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VIA EMAIL, fe@parliament.govt.nz
The Finance and Expenditure Select Committee
Parliament Buildings
WELLINGTON

Tēnā koutou,

Tasman District Council submission on the Select Committee inquiry into climate adaptation

Thank you for the opportunity to participate in the Select Committee's inquiry into climate adaptation.

The Council's submission is guided by the questions posed by the Finance and Expenditure Committee. This submission is in addition to the Council's previous submission provided for the Inquiry on Managed Retreat, run by the Environment Select Committee.

Local government is a crucial partner in facilitating and delivering adaptation measures to natural hazards and climate change risks. We suggest the Select Committee directly engage with councils and communities involved in adaptation planning. We are particularly concerned with the current climate governance arrangements, including local-level autonomy, integration between national and local, funding resources, and liability risk.

Adopting a system-wide adaptation framework will clarify the roles and responsibilities of local government, communities, iwi partners, and the private sector. It will also address appropriate funding, adaptation indicators, and national guidelines for effective planning. This approach ensures flexibility, sustainable, and proactive decision-making, preparing Aotearoa New Zealand to better adapt to natural hazards and the effects of climate change.

We support the submissions of Te Uru Kahika – Regional and Unitary Councils of Aotearoa and Taituarā – Local Government Professionals Aotearoa.

We would like to be heard in support of our submission if there is an opportunity to do so.

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Nāku noa, nā



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Tasman District Council submission to the Finance and Expenditure Committee inquiry into climate adaptation
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About Tasman District Council

1. Tasman District Council (the Council) is a unitary council located near the top of New Zealand's South Island. The district's population of 57,807 residents (2023 census) is projected to grow at 1.2% per annum, in a mix of rural and township settlements.
2. Our residents are located along over 700 km of coastline and are vulnerable to natural hazards and the effects of climate change. These include sea-level rise, coastal hazards, river and overland flow flooding, drought, wildfires, earthquakes, liquefaction, and slope instability.

Key messages

3. An effective adaptation framework must address five main issues:
 - i. *System thinking approach*: including roles and responsibilities, alignment of legislation, information, and tools available.
 - ii. *Cost-sharing*: involving financing and transformation efforts.
 - iii. *Adaptation mechanisms*: methods for avoiding maladaptation risk in future developments, reducing risks associated with existing development, and adapting through pre- and post-event recovery.
 - iv. *Legislative consistency* to support planning, investment, and proactive decision-making.
 - v. *Local government exposure to liability*: action is required to manage local government liability exposures.
4. The first two challenges fall within the scope of the inquiry. The last three are crucial considerations when designing an effective Adaptation framework. We urge the Committee to consider how objectives and principles can support the third, fourth and fifth. Key tools include spatial planning and strengthening climate adaptation planning with emergency management planning.
5. Managed retreat, while challenging for affected landowners, councils and the wider community, is sometimes necessary, as shown by past experiences. Ad hoc decision-making after extreme events is unsustainable and leads to maladaptation. Retreat of properties after a natural hazards event is a crucial yet underprepared reactive response. Therefore, the Council recommends that a system-thinking approach is employed to ensure that councils and communities have the legislative framework and tools available, including ensuring that proactive managed retreat is an option for properties that are vulnerable to significant risks from natural hazards or longer term effects of climate change.
6. The Council recommends that through this inquiry the Committee considers liability protection for councils in relation to unintended consequences from adaptation activities. For example, end-of-wall effects from privately built coastal protection structures on Council-administered land, or stop bank failure. Enabling communities to undertake protection/mitigation activities may result in councils being exposed to litigation risks if these mitigation structures fail and cause damage to properties in the future. Clear guidance is crucial in navigating these complexities and ensuring responsible decision-making.

7. It is important that consent processes do not hinder the implementation of adaptation measures. This means that while obtaining necessary consents and adhering to regulatory requirements is crucial, these processes should not unduly delay or restrict the implementation of effective solutions. Additionally, a range of solutions should be equally considered to ensure that the right solution is implemented in the right place. This balance allows for timely, efficient responses and fosters innovation, ensuring the most suitable adaptation measures are implemented without unnecessary procedural obstacles.
8. Central government's role will depend on the various circumstances of each region and community. Tasman District (both Council and its communities) is financially and resource constrained, due to
 - the expansive geographical area of our district
 - small population and rating base
 - a number of towns and villages requiring considerable resources to maintain bespoke infrastructure services
 - development is located on low-lying flood plains and/or adjacent to the coast, vulnerable to natural hazards and weather-related effects of climate change including sea-level rise – Tasman's adaptation options may need to include potentially costly and sophisticated engineering solutions

These factors create unique challenges for Tasman that will necessitate substantial investment support from central government to effectively implement climate adaptation measures.

9. In contrast, other regions of New Zealand with larger populations and more robust economic bases might be less reliant on central government investment for their adaptation responses. These regions can potentially leverage economies of scale and local funding sources to support climate-resilient infrastructure projects, providing them with greater flexibility and autonomy in planning and implementing adaptation strategies. Therefore, it is crucial for central government to adopt a tailored approach, recognising the specific needs and constraints of each region to ensure effective and equitable climate adaptation across New Zealand.
10. Both the Crown and local government must adhere to the principles of the Tiriti o Waitangi, ensuring the adaptation system meets iwi/Māori needs. This involves genuine partnership with iwi, hapū, and marae, essential for all regional and unitary councils and achieving positive community outcomes.
11. In the context of climate change a systems thinking approach is crucial. It requires us to look at the big picture and understand how environmental systems are intertwined with social, cultural, economic, and political systems. Ensuring adequate preparation for relocation and managed retreat and investing in resilient infrastructure are key. Collaborating with iwi/Māori communities will help address climate adaptation challenges effectively and equitably.

