

Submission on the “Draft National Adaptation Plan – Managed Retreat”

June 2022



Foreword

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Ministry for the Environment
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Submission on the Draft National Adaptation Plan

Tēnā koe,

Thank you for the opportunity to comment on the Government's draft national adaptation plan – managed retreat. This submission was prepared by representative members of OraTaiao: The New Zealand Climate and Health Council including our Executive Board, Sylvia Boyd and Matthew Jenks. We are New Zealand's only climate change NGO focused on health and health-equity.

We welcome a national adaptation plan as an opportunity to guide our response to and minimise the ill-effects of the inevitable challenges that climate change will bring, and also as an opportunity to accelerate necessary changes and reform institutions across Aotearoa, including within the health sector. We recognise that a well-planned adaptation plan can go further than simply mitigating the detrimental effects on equity that climate change could cause, and actually serve as a mechanism for closing the existing equity gaps that exist now.

Our submission is focused on optimising the benefits and minimising the damage to health, wellbeing and equity from our adaptation to climate change. We stress that our National Adaptation Plan must be an opportunity grasped to centralise Te Ao Māori, and return agency and leadership to iwi and hapū around the country. Finally, we recommend that the National Adaptation Plan takes more into account its crucial role in driving emissions reductions as well as simply adaptation.

Yours sincerely,

A handwritten signature in black ink, featuring a large, stylized 'D' that loops around and ends with the word 'COFFEY' written in a smaller, cursive script.

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A handwritten signature in black ink, consisting of a stylized 'S' followed by a cursive 'Wright'.

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About OraTaiao

OraTaiao: The New Zealand Climate and Health Council is an organisation calling for urgent, fair, and Tiriti-based climate action in Aotearoa; we recognise the important co-benefits to health, well-being and fairness from strong and well-designed mitigative policies.

We honour Māori aspirations, are committed to the principles of te Tiriti o Waitangi, and strive to reduce inequities between Māori and other New Zealanders. We are guided in our practice by the concepts of kaitiakitanga (guardianship), kotahitanga (unity), manaakitanga (caring), and whakatipuranga (future generations).

OraTaiao has grown over a decade to more than 900 health professionals concerned with:

- The negative impacts of climate change on health, well-being, and fairness;
- The gains to health, well-being, and fairness that are possible through strong, health-centred climate action;
- Highlighting the impacts of climate change on those who already experience disadvantage or ill-health (i.e., equity impacts);
- Reducing the health sector's contribution to climate change.

As well as individual and organisational members, we are backed by 21 of New Zealand's leading health professional organisations for our Health Professionals Joint Call to Action on Climate Change and Health (see https://www.orataiao.org.nz/friends_and_supporters). This support includes the New Zealand Nurses Organisation, Public Health Association, the Royal Australasian College of Physicians and the Australasian College of Emergency Medicine, plus numerous other specialist colleges. Together, these organisations represent tens of thousands of our country's health workforce.



As an organisational member of the Climate and Health Alliance, and of the Global Climate & Health Alliance, we work with a worldwide movement of health professionals and health organisations focused on the urgent health challenges of climate change - and the health opportunities of climate action. OraTaiao signed the Doha Declaration on Climate, Health and

Wellbeing of December 2012, which reflects this international perspective.

Part 1. General Questions

1. Climate change is already impacting New Zealanders. Some examples include extreme weather events such as storms, heatwaves and heavy rainfall which affects lives, livelihoods, health and wellbeing, ecosystems and species, economic, social and cultural assets, services (including ecosystem services) and infrastructure. How is climate change impacting you? This could be within your community and/or hapū and iwi, and/or your business/organisation, and/or your region.

The health effects of climate change are clearly and comprehensively outlined in the recent Sixth Assessment Report, Climate Change 2022: Impacts, Adaptation and Vulnerability.¹

These are being felt increasingly at present, and will worsen in coming years.

These are grouped into immediate health and trauma effects of rainfall events, health risks of extreme heat, increased exposure to vector-borne diseases, and mental health effects- both immediate due to climate-related disasters, and longer-term climate anxiety due to the social and economic impacts. Climate anxiety can be expected to be more prevalent in younger groups, and all the health and wellbeing effects are disproportionately concentrated in already disadvantaged and vulnerable groups, both nationally and internationally, and has the risk of widening already-existing inequalities in society.

Extreme dislocation of events such as floods and severe storms requiring people to leave their homes and communities.

Migration that would fit within the “climate change refugee” category is already being seen, and is expected to increase.

There are increasing concerns about health sector resilience in the face of more frequency and severe climate change-related weather events, highlighted by the Westport floods in July 2022 which necessitated the evacuation of Buller Hospital.

