changed council thinking (potentially arising from proximity to the cyclone. i.e. not located in an area that was cyclone affected). The weather events also highlighted how councils are currently reactionary in this space, and needed to move towards proactive approach.

Overall:

All in all, the consensus is that no one is finding this an easy issue to address. It was generally agreed that local government isn't doing enough or moving quickly enough, however this is not for a lack of desire to do so. It was acknowledged by many that if we keep going in this way, climate change adaptation will never be achieved.

There are opportunities to address this big challenge – a clear mandate from central government will be welcomed, along with a framework, guidance, training and funding. With these in place some of the other challenges such as governance and ability to make longer term decisions should follow.

10.0 Conclusion

There is a sound understanding of the importance of climate change adaptation planning and implementation and a strong desire within local government to embed adaptation into all business-as-usual workstreams. Despite this, local government adaptation action is highly varied; councils are not well supported to undertake robust, effective and meaningful climate change adaptation. The current legislative framework is ad hoc and lacks clear policy direction mandating and providing a clear framework for climate adaptation action. This is resulting in significant barriers in terms of local government governance, funding and delivery arrangements for climate adaptation.

All interviewees commonly agreed that there are clear opportunities to improve local government climate change adaptation governance, funding and delivery arrangements. This includes, for example, mandating climate change adaptation; developing a standardised climate adaptation framework; setting clear national policy direction to guide decision-making; and establishing a national body of experts to support local government. Alongside these opportunities, going forward, a clear funding framework will be critical to supporting local government undertake climate change adaptation.

11.0 Bibliography

- Allan, S., Clarke, L., Lawrence, J. (2021). *Using current legislative settings for managing the transition to a dynamic adaptive planning regime in New Zealand*. Resilience to Nature's Challenges National Science Challenge - Enabling Coastal Adaptation Programme. <https://resiliencechallenge.nz/wp-content/uploads/Enabling-Coastal-Adaptation-FINAL011121.pdf>
- Allan, S., Lawrence, J., Wreford, A. (2022). Adapting to Avoidable and Unavoidable Climate Change. What Must Aotearoa New Zealand Do? *Policy Quarterly*, 18(2), 51-60. <https://doi.org/10.26686/pq.v18i2.7575>
- Allan, S., Larsen, H., Reisinger, A., Wratt, D. (2011). Chapter 22. The Role of Local Government in Adapting to Climate Change: Lessons from New Zealand. *Climate Change Adaptation in Developed Nations*, 42(n.d.). <https://link.springer.com/book/10.1007/978-94-007-0567-8>
- Bell, R., Boston, J., Hardcastle, M., Kool, R., Lawrence, J., Olufson, S., Stroombergen, A. (2020). Implementing Pre-Emptive Managed Retreat: Constraints and Novel Insights. *Current Climate Change Reports* 6(n.d.), 66-80. <https://doi.org/10.1007/s40641-020-00161-z>
- Berrang-Ford, L., Ford, J. (2011). *Climate Change Adaptation in Developed Nations*, 42(n.d.). <https://link.springer.com/book/10.1007/978-94-007-0567-8>
- Birdsong, B. C. (2002). Adjudicating Sustainability: New Zealand's Environmental Court. *Ecology Law Quarterly*, 29, 1-70.
- Boston, J., Konlechner, T., Maher, S., Peart, R. (2023). *Principles and Funding for Managed Retreat. Working Paper 1*. Environmental Defence Society Incorporated. https://eds.org.nz/wp-content/uploads/2022/11/Climate-Adaptation-Working-Paper-1_FINAL.pdf
- Boston, J. (2023). *Funding Managed Retreat. Designing a Public Compensation Scheme for Private Property Losses: Policy Issues and Options*. Environmental Defence Society Incorporated. <https://eds.org.nz/wp-content/uploads/2022/11/Jonathan-Boston-Funding-Managed-Retreat-Final.pdf>
- Cameron, C., Ide, G., Lash, A., Lawrence, J., McGlinchey, L., Sullivan, F. (2015). Adapting to changing climate risk by local government in New Zealand: institutional practice barriers and enablers. *Local Environment*, 20(3), 298-320. <https://doi.org/10.1080/13549839.2013.839643>
- 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. <https://environment.govt.nz/assets/publications/climate-change/Report-of-the-Expert-Working-Group-on-Managed-Retreat-updated-25-08-2023.pdf>
- Gibbs, M. (2016). Why is coastal retreat so hard to implement? Understanding the political risk of coastal adaptation pathways. *Ocean & Coastal Management*, 130(n.d.), 107-114. <http://dx.doi.org/10.1016/j.ocecoaman.2016.06.002>
- Hannah, C., White, I., Glavovic, B. (2021). Managed retreats by whom and how? Identifying and delineating governance modalities. *Climate Risk Management*, 31(n.d.), n.d. <https://doi.org/10.1016/j.crm.2021.100278>
- Hannah, C., White, I., Glavovic, B. (2017). *Managed retreat in New Zealand: revealing the terminology, approaches and direction of local planning instruments*. National Science Challenge: Resilience to Natures Challenges, University of Waikato, New Zealand. <https://resiliencechallenge.nz/wp-content/uploads/Hanna-C.-White-I.-Glavovic-B.-2017-Managed-retreat-in-New-Zealand-r.pdf>