The nature of the climate adaptation problem

12. New Zealand faces escalating vulnerability and risks from natural hazards, impacting all facets of society including the economy, infrastructure, human health, rural communities, iwi and cultural sites. Climate change exacerbates water scarcity, ecosystem disruption, and biodiversity loss.
13. The climate adaptation problem is inseparable from decarbonisation, given New Zealand's global emissions contribution. Adaptation and mitigation are intertwined in both urban and rural land-use decisions. Effective, fair change is crucial, minimising transition costs and capitalising on new

market opportunities. It is also inseparable from biodiversity loss. We must look to nature-based solutions both for lower-cost, more resilient solutions and for co-benefits.

14. Flexibility and innovation are essential, with outdated approaches proving inadequate and costly. We must either adapt to climate change or endure escalating consequences. A clear vision and continued central government cross-party support are vital for enduring system-level change. The adaptation problem also extends into how to achieve change – and how to do so effectively and fairly, while minimising transition costs and realising the opportunities presented by new markets to achieve ‘win-wins’ along the way.
15. Climate change is a critical strategic challenge for our Council and the communities we represent. Addressing climate change necessitates collaborative approaches that transcend traditional boundaries. Recognising its broad implications, including environmental deterioration and socioeconomic inequities, emphasises the importance of strategic investment in resilient infrastructure at the local level.
16. A national adaptation framework (framework) should aim to improve the enabling environment for adaptation through ongoing engagement with civil society, the private sector, local government, and the research community. Central investment support can help to reduce climate change, boost economic growth, and promote social progress by encouraging sustainable development.
17. Adapting to a changing climate is a whole-of-government and whole-of-society challenge that affects all New Zealanders. Despite efforts to reduce greenhouse gas emissions, there are unavoidable impacts of climate change that are occurring now and will continue to unfold in the medium-to long term, particularly sea-level rise.
18. The framework should cover the concept of maladaptation as well as other key concepts that inform the framework such as climate resilience, just resilience, incremental adaptation and transformational adaptation. A comprehensive framework that clearly articulates the principles and related regulations for determining who pays for what, when, and on what basis.

Clear guiding principles for adaptation

19. Guiding principles, emphasising the urgency for a more intelligent, rapid, and far-reaching adaptation framework are key. We recommend that these principles include a pathway planning approach, which considers a variety of potential future warming and impact scenarios, to ensure flexible and effective adaptation measures.
20. Tasman District Council is actively addressing climate change through our adaptation planning and service delivery work programmes. Our work includes:
 - Providing mitigation measures for flooding and coastal erosion through a range of hard protection structures and nature-based solutions.
 - Through our resource and building consent decision-making functions ensure we are enabling climate-resilient development.
 - Engaging with iwi and communities to support broad-based climate action.
21. For councils to be most effective, they need to be empowered with better-connected institutional responsibilities and tools, both regulatory and non-regulatory, across climate change, natural hazards, and resource management. Clarity about their roles and how they align with others, along with appropriate resourcing, is essential.

22. Central government should set better (not necessarily more) regulations to avoid perverse outcomes, particularly balancing housing affordability with hazard exposure and ensuring utility providers align with regional resilience initiatives. Additionally, the unique contributions of Māori, including the role of marae in extreme weather events and their kaitiaki role for natural ecosystems, should be better recognised and supported in institutional and funding arrangements.
23. Recent reviews on roles and responsibilities during extreme weather events align with the current inquiry's goals. Effective climate adaptation reduces risks from such events, and recovery from them offers opportunities for further adaptation. Clear leadership across agencies and policy domains is crucial for delivering improvements and ensuring community resilience.
24. Establishing clear guiding principles for adaptation is indeed a crucial step towards creating a robust statutory framework. By prioritising the development of these principles, Aotearoa New Zealand would be laying the foundation for a comprehensive approach to adaptation that can withstand various challenges and changes over time.
25. We believe legislation can be a powerful tool to ensure that these principles are not only established but also implemented effectively. It can provide a legal framework for decision-making and help institutionalise the principles, ensuring they guide future actions and policies consistently.
26. In developing these guiding principles, it's essential to engage stakeholders from various sectors and levels of governance to ensure that the framework reflects diverse perspectives and priorities. Additionally, incorporating scientific evidence and expertise can help ensure that the principles are based on sound knowledge and understanding of climate impacts and adaptation strategies.
27. Overall, by focusing on both the development of guiding principles and the potential need for legislation, Aotearoa New Zealand will be taking a proactive and comprehensive approach to adaptation planning, which is essential for building resilience in the face of climate change.
28. Local government is a crucial partner in adaptation planning. We encourage collaboration with our Council and the wider local government sector to ensure a coordinated, comprehensive response to climate adaptation across all levels of government and society. Local government is at the forefront of developing adaptation plans to enhance community resilience, but these efforts require substantial coordination, funding, and resources.
29. Adequate resourcing is essential to support local government in their critical role, ensuring we can effectively implement adaptation strategies.

Frameworks for investment and cost-sharing

30. As extreme weather events become more frequent and severe, ad hoc recovery responses and contestable funding are insufficient in the aftermath of such events. Clear criteria for funding and cost-sharing are necessary to enable local government and individuals/communities to make informed decisions and plan, supporting nationally consistent levels of service and potentially depoliticising these decisions.
31. Submissions to the Environment Committee inquiry highlight that councils lack the financial capacity to address local adaptation needs on their own. Fit-for-purpose funding and financing mechanisms are needed to support local investments that reduce natural hazard risks.