Adaptation is not simply a group of preventative or response measures however, and offers an opportunity to improve public and personal health measures across Aotearoa over and above minimising the ill-effects above. Active transport development, air quality improvements, housing stock enhancement, urban planning optimisation and food system changes can be used to address many of the wider determinants of health in the country. OraTaiao urges our adaptation plan to be guided by the principles of optimising the health, wellbeing and equity outcomes wherever possible.

2. The national adaptation plan focuses on three key areas. Please indicate which area is most important for you (tick box). focus area one: reform institutions to be fit for a changing climate. This means updating the legislative settings so that those who are responsible for preparing for and reducing exposure to changing

¹ Available at: <https://www.ipcc.ch/report/sixth-assessment-report-working-group-ii/> (accessed 02/06/2022)

climate risk will be better equipped. focus area two: provide data, information and guidance to enable everyone to assess and reduce their own climate risks. This means that all New Zealanders will have access to information about the climate risks that are relevant to them **focus area three: embed climate resilience across government strategies and policies.** This means that Government agencies will be considering climate risks in their strategies and proposals. other? Please explain.

Climate resilience must be embedded across all government strategies and policies. It is also important to update legislative settings to allow best adaptation responses.

Allowing individuals to take action is also important but is not the preferred approach as many will be left out, and not everyone has the resources to reduce their own climate risks, creating a significant equity issue.

Focus area two is too passive to be the focus, behaviour change will require more than just knowing the facts. There is a risk with an emphasis on information alone that the government washes its hands of the climate adaptation response to a degree, by putting the onus and potentially the blame on individuals for not acting on what they “knew”.

3. We all have a role to play in building resilience to climate change, but some New Zealanders may be more affected and less able to respond. There is a risk that climate change could exacerbate existing inequities for different groups in society. Appendix 3 sets out the full list of actions in this national adaptation plan.

a) What are the key actions that are essential to help you adapt? Please list them.

Establish a foundation to work with Māori on climate actions and assess socioeconomic and climate vulnerability for Māori

Assess health sector resilience and develop the Health National Adaptation Plan (HNAP)

Action needs to be data driven- provide access to the latest climate projections data

Legislative changes to fund adaptation, ensure climate resilience and support managed retreat.

Ongoing reform of the RMA

Implement the water availability and security programme

Decisions made without the involvement of vested interest e.g., the food industry, in designing our climate adaptation response. We strongly argue that conflicts of interest be both made abundantly clear, and minimised

Ensure better access to health services for vulnerable and rural communities, and better mental health services throughout Aotearoa.

b) Which actions do you consider to be most urgent? Please list them.

Establish a foundation to work with Māori on climate actions

Legislation to support managed retreat

Build property resilience, an initiative for resilient public housing and imbed adaptation in funding models for housing and urban development and Māori Housing

Invest in public transport and active transport

Develop the Health National Adaptation Plan (HNAP)

Assess socioeconomic and climate vulnerability for Māori

c) Are there any actions that would help ensure that existing inequities are not exacerbated? Please list them.

Prioritising at risk groups, particularly Māori groups and rural communities

Adequate community consultation.

Funding support structures and pathways to make transitioning to more resilient structures or places easier and just.

Consideration to a climate change risk assessment windfall tax, so that assets that increase substantially in value due to a perceived climate resilience are taxed on that increase to fund assistance to those who have had assets made worthless, or compensation for unliveable/ unusable land.

d) Are there any actions not included in this draft national adaptation plan that would enable you to assess your risk and help you adapt?

High quality spatial mapping of sea levels, flood plain risks, extreme weather zones, drought and temperature risk.

Enhance community health resilience through investment in public health and implementing policies that improve population health (see question 6 below)

4. Central government cannot bear all the risks and costs of adaptation. What role do you think asset owners, banks and insurers, the private sector, local government and central government should play in: a) improving resilience to the future impacts of climate change? b) sharing the costs of adaptation?

Central government will be left holding the bill for harms created by a failure to adapt, thus pre-emptive adaptive spending would be cost effective.

In reality climate change and sea level rise has been a known force since the 1989 IPCC report, as such asset owners who bought beyond that should have (with due diligence) realised that flood or sea level rise prone properties were at risk.

Unfortunately, the escalation in real estate prices and the dependence of New Zealand's economy upon maintenance of these prices means that there are very real economic risks from allowing market forces to respond to publication of a register of at-risk properties. However, we must explicitly acknowledge the risks to each asset, and avoid allowing further inappropriate development and stranded assets. While there will be some properties that become worthless there are others that will increase in value due to their resilience value. A windfall tax on this increased value could help fund assistance to those that are reduced in value (or become completely uninhabitable).

The worst option would be to leave it to the private sector (banks and insurance) to determine what happens, as their sole motivation is profit maximisation.

Central government needs to facilitate legislation to allow resilience action. Addressing building codes for stronger buildings more resilient to extreme weather events.