Iorns, C. (2019). *Treaty of Waitangi duties relevant to adaptation to coastal hazards from sea-level rise*. Deep South National Science Challenge, Victoria University of Wellington. <https://deepsouthchallenge.co.nz/wp-content/uploads/2020/12/Treaty-of-Waitangi-duties-relevant-to-adaptation-to-coastal-hazards-from-sea-level-rise.pdf>

Lawrence, J., White, I. (2020). Continuity and change in national riskscape: a New Zealand perspective on the challenges for climate governance theory and practice. *Cambridge Journal of Regions, Economy and Society*, 13(n.d.), 215-231. <https://doi.org/10.1093/cjres/rsaa005>

Ministry for the Environment. (2020). *Case study: Challenges with implementing the Clifton to Tangoio Coastal Hazards Strategy 2120*. Ministry for the Environment and Hawke's Bay Regional Council. <https://environment.govt.nz/assets/Publications/Files/challenges-with-implementing-the-Clifton-to-Tangoio-coastal-hazards-strategy-2120-case-study.pdf>

Oppenheimer, M., B.C. Glavovic, J. Hinkel, R. van de Wal, A.K. Magnan, A. Abd-Elgawad, R. Cai, M. Cifuentes-Jara, R.M. DeConto, T. Ghosh, J. Hay, F. Isla, B. Marzeion, B. Meyssignac., Z. Sebesvari. (2019). *Chapter 4: Sea Level Rise and Implications for Low-Lying Islands, Coasts and Communities*. IPCC. https://www.ipcc.ch/site/assets/uploads/sites/3/2019/11/SROCC_Ch04-SM_FINAL.pdf

Peart, R., Tombs, B. (2023a). *Current Legislative and Policy Framework for Managed Relocation*. Working Paper 2. Environmental Defence Society Incorporated. <https://eds.org.nz/wp-content/uploads/2023/05/Climate-Adaptation-Working-Paper-2-FINAL.pdf>

Peart, R., Tombs, B. (2023b). *Current Legislative and Policy Framework for Managed Relocation*. Appendix to Working Paper 2: Relevant Provisions in Legislation and Policy. Environmental Defence Society Incorporated. <https://eds.org.nz/wp-content/uploads/2023/05/Climate-Adaptation-Working-Paper-2-FINAL.pdf>

Resource Management Review Panel. (2020). *New Directions for Resource Management in New Zealand*. Resource Management Review Panel. <https://environment.govt.nz/assets/Publications/Files/rm-panel-review-report-web.pdf>

Saunders, W. (2017). *Setting the Scene: The Role of Iwi Management Plans in Natural Hazard Management*. GNS Science. Doi: 10.21420/G26D2V

Tonkin & Taylor Ltd. (2022). *Implementation approaches and indicative costs for planned retreat*. Hawke's Bay Regional Council. <https://www.hbcoast.co.nz/assets/Uploads/Planned-Retreat-Implementation-Costs-Report-2022.pdf>