32. We welcome the Government's investment in climate-resilient infrastructure through Budget 2024 and see an ongoing need for such co-investment, ideally linked to clear and transparent funding criteria. This is crucial to protect vital assets and lifelines of our economy like roads, railways, substations, communication towers, landfills, airports, schools, and hospitals. Co-investment by central and local government underscores the importance of these assets to community and economic functioning.
33. Equitable cost-sharing arrangements are also required for other responses where "protect" is no longer viable. Funding models must address the distinctive needs of Māori, integrate Mātauranga Māori, Māori-led initiatives, and support Māori participation in climate change decision-making. There is a risk that cost-of-living pressures, competing priorities, and a weak economy might become excuses for not taking necessary climate adaptation actions. However, deferred costs are not costs avoided.
34. We support the establishment of a Climate Adaptation Fund grounded in clear and transparent criteria, aligned with specified design principles. Pre-funding of the Fund is crucial for timely and effective climate resilience measures. Increasing emissions unit prices significantly will bolster adaptation efforts and taxing emissions outside the trading scheme to fund mitigation and adaptation initiatives. These measures are essential for robust climate adaptation financing and achieving sustainable resilience across communities and sectors.
35. We agree with the recommendation from Taituarā that there should be a fair and equitable funding split between central and local government for climate change adaptation implementation, not just managed retreat, that incentivises early action.
36. We agree with the recommendation from Taituarā that some form of differential within the funding split – or as a top up – for vulnerable communities and councils with a limited ability to pay should be applied.

Core objectives and scope for the adaptation framework

37. We support a decentralised approach¹ to climate change adaptation, where local governments and communities lead the planning and implementation of adaptation strategies. This approach acknowledges that local authorities are best positioned to understand the unique risks and needs of their specific regions. By empowering local governments, we can tailor adaptation measures to effectively address local climate impacts.
38. However, successful decentralisation requires robust financial support from central government. Adequate funding is essential to equip local authorities with the resources needed for comprehensive risk assessments, community engagement, and the execution of adaptation projects. This financial support should cover infrastructure upgrades, environmental protection efforts, emergency preparedness initiatives, and ongoing monitoring and evaluation of adaptation measures.
39. Central government can also provide technical assistance, policy guidance, and access to advanced climate models and data, further enhancing the capacity of local authorities to manage climate risks. Additionally, fostering partnerships between local governments, private sectors, and civil society organisations can leverage diverse expertise and resources.

¹ CAB-400, p4.

40. By combining local knowledge and central funding, a decentralised approach ensures that adaptation efforts are both context-specific and well-resourced, leading to more resilient and sustainable communities prepared to face the challenges of climate change.
41. In practice, the implementation of adaptation decisions often unfolds at the local level, where councils play a primary role in decision-making. This decentralised approach recognises that communities are on the front lines of climate impacts and are best positioned to tailor responses to their specific needs and circumstances. By empowering councils with primary responsibility, we leverage local knowledge, resources, and expertise, fostering a more nuanced, and effective adaptation process.
42. In particular, adaptation planning needs to be agile, flexible, and innovative to effectively address the unpredictable and evolving nature of climate impacts. This approach allows for rapid adjustments, tailored local solutions, and the incorporation of new technologies and strategies, ensuring communities can respond proactively to emerging challenges.
43. Furthermore, local governance structures are often more agile and responsive, enabling swift action in the face of evolving climate challenges. By decentralising decision-making, we promote community engagement and ownership, enhancing the legitimacy and effectiveness of adaptation efforts. Additionally, councils are well-placed to coordinate with other local stakeholders, such as businesses, non-profits, and community groups, fostering collaboration and synergy in adaptation initiatives.
44. While local autonomy is essential, it is crucial to align with overarching guiding principles and national strategies to maintain coherence and effectiveness across all levels of governance. The framework must outline how New Zealand can adapt to the inevitable effects of climate change and enhance its resilience to climatic challenges. We support the proposed objectives guide (CAB 400, para 25 page 4) and recommend adding the following language for consideration: prioritising better, faster, and more systemic adaptation activities, as well as stepping up (elevating) national action on climate change adaptation. We concur that “finite Crown and council budgets means government buying out properties is not a viable long-term solution to adaptation” (CAB-400, para 23, p. 4). It is essential to communicate this to property owners promptly to inform their decisions regarding property purchases and divestments, including disinvestment decisions by private individuals.

Climate risk and response information-sharing

45. We view regional-scale spatial plans as essential for communicating areas vulnerable to natural hazards and longer-term climate change effects (such as sea-level rise) and promoting climate-resilient developments in appropriate locations. The Nelson Tasman Future Development Strategy 2022 is an example of spatial planning that incorporates both climate change mitigation and adaptation measures in the decision-making process.
46. Communities may make different decisions about risk tolerance and response but should have access to consistent information. Regional and unitary councils manage extensive environmental and hazard data, including commissioning data from Crown Research Institutes and other agencies. However, nationally there are systemic issues with the availability, consistency, and accessibility of climate risk information. Ensuring Mātauranga Māori influences these datasets and addressing data sovereignty concerns are also necessary.