Local government will need to provide zoning with regards to appropriate areas for managed retreat (and timing), additional resilience work, rezoning for new developments, annotating LIM reports regarding vulnerabilities precluding higher density development.

5. The National Climate Change Risk Assessment recognised that there may be economic opportunities in adapting to a changing climate.

a) What opportunities do you think could exist for your community or sector?

Overall health outcomes will be negative without both strong mitigation and adaptation

There is an opportunity to plan climate adaptation in such a way that it also helps with health prevention-health outcome and economic savings co-benefits of active transport, warmer/drier housing, greening urban spaces, whenua/ecosystem restoration/biodiversity, access to affordable and healthy food.

Adaptation within the health sector will give an opportunity to achieve physical resilience (e.g. in terms of building structure and location) and workforce resilience in terms of location and service provision. The adaptation plan, if properly designed and embedded within the ongoing health sector reforms, will give a once-in-a-generation opportunity to address many of these existing problems

A windfall tax on properties that are found to be more climate resistant and so increase in value could help fund assistance to those that are reduced in value (or become completely uninhabitable).

b) What role could Central Government play in harnessing those opportunities?

A coordination and education role regarding opportunities is vital and the full and hitherto ignored use of health economics to project savings of adaptation from a health outcome perspective.

System-wide actions

6. Do you agree with the objectives in this chapter? Please explain your answer.

Yes, with caveats (See below)

An objective of system wide actions for national adaptation should be to “enhance community health resilience”. Climate change is the single biggest threat to population health in the 21st century. In addition, climate change threatens to worsen the inequalities that exist in health, particular for Māori. It is important that adaptation work acknowledges the health (including mental health), wellbeing and equity impacts of climate change. A central pillar of adaptation work should be to “enhance community health resilience”.

The US Department of Health defines this as “the ability of a community to strengthen public health and health care systems and to improve the communities physical, behavioural and social health to withstand, adapt to, and recover from adversity”. In New Zealand this needs to be addressed by strengthening the public health care system and implementing policies that improve population health. By improving population health and reducing health inequity, resilience to climate change will be enhanced.

7. What else should guide the whole-of-government approach to help New Zealand adapt and build resilience to a changing climate?

Recognition of the role of trust and socially cohesive communities as the main unit of resilience, and working on programs that increase this.

Developing intersectionality of both health and response to climate change into all government work.

8. Do you agree that the new tools, guidance and methodologies set out in this chapter will be useful for you, your community and/or iwi and hapū, business or organisation to assess climate risks and plan for adaptation? Please explain your answer.

Partially

Consider adaptation mentoring and advisors as a government paid role that works with organisations / businesses to help them plan and implement adaptation plans.

9. Are there other actions central government should consider to:

a) enable you to access and understand the information you need to adapt to climate change? Please explain your answer.

Yes

We urge the government to ensure that climate change (health impacts, opportunities, adaptation and mitigation) become a core part of all undergraduate and postgraduate health professional training

b) provide further tools, guidance and methodologies to assist you to adapt to climate change?

Yes - Online calculators / flow charts that assist decision making.

c) remove barriers to greater investment in climate resilience? Please explain your answer.

Yes - Consider funding adaptation investment, through green investment or Kiwisaver investment options.

d) support local planning and risk reduction measures while the resource management and emergency management system reforms progress? Please explain your answer.

Yes

We recommend an urgent, full and proper incorporation of vulnerabilities and risks such as sea-level rise in all planning decisions around the country.

10. What actions do you think will have the most widespread and long-term benefit for New Zealand?

Reform of the RMA. Currently, the RMA is one of the core pieces of legislation that impacts on the fundamentals of population health (air, water, food, shelter). The proposed reforms are promising but there is still inadequate focus on the impacts of the natural and built environment on health in the exposure draft of the Natural and Built Environments Bill. A stronger focus on human health and wellbeing will ensure this legislation has widespread and long-term benefits for New Zealanders.

Sustainable/regenerative/integrative food system with a values-based approach.

11. Are there additional actions that would strengthen climate resilience? Please explain your answer.

Yes- Extensive rehabilitation, restoration and rewilding of waterways, coastal areas, nature-based solutions, mangroves etc, converting seaside and riverside to native ecosystems rather than housing.

12. There are several Government reform programmes underway that can address some barriers to adaptation, including the Resource Management (RM) reform. Are there any additional actions that we could include in the national adaptation plan that would help to address barriers in the short-term before we transition to a new resource management system?

Requiring developers to have considered risks and adaptation strategies.

13. In addition to clarifying roles and providing data, information, tools and guidance, how can Central Government unlock greater investment in resilience?

a) Would a taxonomy of 'green activities' for New Zealand help to unlock investment for climate resilience?