47. Information must be timely and relevant to its audience. Improved tools are needed to support local decision-making and provide property owners with hazard information. Achieving this without overburdening taxpayers and ratepayers requires investment in data systems.
48. Through a number of council statutory functions (e.g. resource and building consent processes, civil defence, LIMs/PIMs), councils provide natural hazards/climate change education, advice and information to landowners and the wider community. Nationally, despite an increased awareness of natural hazards and climate change effects, some in the community do not fully grasp their specific risks. Understanding property-related climate risk information is crucial for current and prospective property owners and enabling community resilience.
49. Weather-related natural hazard events are becoming more frequent and severe because of a changing climate. Over time, property owners in vulnerable locations subject to natural hazards may experience a reduction in their property value or insurance retreat, which may have implications for bank mortgages. Costly adaptations may be required as a result, posing additional and significant financial and logistical burdens. Additionally, a natural hazard exposure on one property (e.g. slope instability) may cause unforeseen financial and insurance complications for adjacent property owners. Insurers assess risk based on surrounding conditions; nearby natural hazard exposure may increase the insurance risk profile for adjoining neighbours. This may leave owners with a range of issues such as high insurance premiums/uninsurable, financial vulnerability, reduced property values, deters investment, and complicates rebuilding. Such interconnected issues affect community resilience and economic stability, particularly in areas prone to natural hazards. In these circumstances we stress the importance of collaboration between government and the insurance industry to ensure that insurance remains available and affordable for all New Zealanders.
50. Effective climate adaptation must consider human behaviour and the various influencing factors, including societal norms and community perceptions, to improve our collective response to climate change. Questions about property loss, the role of marae in disaster response, and community perceptions impact these decisions. Therefore, our collective response to climate change can improve by carefully considering the types of information shared and the sources of this information.

Integration between national and local government

51. The Adaptation Framework should be explicit about the intended role of local government and how this supports a nationally coherent approach that considers system-wide opportunities and fairly distributes the benefits. Local government should be enabled by central government to take more ambitious opportunities locally and to apply locally relevant decision frameworks where suitable.
52. Whilst there are recognised challenges, this can be supported both by vertical (Government /Councils) and horizontal (Councils/communities/iwi/businesses) collaboration, largely independent of central government action, or (ideally) enabled by strategic support and coordination from central government. International examples demonstrate that where local level autonomy has not been enabled, combined with other factors (such as narrow focus of objectives), this has resulted in a lack of effective action from certain climate issues. Vertical integration, between central and local government, and coordination are key to ensuring effectiveness and clear collaboration.
53. We would welcome the adoption of the United Arab Emirates (UAE) Framework for Global Climate Resilience, which guides efforts to reduce vulnerability, enhance adaptive capacity, and

protect livelihoods, economies, and nature. It aligns with the Paris Agreement, incorporates inclusive adaptation, and values Indigenous perspectives, supporting the global adaptation goal and sustainable development. The Government is seeking advice on the design of a taxonomy for sustainable finance.

54. In financing adaptation and resilience, we recommend the development of Guidelines for Adaptation and Resilience Finance that would offer clarity and transparency to accelerate investment. The guidelines would establish a common classification or taxonomy for adaptation and resilience, with financeable themes and activities, simplifying decision-making through best practice principles and guidance. It identifies priority investments, emphasising co-benefits like emissions reductions and nature conservation, along with adaptation and resilience benefits.

Answering questions raised by the Finance and Expenditure Committee

Question 1: What would be a durable, affordable, and fair approach to adaptation for the existing built environment (i.e., where people live and work) in the future? How could that approach be phased in over time?

Creating a durable, affordable, and fair approach to climate adaptation for the existing built environment requires a comprehensive framework that considers the varying needs and vulnerabilities of different communities.

A durable, affordable, and fair climate adaptation approach requires comprehensive risk assessments, inclusive planning, integrated solutions, equitable funding, capacity building, and continuous monitoring. Implement in phases: start with foundational planning and pilot projects, then expand to larger initiatives and full integration into all planning and development aspects. This phased approach ensures gradual scaling, enhancing resilience over time, with benefits equitably shared across all communities. International best practice suggests the below.

Approach:

Effective risk management and resilience-building involve several critical steps. First, updating or conducting comprehensive risk and vulnerability assessments is essential, prioritising high-risk areas to ensure resources and efforts are directed where they are needed most. Inclusive planning is another key aspect, requiring the engagement of communities, iwi, and local government in a collaborative process. This ensures that diverse perspectives and local knowledge inform the planning process, fostering more robust and community-supported outcomes.

Implementing integrated solutions is crucial for comprehensive risk mitigation. This involves combining structural measures like flood defences with non-structural approaches like early warning systems and nature-based solutions. Such a multifaceted approach enhances overall resilience and adaptability to various hazards.

Equitable funding strategies must be developed to support these initiatives. This can include grants, public-private partnerships, and other innovative financing mechanisms that ensure fair distribution of resources and support for vulnerable communities. Building capacity and raising awareness through training programmes and public awareness campaigns are vital for empowering individuals and communities to understand risks and take proactive measures.

Monitoring and flexibility are essential components of an effective adaptation framework. Establishing mechanisms for ongoing evaluation and adaptive management allows for continuous improvement and the ability to respond to new information and changing conditions. This dynamic approach ensures that the approach remains relevant and effective over time.

By integrating these elements—risk assessment, inclusive planning, integrated solutions, equitable funding, capacity building, and adaptive management—communities can develop robust strategies to mitigate risks and enhance resilience in the face of various challenges.

Phased Implementation:

We suggest a national phased approach to climate adaptation to ensure a smooth and effective transition towards increased resilience and sustainability. This approach allows for gradual scaling, learning, and adaptation, ensuring that efforts are well-coordinated and that resources are allocated efficiently. Some of the suggested steps are illustrated below:

- Planning and Foundation (Years 1-2): Conduct assessments, establish a task force, secure funding, and start public awareness initiatives.
- Pilot Projects (Years 3-5): Implement and refine pilot projects in high-priority areas.
- Scaling Up (Years 6-10): Expand successful projects and begin larger infrastructure initiatives.
- Mainstreaming (Years 11-20): Integrate adaptation into all planning aspects and ensure new developments are resilient.
- Long-term Sustainability (Beyond Year 20): Maintain adaptation measures, foster resilience culture, and promote ongoing innovation.

This strategy ensures gradual, effective, and equitable enhancement of climate resilience across government, councils, iwi, landowners and communities.

A comprehensive National Adaptation framework should set up New Zealand’s adaptation vision, guiding principles, guidance for mainstreaming, cultural and enabling environment, stakeholders and roles, requirements for sectoral and local policymakers, adaptation approach to emergency planning, management and evaluation, and future adaptation research priorities.

Key points: We recommend focusing on a systemic climate adaptation approach to reduce vulnerability, enhance adaptive capacity, integrate climate considerations in decisions, and guide investments.

Question 2: What outcomes should such an approach to adaptation lead to? What are the highest priorities to achieve?

The approach to climate adaptation should aim for several key outcomes. These include increased resilience, equitable distribution of adaptation benefits, sustainable development, economic stability, effective governance, enhanced awareness and capacity, and continuous improvement. Achieving these outcomes requires prioritising comprehensive risk assessments, inclusive planning, adequate funding and resources, implementation of pilot projects, integration into policy and planning, capacity building and education, monitoring and evaluation, and nature-based solutions.

The highest priorities to achieve these outcomes include conducting detailed risk assessments, engaging all stakeholders in planning, securing adequate funding, implementing pilot projects, integrating adaptation into policy and planning, building capacity, and establishing robust monitoring and evaluation systems. By focusing on these priorities, communities can become more resilient, sustainable, and equitable, ensuring they are well-prepared to face the challenges posed by climate change.

The National Adaptation Framework (NAF) should create a unified approach involving both government and society to adapt to climate change. It should outline how various sectors and local authorities can implement adaptation measures to minimise New Zealand's vulnerability to climate change's adverse effects while taking advantage of any beneficial impacts. We believe the NAF should emphasise the importance of integrating adaptation strategies into all levels of policy making, infrastructure development, and local planning.

This approach should not only address immediate climate challenges but also promote long-term sustainability. We encourage that the first NAF to be developed as part of a long term, legally

mandated, and iterative process aimed at ensuring that New Zealand is prepared for the likely impacts of natural disasters and climate change.

Desired Outcomes of an Adaptation Approach

Effective climate adaptation strategies lead to significant benefits across multiple dimensions:

- **Increased Resilience:** Communities and infrastructure become more robust against climate impacts, enhancing their ability to withstand and recover from extreme weather events. Critical infrastructure, such as evacuation centres, community infrastructure, water and waste facilities, and transportation networks, is strengthened to ensure operational continuity during an event, thereby maintaining essential services and reducing disruptions.
- **Equitable Adaptation:** Efforts ensure that vulnerable populations, including low-income communities and marginalised groups, receive sufficient support and resources. This approach guarantees that adaptation benefits are distributed fairly, fostering resilience across all communities and preventing disparity in recovery and preparedness levels.
- **Sustainable Development:** Climate adaptation principles are embedded into all planning and development processes. New developments and intensification adhere to resilience standards, promoting sustainability and reducing future risks. This integration ensures that growth is sustainable and capable of withstanding future climate challenges.
- **Economic Stability:** Proactive adaptation measures help minimise economic losses from climate impacts. New job opportunities in adaptation-related fields also emerge, stimulating local economies and fostering economic resilience. This dual benefit supports both immediate recovery and long-term economic health.
- **Effective Governance:** Clear roles and responsibilities are established for central and local governments, communities, and the private sector. Enhanced collaboration and coordination among stakeholders at all levels of government ensure cohesive and comprehensive adaptation efforts. This organised approach streamlines decision-making and resource allocation.
- **Enhanced Awareness and Capacity:** Public awareness and understanding of climate risks and adaptation strategies are increased through education and outreach. Strengthening the capacity of local authorities and communities to manage and implement adaptation measures effectively ensures that actions are timely and appropriate.
- **Continuous Improvement:** Ongoing monitoring and evaluation of adaptation efforts are crucial to ensure their effectiveness. This dynamic approach allows for adjustments based on new information and changing conditions, encouraging innovation and research in climate adaptation strategies. This continuous improvement cycle ensures that adaptation efforts remain relevant and effective.

Highest Priorities to Achieve

To effectively develop an adaptation framework, prioritising the following areas is crucial:

- **Comprehensive Risk Assessments:** Detailed assessments are essential to identify the most pressing climate risks and vulnerabilities for different regions and communities. This step ensures that adaptation efforts are targeted and relevant, focusing on the most vulnerable areas.