The natural environment

14. Do you agree with the actions set out in this chapter?

Yes, with caveats as outlined below

15. What else should guide Central Government's actions to address risks to the natural environment from a changing climate?

One of the major guiding principles needs to be the balance between the current mainly extractive farming practices and the natural environment, including the levels of use of artificial fertiliser and freshwater resources allowing expansion of polluting farming methods into environments to which they are naturally unsuited. There is an urgent need for a switch to more long-term sustainable farming practices, which will require a reduction in intensity and retreat of farming in many areas, with a concurrent need to support those in the farming community affected by this.

From a health perspective the near inevitability of having aedes and anopheles mosquitoes establish in New Zealand allowing diseases such as malaria, dengue fever, Zika, Ross River virus is deeply concerning. These mosquitoes are most likely to enter via our airports and ports. Urgent setting up of regular screening in the 5 km flight radius around these sites is important. In addition, education of residents and business owners in this radius of the importance of not allowing mosquito breeding sites (stagnating water) on their properties.

With regards to Ross River virus, the presence of a high number of possums contributes significantly to the likelihood of this disease becoming endemic as they can act as an animal host of this mosquito borne disease. Effective possum control will reduce this risk, as well as allowing forests to be better carbon sinks and encouraging biodiversity.

Extending the emissions trading scheme to include and prioritise native forests, wetlands, predator control and other such actions

The planned reforms to water management and the National Policy Statement on Freshwater Management go some way to addressing the quality of freshwater in New Zealand. However, there are well documented impacts on freshwater quality due to the intensification of animal agriculture, in particular dairy farming, that are not directly addressed. A key piece of action is to meaningfully include agriculture in the emissions trading scheme. This would have multiple benefits for freshwater quality by driving down nitrogen fertiliser use, encouraging the adoption of regenerative farming practices and a shift from animal agriculture to horticulture. In addition, measures should be taken to reduce the size of the national dairy herd. As well as adapting to the threat to clean freshwater from climate change this will have the co-benefits of reducing climate change emissions from agriculture and improving health by increased uptake of plant-based diets.

16. Are there other actions central government should consider to:

a) support you, your community, iwi and hapū, business and/or organisation to build the natural environment's climate resilience?

Yes - Funded locally sourced native tree nurseries – sold at cost.

Extend Emission Trading Scheme forest definition to allow riparian planting with natives.

b) strengthen biosecurity in the face of climate change? Please explain your answer.

Yes - From a health perspective the near inevitability of having aedes and anopheles mosquitoes establish in New Zealand allowing diseases such as malaria, dengue fever, Zika, Ross River virus is deeply concerning. These mosquitoes are most likely to enter via our airports and ports. Urgent setting up of regular screening in the 5 km flight radius around these sites is important. In addition, education of residents and business owners in this radius of the importance of not allowing mosquito breeding sites (stagnating water) on their properties.

c) identify and support New Zealand's most vulnerable ecosystems and species in a changing climate? Please explain your answer.

Yes - Ensure DOC has adequate funding. Extend marine reserves to 30-50% of our waters. Increase the number of protected ecosystems on land also.

17. What do you identify as the most important actions that will come from outside of central government (eg, local government, the private sector or other asset owners, iwi, hapū and/or other Māori groupings such as: business, forestry, fisheries, tourism, urban Māori, the private sector) to build the natural environment's resilience to the impacts of climate change?

Funding of locally eco-sourced nurseries offering reforestation plants (tree, wetlands, mangroves etc) at cost to all.

Better management of stormwater in built environments, e.g. encouraging rooftop (dry roof) gardening, tree weirs to reduce flooding risk.

Agriculture having support and accountability to maintain regenerative and sustainable farming methods.

18. Are there additional actions that would advance the role of Māori as kaitiaki in a changing climate? Please explain your answer.

Official Kaitiaki funded roles offering advice and support to landowners for adaptation strategies. We would encourage a clearly outlined plan as to how agency will be returned to Māori, and a commitment to fully incorporating Mātauranga Māori in our adaptation plan.

Homes, buildings and places

19. Do you agree with the outcome and objectives in this chapter? Please explain your answer.

Yes

20. What else should guide Central Government's actions to increase the resilience of our homes, buildings and places?

Incorporate better passive cooling technologies into the housing code (in addition to insulation for warmth), this may include such things as in-built mosquito netting on windows / doors, fans and awnings in Northern regions. Without a focus on integrating passive cooling, we risk housing becoming dependent on air conditioning during hotter days, which our electrical grid is unable to support. Passive cooling also reduces potential inequity (those less able to afford to have or run air-conditioning in housing that rapidly overheats will have worse outcomes worsening climate inequities. Consider increased strengthening of the building code to improve extreme weather and seismic resilience.