- **Engagement and Inclusive Planning:** Involving all stakeholders, especially vulnerable communities, in the planning process ensures that their needs and perspectives are considered. This inclusive approach fosters community buy-in and enhances the relevance and effectiveness of adaptation strategies.
- **Funding and Resources:** Securing adequate and equitable funding mechanisms is crucial for supporting adaptation initiatives. Prioritising investments in high-risk and underserved areas ensures that resources are directed where they can have the most significant impact, addressing both immediate and long-term needs.
- **Implementation of Pilot Projects:** Starting with pilot projects allows for the testing and refining of adaptation strategies. This approach ensures that the strategies are effective and scalable before broader implementation, minimising risks and maximising the potential for success.
- **Integration into Policy and Planning:** Embedding climate adaptation into all levels of policy and planning ensures that it becomes a standard consideration in development decisions. This integration promotes sustainable development and ensures that future projects are resilient to climate impacts.
- **Capacity Building and Education:** Providing training and resources to local authorities and communities enhances their ability to implement and manage adaptation measures effectively. Building local capacity is essential for the sustained success of adaptation initiatives.
- **Monitoring and Evaluation:** Establishing robust systems for monitoring and evaluating adaptation initiatives ensures they meet their objectives and inform future actions. Continuous evaluation allows for adjustments based on new information and changing conditions, maintaining the effectiveness of adaptation efforts.
- **Nature-Based Solutions:** Prioritising nature-based solutions provides multiple benefits, including ecological enhancement and increased resilience. These solutions leverage natural processes to mitigate climate risks, offering sustainable and often cost-effective options for adaptation.

Key points: Effective climate adaptation involves risk assessments, inclusive planning, scenario planning, data, equitable funding, and nature-based solutions to ensure resilient, sustainable communities through central and local government collaboration.

Question 3: What do you think the costs will be? How should these various costs be distributed (eg amongst property owners, widely across New Zealanders, ratepayers, now and in future)? Should this distribution change over time?

Estimating the cost of climate adaptation for New Zealand involves multiple factors, including the extent of infrastructure upgrades, nature-based solutions, community and social measures, research and monitoring, and capacity building.

Global studies suggest that climate adaptation costs typically range from 0.1% to 0.5% of a country's GDP annually. For New Zealand, with an approximate GDP of NZD 320 billion, this translates to an annual cost of NZD 320 million to NZD 1.6 billion. Specific projects, such as relocation and managed retreat from flood-prone areas, could cost billions over decades.

In 2017, Treasury estimated that climate change insurance losses, primarily from floods and droughts, cost around \$120 million each decade for insured damages and \$720 million for economic losses (NIWA, 2018). Nevertheless, there is significant uncertainty around these cost estimates, and insured damages are likely to underestimate the full economic costs by neglecting economic activity losses caused by such disasters.

Furthermore, in 2023 Treasury and the Ministry for the Environment produced Ngā Kōrero Āhuarangi Me Te Ōhanga: Climate Economic and Fiscal Assessment 2023. That (unsurprisingly) concluded that “The economic and fiscal impacts of climate change are expected to be large, wide-ranging and unevenly felt.

We believe that the cost of climate adaptation in New Zealand is likely to be in the range of hundreds of millions to several billion dollars annually, depending on the scope and scale of the measures implemented. Adequate planning, alignment with national strategies, and sufficient funding from both local and central governments are essential to ensure effective and equitable adaptation efforts.

While these costs are substantial, the long-term benefits—reduced damage from extreme weather events, improved public health, and sustained economic productivity—can far outweigh initial expenses. Investing in climate adaptation can prevent more costly emergency responses and infrastructure repairs.

Key points: Climate adaptation in New Zealand may cost hundreds of millions to several billion dollars. Adequate planning, national alignment, and funding are essential, with long-term benefits outweighing initial expenses by reducing extreme weather damage and improving public health. Ensure funding to local governments is properly resourced for effective climate adaptation efforts.

How should these various costs be distributed (e.g. amongst property owners, widely across New Zealanders, ratepayers, now and in future)?

Distributing the costs of climate change adaptation: a fair and effective approach

The costs of climate change adaptation should be distributed in a way that balances fairness, efficiency, and effectiveness, ensuring that the financial burden is shared equitably among different stakeholders, including property owners, ratepayers, and the broader population, both now and in the future. Here are some key principles and strategies for distributing these costs:

- **Property Owners:** Contribute through targeted levies or special assessments, with incentives for individual measures like flood barriers.
- **Ratepayers:** Fund community projects via central government taxes, with progressive rate structures to avoid burdening low-income households.
- **National Funding:** Central government finances large-scale projects and establishes a national adaptation fund through taxation or specific levies.
- **Intergenerational Equity:** Use long-term financing mechanisms, such as bonds, for sustainable investments that benefit future generations.
- **Private Sector and Insurance:** Engage in public-private partnerships and develop insurance products to support adaptation efforts.
- **Equity Considerations:** Provide additional support to vulnerable communities and involve them in decision-making processes.

Action required to manage liability exposure

Natural hazards, exacerbated by climate change, present a major liability for local governments. For example, there is a risk of an allegation being made that a council will be accused of failing to take known climate change risks into account when making decisions or planning property damage and this could lead to a third-party suffering property damage or financial loss, leading to substantial legal costs for councils and potentially liability payments funded by ratepayers.

To this end:

- In addition to issues associated with breaching statutory duties as outlined above, common law is changing, and the Judiciary appear to have an increasing appetite to entertain arguments about climate change in common law.
- While current local government litigation mostly relates to decisions to limit development (short-term judicial review), in the future it seems likely to extend to the consequences of allowing development and failing to implement adaptation measures (e.g. from homeowners suffering physical and economic consequences of climate change in the longer term).
- While there have not been any large damages claims in relation to failure to implement adaptation measures in New Zealand to date, this may be only a matter of time.

Adopting a multi-faceted approach involving property owners, ratepayers, central government, the private sector, and consideration for intergenerational equity and vulnerable communities can distribute the costs of climate change adaptation fairly and effectively. This approach ensures that the financial burden is shared appropriately and that all stakeholders contribute to building a more resilient and sustainable future.

Should this distribution change over time?

The distribution of climate adaptation costs should be dynamic, evolving in response to changing risks, economic conditions, technological advancements, and social equity considerations. By periodically reassessing and adjusting the allocation of these costs, stakeholders can ensure a fair, effective, and sustainable approach to building climate resilience over time.

Key points: climate adaptation costs should be fairly distributed among stakeholders, balancing efficiency, equity, and effectiveness through various strategies like targeted levies, national, private, and innovating funding. This distribution should evolve to reflect changing conditions and priorities.

Question 4: What do you think is the critical information that will inform people and help them understand future risks, costs, and impacts?

Effectively informing people about future climate risks, costs, and impacts requires comprehensive, accessible, and actionable information. Key elements include:

- **Clear Communication of Climate Science:** Explain fundamental concepts and provide specific information on local impacts to help communities understand the relevance of climate change to their lives.
- **Risk Assessments:** Identify vulnerable areas and assess community-specific risks, including health, economic, and social impacts, to prioritise adaptation efforts effectively.

- **Economic Costs:** Detail direct and indirect costs of climate impacts, comparing the cost of inaction with investments needed for adaptation to emphasise long-term savings.
- **Adaptation and Mitigation Strategies:** Offer practical examples and success stories of adaptation measures, along with information on funding and resources available for implementation.
- **Interactive Tools and Visualisations:** Utilise interactive models, impact visualisations, and decision support tools to help individuals and policymakers assess risks and explore adaptation options.
- **Public Engagement and Education:** Conduct workshops, educational campaigns, and involve diverse stakeholders to raise awareness, build climate literacy, and foster community involvement.
- **Policy and Governance Information:** Explain regulatory frameworks, government initiatives, and international agreements related to climate adaptation and mitigation to inform decision-making.

By providing comprehensive, localised, and actionable information through these channels, individuals and communities can better understand climate risks and take proactive steps towards adaptation and mitigation. This approach fosters resilience and empowers communities to effectively respond to the challenges of climate change.

Key points: Clear, localised, actionable information on climate risks, costs, and impacts empowers communities to understand challenges and implement proactive adaptation measures.

Question 5: What are the particular issues facing Māori, especially sites, assets, and land vulnerable to climate-driven natural hazards?

The Council welcomes the views of Te Tau Ihu iwi and their perspectives in responding to this question.

Question 6: What are the problems with New Zealand's approach to managing climate-related natural hazards? What are the underlying drivers of these problems?

The management of climate-related natural hazards faces numerous challenges that hinder effective risk reduction and resilience-building efforts, including:

- **Fragmentation and Siloed Approaches:** many existing frameworks for managing natural hazards are fragmented, with different agencies responsible for specific hazards or sectors. This siloed approach can hinder coordination and collaboration, leading to gaps in risk assessment and response. Fragmentation and siloed approaches within existing frameworks often lead to coordination issues and gaps in response.
- **Short-Term Focus:** Traditionally, response efforts have often prioritised short-term actions to address immediate needs during and after disasters. This can result in perverse outcomes in the longer term by neglecting long-term risk reduction strategies, perpetuating a cycle of reactive responses. The concept of 'build back better' is a key concept that should be integrated into our approach to managing climate-related natural hazards.

- **Legislative barriers:** Updating natural hazards planning frameworks and maps in resource management plans, as a result of new/updated natural hazards information, are slow and costly processes (following RMA 1991 Schedule 1 process). This results in the resource management system, particularly land use consents, being slow to respond to new technical information and can lead to perverse outcomes. Additionally, there is currently a mismatch between how natural hazards are addressed under the RMA 1991 and Building Act 2004, regarding definitions of natural hazards and climate change effects; and the design lifetime periods for consideration (e.g. RMA 1991 being 100 years versus BA 2004 'no less than 50 years'). Better legislative alignment and clear national direction is required.
- **Limited Integration of Climate Change Considerations:** Climate change is not always fully integrated into hazard management strategies, leading to underestimation of future risks and inadequate preparedness for increasingly frequent and severe climate-related events.
- **Inequitable Distribution of Risks and Impacts:** Vulnerable communities, including marginalised groups and Māori peoples, disproportionately bear the impacts of climate-related hazards due to socioeconomic factors and historical marginalisation. Existing natural hazard management approaches may not adequately address these inequities, leading to disproportionate impacts on vulnerable populations.
- **Reliance on Hard Protection Measures:** Traditional approaches to hazard management have often prioritised hard protection measures such as stop banks or seawalls. However, soft protection and natural defences and other ecosystem-based approaches (such as 'room for rivers') are becoming viable alternatives. There is a need for a balanced approach between employing soft or hard protection measures, depending on the local circumstances and assessment of options. This will require a shift in community perceptions.
- **Limited Community Engagement and Empowerment:** Communities affected by natural hazards are often not adequately involved in decision-making processes or empowered to participate in risk reduction efforts. This can lead to mistrust, misinformation, and ineffective implementation of hazard management strategies.
- **Lack of Long-Term Funding and Resources:** Insufficient long-term funding and resources pose additional challenges, particularly for adaptation and resilience-building initiatives, further impeding progress in addressing underlying vulnerabilities.
- **Complexity and Uncertainty:** The complexity and uncertainty of climate-related hazards complicate risk assessment and response efforts, requiring a more holistic and integrated approach. This approach should prioritise long-term resilience-building, equitable risk reduction, and community empowerment. It should be informed by diverse perspectives and knowledge systems, incorporate the latest climate science, and emphasise collaboration across sectors and stakeholders.
- **Impact on Economic Growth:** The rise in extreme weather, natural disasters, and other effects of climate change drive down incomes, raise unemployment, and taxes, and increase the cost of goods as supply chains are disrupted, making daily living in New Zealand even more unaffordable.
- **Lack of urgency:** The lack of urgency in adaptation planning delays crucial actions needed to address climate impacts effectively, risking increased vulnerability and escalating costs in the future.