21. Do you agree with the actions set out in this chapter? Please explain your answer.

Yes

22. Are there other actions central government should consider to:

a) better promote the use of mātauranga Māori and Māori urban design principles to support adaptation of homes, buildings and places? Please explain your answer.

Yes - Encourage specific training in this field.

b) ensure these actions support adaptation measures targeted to different places and respond to local social, cultural, economic and environmental characteristics? Please explain your answer.

Yes- Work with local bodies

c) understand and minimise the impacts to cultural heritage arising from climate change? Please explain your answer.

Yes- For many at risk cultural sites the issues will be similar, proactively sharing lessons learnt and experience will be helpful, especially with many iwi and community groups involved.

The following questions are about existing buildings. These can include housing, communal residential (hotels, retirement village), communal non-residential (church, public swimming pools), commercial (library, offices, restaurant), industrial (factory, warehouse).

23. Do you think that there is a role for government in supporting actions to make existing homes and/or buildings more resilient to future climate hazards? Please explain your answer.

Yes

As the government will end up footing the bill for emergency rehousing of people who suddenly have uninhabitable properties, supporting proactive resilience refitting would be prudent. There could be a role for a government loan scheme, as well as easy advice options to assist resilience.

24. From the proposed actions for buildings, what groups are likely to be most impacted and what actions or policies could help reduce these impacts?

As always older buildings often in more remote or coastal areas and over-represented in low socio-economic data are more at risk. Taking a build back better approach is important, early identification of expected lifespan / timeframe until a building is rendered unusable by climate change will also allow better planning and appropriate investment strategy.

25. What are some of the current barriers you have observed or experienced to increasing buildings' resilience to climate change impacts?

Capitalism in action, building as cheaply as possible to maximise profits, rather than ensuring strength and longevity. This is also reflected in the tendency to build overly large homes on tiny sections reducing ability to absorb rainwater and increasing flooding potential. Only stringent building codes will overcome these drivers.

A government funded design competition with houses flats etc designs that are climate resilient and meet council building codes, and can be given away to people wishing to build + reduce the planning times frames (automatic pre-approval) could help.

Infrastructure

26. Do you agree with the outcome and objectives in this chapter? Please explain your answer.

Yes

27. What else should guide central government's actions to prepare infrastructure for a changing climate?

We are already significantly behind with regards to the infrastructure needs of our current population in our cities, let alone with expanded population growth or for climate adaptation considerations. In addition, aging networks without appropriate maintenance are a liability. This all requires substantial investment

that is beyond the means of individual local bodies. Could this be financed through green investment or other means?

Within cities, private motorised transport is often one of the least resilient systems, and the importance of active transport and public transport became clear after events like the 2010-2011 Christchurch Earthquakes

Building redundancy into all systems will also be critical for function in extreme events. This is particularly important for the health sector, but applies at the local and household level as well

28. Do you agree with the actions set out in this chapter? Please explain your answer.

Yes

29. The national adaptation plan has identified several actions to support adaptation in all infrastructure types and all regions of Aotearoa.

a) Do you see potential for further aligning actions across local government, central government and private sector asset owners? Please explain your answer.

Yes

Standardisation will help reduce costs and confusion, however it may need to be by likely threat type / location, as not all infrastructure will face the same challenges.

b) Do you see any further opportunities to include local mana whenua perspectives and mātauranga Māori in infrastructure adaptation decision-making? Please explain your answer.

Yes.

Ongoing consultation remains important.

c) Do you see any further opportunities to include local community perspectives in infrastructure adaptation decision-making? Please explain your answer.

Yes

While there is already good opportunity continued feedback will help reduce anxiety

A good example of local government engagement with communities is the Dunedin City Council St Clair to St Kilda coastal plan. This is a model example of engagement with communities with a strong focus on climate change impacts and adaptation. It is a model for local government engagement with communities.

d) Do you see any further opportunities to ensure that groups who may be disproportionately impacted by climate change, or who are less able to adapt (such as those on low incomes, beneficiaries, disabled people, women, older people,

youth, migrant communities) have continued and improved access to infrastructure services as we adapt?

Yes- all infrastructure programs should be required to assess health and health equity impacts to ensure that vulnerable communities are not unfairly impacted by climate change. This is particularly important with regard to transport and social housing infrastructure.

e) Do you think we have prioritized the right tools and guidance to help infrastructure asset owners understand and manage climate risk? Please explain your answer.

Yes.

30. Are there additional infrastructure actions that would help to strengthen Māori climate resilience? Please explain your answer.

31. Are there any other tools or data that would help infrastructure asset owners make better decisions?

Easy access to very localised specific data.