- **Inconsistent National Guidance:** the tools and rules available to manage climate-related hazards often provide inconsistent direction to hazard managers. One example is the difference in how stormwater flooding is managed between the Resource Management Act and the Building Code – the RMA typically leads Regional Plans to consider 1% AEP events in hazard management, but the Building Code only requires consideration of the 2% AEP event.
- **Planning does not account for Extreme Events:** Larger events such as Cyclone Gabrielle and the Auckland Anniversary flooding can exceed the design and planning limits in typical Regional Plans or Council design standards. Modern planning approaches to “avoid-the-risk” are sometimes not realistic considering the potential magnitude of events, and there is a need for more central government guidance to achieve consistent and fair outcomes without incurring undue risk to Councils. In the absence of such guidance, the focus should be on implementing proactive strategies to reduce future climate-related costs.

Key points: Government should address fragmentation, prioritise long-term planning, integrate climate considerations, promote equity, engage communities, secure funding, and embrace adaptive governance.

What adaptation-related costs are you facing now? How are you planning on addressing these costs?

Currently, we face significant natural hazard management costs which are increasing over time due to climate change. This includes significant infrastructure expenditure such as maintaining stopbands, upgrading and extending stormwater systems, maintaining seawalls, and preliminary investigations to relocate the Motueka wastewater treatment plant which is located at the coast. We also need to enhance community resilience through knowledge sharing, investing in emergency preparedness and early warning systems. Protecting the environment by restoring wetlands and conserving biodiversity is crucial, as is adapting agricultural practices and addressing tourism impacts.

Through our adaptation planning process, over the coming years the Council will be having some difficult conversations with our residents on how to support existing communities and ensure they are climate-resilient over the medium to long term – particularly those communities vulnerable to sea-level rise where managed retreat will be a realistic option over costly short to medium term solutions that do not provide enduring climate-resilient solutions.

To address these costs, we will need to secure funding from central government. In addition, we will also investigate other funding options (e.g. public-private partnerships). Implementing stricter zoning laws and updating building codes will prevent construction in high-risk areas and ensure new structures are resilient. Community engagement and education are key, involving public awareness campaigns and local participation in planning. We will also adopt innovative solutions like green infrastructure and smart technologies to manage climate impacts more effectively.

Long-term planning involves developing comprehensive adaptation strategies and significant financial support based on continuous risk assessments and promoting sustainable practices across various sectors. Tasman District Council has allocated a total of \$1.6m for adaptation planning in its Long Term Plan 2024-2034, however, no funding has yet been allocated to implement these plans.

Key points: Focus on infrastructure upgrades, community resilience, environmental protection, and innovative solutions. Funding sources include government grants and partnerships. Community engagement and smart technologies are crucial for effective adaptation.

Question 7: What adaptation related risks are you facing now and how are you planning to address these risks?

Tasman District is vulnerable to a range of natural hazards, many of which will be exacerbated by a changing climate including sea-level rise. This includes coastal flooding and storm surges, coastal erosion, river and overland flow flooding, tsunamis, slope instability, earthquakes, liquefaction, droughts, and wildfires.

Tasman District Council has responded to two detailed adaptation preparedness surveys from the Minister of Climate Change on this topic, most recently in March 2024. Some of our key climate adaptation workstreams are listed below:

- **Coastal Management Project:** In 2019, the Council launched its 'Coastal Management Project' working with our communities on long term adaptation planning focusing on coastal hazards and sea level rise. The project included the release of a coastal hazards map viewer and community engagement (2019), development of a coastal risk assessment (2020), and educational community engagement on high-level options for coastal management (2021). This work has followed the Ministry for the Environment's Coastal Hazards and Climate Change Guidance. Work was paused due to the uncertainty with the resource management system reform; however we are about to re-start the work programme over the next year and broaden the scope to take an 'all-hazards' approach.
- **Tasman Climate Response and Resilience Strategy and Action Plan:** We have developed a comprehensive Tasman Climate Response and Resilience Strategy 2024-2035 that drives our climate change work programme to help us reduce greenhouse gas emissions and adapt to the effects of climate change. Its supporting Action Plan provides detailed actions we plan to take and supporting 10-year budgets to implement these actions, across a wide range of Council's activities. Priority actions include emission reduction measures in the transport, energy and waste sectors; empowering communities to act; and initiatives to strengthen the resilience of our communities and ecosystems.
- **Regional Climate Change Risk Assessment and Geospatial Tool:** A regional climate change risk assessment is being conducted in collaboration with Nelson City Council. This assessment aims to deepen the understanding of climate change risks and their impacts on people, the economy, governance, and both built and natural environments. The assessment will inform the development and evaluation of various adaptation options, ensuring that strategies are well-suited to address identified vulnerabilities and enhance resilience against climate change. We have engaged a consultant to undertake the assessment and develop a geospatial tool: the Nelson Tasman Resilience Explorer. These outputs are nearing completion but have not yet been finalised.
- **Natural Hazards Plan Change:** Recently the Council approved a work programme for staff to initiate a natural hazards plan change to the Tasman Resource Management Plan. It is recognised that there is a need to strengthen the current plan provisions focusing on coastal hazards and sea level rise, river and overland flow flooding, slope instability, wildfire, earthquakes, and liquefaction. The plan change aims to ensure that our communities are resilient to natural hazards and adapt to the effects of climate change. This year the work programme will focus on developing 'issues and options' and seeking feedback from the community on this work.