Communities

32. Do you agree with the outcome and objectives in this chapter? Please explain your answer.

Partially

We strongly support the development of a national health adaptation plan (see p.78) but remain concerned about the lack of a focus on health in this section. Much of the objectives and outcomes here are sketchy and left to other departments- it is not a “plan” if it simply says for others to make it.

33. Do you agree with the actions set out in this chapter? Please explain your answer.

Partially.

Strongly agree with the critical action of developing a National Health Adaptation Plan and subsequent regional health action plans.

A central pillar of adaptation work should be to “enhance community health resilience”. The US Department of Health defines this as “the ability of a community to strengthen public health and health care systems and to improve the communities physical, behavioural and social health to withstand, adapt

to, and recover from adversity". In New Zealand this needs to be addressed by strengthening the public health care system and implementing policies that improve population health. The development of a Public Health Agency as part of the reforms of the health and disability system has the potential to address this if it is made a priority to implement policy recommendations of this agency to improve public health.

The proposed action of assessing healthcare resilience should be implemented. As demonstrated by events such as Hurricane Katrina in the United States the healthcare system is vulnerable to climate change related events. These events can significantly impact on the ability to deliver healthcare systems and pose a threat to health. As a local example, Lakes District Hospital had indoor temperatures during the January 2018 heatwave that were deemed by Worksafe to be untenable for staff (and also posed a risk to patients).

Strongly agree that overhauling and strengthening the welfare system will help with resilience to climate change impacts amongst the most vulnerable members of the community

34. What actions will provide the greatest opportunities for you and your community to build climate resilience?

Early advice on at risk areas. Access to affordable grants / loans. Planning regulation changes allowing rainwater storage, green roofs, solar. Community events to regain the cohesion damaged by Covid restrictions.

35. Are there additional actions central government should consider to:

a) support your health and wellbeing in the face of climate change? Please explain your answer.

Yes

Within health additional funding is needed to construct new assets to allow healthcare provision to our current population as health is already beyond capacity. These new assets need to be robust enough to withstand adverse weather events but also designed to be sufficiently above sea level and have adequate transport links to be accessible in all future eventualities. There needs to be investment in the workforce to allow for adequate care in disaster events for not just the increased need but also the predictable staff absence due to the event.

There is inadequate focus on the mental health impacts of climate change including climate anxiety and depression. A programme of work should look to assess this problem and develop tools and resources for health care professionals and the community. In addition, the "strengthen teaching and learning related to climate change" action should include information for teachers on how to support the mental health of children and young people who face a changing climate.

b) promote an inclusive response to climate change? Please explain your answer.

Yes

Recognise the number of people who do not speak English as their first language (not just refugees) and tailor messaging towards this variety of languages and distinct cultural groups.

In addition to the stated at-risk groups, people with mental health problems are at higher risk of heat related illness and need specific targeting.

c) target support to the most vulnerable and those disproportionately impacted?
Please explain your answer.

Partially

Still very rudimentary plans

36. What do you think are the most important actions that will come from outside of Central Government (eg, local government, the private sector or other asset owners, iwi, hapū, non-government organisations, community groups) to strengthen community resilience in the face of climate change?

Modifying current structures for increased resilience, plus improved resilience through localised infrastructure such as rain water storage, green roofs, trees for shade, local stormwater solutions / weirs and swales, local electricity infrastructure e.g. solar / wind. In the face of a cost-of-living crisis these changes will need significant incentives.

37. Are there additional actions that could be included in the national adaptation plan to help strengthen climate resilience for iwi, hapū and whānau? Yes No Partially
Please explain your answer.

Education and support.

In many ways local iwi/hapū communities have good social cohesion and are already good at working together, more at risk are urban Māori or other neighbourhoods where there is little social cohesion, creating this during severe adverse events is difficult.

The economy and financial system

38. Do you agree with the outcome and objectives in this chapter?

Partially

By limiting the financial implications of climate change assessment to 2061 we avoid assessing the worst effects of sea-level rise which is worse later in the century. This leaves our already very real-estate dependent economy at higher risk of strand assets in flooded real estate, that a longer time frame would have predicted and acted on.

This section acknowledges the risk to “land-based productivity and output,” but doesn’t acknowledge the effect on food security and food costs.

Flood Re as a model is still “kicking the can down the road” as properties will be uninsurable and rendered rapidly unliveable in less than 20 years. In the interim there is still investment of reinsurance money going towards restoring properties that ultimately will not be habitable. That money may be better spent up front by insurance companies having to support managed retreat and pre-emptive salvage of whatever is moveable from the properties at highest risk.

The outlined strategy does not avoid the moral hazard of allowing further development in at risk areas. Currently developing high risk land and on selling (e.g. housing developers putting up multiple apartments in flood prone areas and pocketing significant profits) is allowable in this draft. Comprehensive LIM data (with risks beyond 2061) and urgent zoning changes are needed to prevent further investment in real estate that climate change will render non-permanent. Leaving it to insurance companies will only increase stranded assets and financial instability.

39. What else should Central Government do to realise a productive, sustainable and inclusive economy that adapts and builds resilience to a changing climate?

Reduce the risk of overexposure to real estate/housing loans in high-risk areas.

National freight and supply work also needs to consider emissions. Preferencing local suppliers and supply chains when allocating government contracts will improve resilience.

40. Do you agree with the actions set out in this chapter? Please explain your answer.

41. Are there other actions Central Government should consider to: a) support sectors, businesses and regional economies to identify climate risks and adapt?

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b) promote a resilient financial system in the face of climate change? Please explain your answer.

Yes

Reduce the risk of overexposure to real estate/housing loans in high-risk areas.

42. What do you think are the most important actions that will come from outside of central government (eg, local government, the private sector or other asset owners, iwi, hapū and/or other Māori groupings such as: business, forestry, fisheries, tourism, urban Māori, the private sector) to reduce the economic and financial risk they face from climate change?

Recognising vulnerabilities and investing elsewhere.

43. Are there additional actions within the financial system that would help strengthen Māori climate resilience? Please explain your answer.

Unsure

There are already issues with shared ownership of Māori whenua limiting access to insurance and loans, a specific system that accommodates this ownership model may be helpful.

44. In the context of other risk management options (eg, flood barriers, retreat from high-risk areas), what role should insurance have as a response to flood risk? Please explain your answer.

While insurance companies are experts at risk management, ultimately, they exist to create profits for their shareholders, and have no duty of care towards ensuring property owners have the best outcome. Requiring them to have a threshold at which assisted planned retreat is offered is important, as the alternative of an uninsurable asset that is one event from becoming totally worthless is not ideal. There will also be a need for them to consider offering site mediate post retreat to ensure that the property does not pollute other property, waterways etc during anticipated further flooding.

45. Should the Government have a role in supporting flood insurance as climate change risks cause private insurance retreat? Please explain your answer.

No

We anticipate flooding events will become so commonplace that continued habitation would be foolish and a process to assist managed retreat is a better option.

There may be an option with some properties to have an intervening period of mobile or tiny housing only zoning, where assets can be moved away during flood events.

a) Does your answer to the above question depend on the circumstances? (For example, who the owner is (eg, low income), the nature and characteristics of the asset (eg, residential or commercial property, contents and vehicles), what other risk management options are available and their cost/benefit, and where the asset is located?) Please explain your answer.

We do not believe that the government should be trapped continually supporting people to live in properties that are at risk of repeated damage and which ultimately will become uninhabitable. A better option is to facilitate early planned retreat of entire communities to better designed communities in climate safe areas.

46. If you think the Government should have a role in supporting flood insurance as climate change risks cause private insurance retreat, how do you envision the

Government's role, and how is this best achieved (eg, direct support and/or indirect support such as reducing underlying flood risk)?

47. If the Government were to directly support flood insurance: a) what is the best way to provide this direct support? b) should the Government's focus be to support availability or affordability of insurance, or both? c) how should the costs of that support be funded, and by whom? d) what are the benefits and downsides of this approach? e) should this support be temporary or permanent? f) if temporary, what additional measures, if any, do you think would be needed to eventually withdraw this support (eg, undertaking wider flood protection work)? g) what would the risks or benefits be of also including non-residential property, such as commercial property? h) what design features or complementary policies are needed so any flood insurance intervention retains incentives for sound flood-risk management (eg, discouraging development in high-risk locations)?

48. How effective do you think the insurance "price signal" (eg, higher premiums or loss of insurance) is for providing incentives to reduce flood risk?

Leaving this to insurance is risky as there may not be any incentive to reduce flood risk, and it risks stranded assets.

49. In your view, should a scheme similar to Flood Re in New Zealand be used to address current and future access and affordability issues for flood insurance? Why or why not?

No

Flood Re as a model is still "kicking the can down the road" as properties will be uninsurable and rendered rapidly unliveable in less than 20 years (2039 for Flood Re in England). In the interim there is still investment of reinsurance money going towards restoring properties that ultimately will not be habitable. That money may be better spent up front by insurance companies having to support managed retreat and pre-emptive salvage of whatever is moveable from the properties at highest risk.

50. How do you think a scheme similar to Flood Re in New Zealand could support or hinder climate change adaptation initiatives in New Zealand?

Flood re would hinder climate adaption by encouraging people to stay on properties that are likely to be repeated flooded

Closing general question

51. Do you have any other thoughts about the draft national adaptation plan that you would like to share?

Part 2. Managed Retreat

52. Do you agree with the proposed principles and objectives for the Climate Adaptation Act? Please explain why or why not.

Within the proposed principles and objectives there are several omissions.

Firstly while “Managed retreat processes are efficient, fair, open and transparent” and Iwi and Māori are consulted and their outcomes supported, there is no specific commitment to an equity focus during this process.

Furthermore, the responsibility for risk identification and management has been passed on to the insurance and banking industries, with the central government looking to divulge its own responsibility, short of acknowledgement of the moral hazard of allowing further development in areas that will be severely affected, with “limiting the Crown’s fiscal exposure” a key priority. This approach shows an unwillingness to learn from the lessons of the past, and how corporate structures only care of their own bottom line and are happy to allow substantial externalities to occur if this maximises their profits. Only robust government oversight and regulation offers a counterpoint to the public harm that otherwise occurs. Indeed, this is a fundamental reason why we are facing a climate crisis. Central government’s failure to accept responsibility for acknowledging the areas and assets at risk and leaving this to corporate structures to manage, shows a dereliction of duty to the people and environment they have responsibility for. Concerns that the government could be held liable for the loss in value of assets identified as climate vulnerable, could be managed proactively with legislation, and should not discourage central government from showing true leadership.

Inter-generational wellbeing equity is vital as a clear point of focus for our approach to climate adaptations.

53. Are there any other principles or objectives you think would be useful? Please explain why.

While “Protection of the natural environment and the use of nature-based solutions are prioritised,” this should go further and also encourage solutions that also achieve CO2 sequestration, and support biodiversity.

As Pacific countries are very likely to be severely affected, we should also include resettlement of Pacific peoples within our priority groups.

Establishing a process for managed retreat

Questions: 54. Do you agree with the process outlined and what would be required to make it most effective?

The “process” outlined leaves communities and local government having to recreate on a case-by-case basis a plan for each area. More guidance on options for changes in land usage and /or ownership is needed.

Process templates should be suggested. For example, when flooding events are likely every 5 years the land is no longer suitable to be used or zoned for permanent private residences. It may still be suitable for mobile or temporary/tiny housing, recreational uses, wetlands or forestry (eligible for carbon credits) or as conservation land. Suggestions as to who performs remedial work on the land, or who is responsible for a lack of remedial work thereby causing further environmental degradation are sorely needed. Suggestions as to who takes ownership (council, remains in private ownership, DOC, Iwi, other) are also needed, in a manner that does not require government, local body or iwi to purchase affected land at unmanageable prices.

Regarding coastal areas, while some resilience strategies are possible, they should be seen as ultimately stop-gap measures, as it is likely further sea level rise will eventually overcome these as well. Resilience measures should be paid for by those who will benefit, over a time frame that ensures they are completely reimbursed well before they become superfluous. Land targeted for resilience measures that are not likely to provide protection from climate change over longer time periods needs to be carefully annotated as such to avoid price inflation of an ultimately stranded asset.

55. What do you think should trigger the process? What data and information would be needed?

Sea level rise and predicted major flooding data is essential. Ultimately when current infrastructure (roads, three waters, power and broadband supply) will be unusable due to frequent inundation, and the frequency of upgrade is no longer financially viable to local bodies, even allowing for special or targeted rates, then a region is no longer able to be zoned for permanent residence, and a move to alternative use is required.

For rural properties salt water inundation will restrict activities possible on a property, as may flooding / silt deposition. Decision making regarding land use can be left to the individual owner but guidance on suitable options should be provided.

56. What other processes do you think might be needed, and in what circumstances?

Rezoning of higher ground land for resettlement of affected communities, to ensure preservation of social networks and support systems. This needs to be put aside now, prior to further development and further price escalation. This planning also needs to include transport networks, schools, medical facilities, community centres, and recreational resources and commercial centres.

Roles and responsibilities

57. What roles and responsibilities do you think central government, local government, iwi/Māori, affected communities, individuals, businesses and the wider public should have: a) in a managed retreat process? b) sharing the costs of managed retreat?

Climate change has been generally known since prior to 1990 (with the IPCC's initial reports in 1989). This would seem a reasonable date on which to base compensation/land prices. Essentially properties purchased after 1990 should have considered climate change risks as part of their due diligence and purchased with these risks in mind (caveat emptor). Those purchased prior could have suggested values for purchase in the event of managed retreat, limited to 1990 rateable values. For Iwi lands a different approach may be necessary and would require further appropriate consultation.

Central government remains responsible for provision of those amenities it currently is responsible for e.g. schools, health facilities, major roading infrastructure so remains responsible for providing these due the creation of new locations for communities that have needed to retreat. Local government remains responsible for providing the infrastructure it maintains within new sites for retreating communities. These costs would be funded by the general public through taxation and rates. Individuals should be responsible for relocations of their own assets, although a consideration to funding transport of housing to new sites may be worthwhile.

There is a need to urgently address sustainability and recycling options for infrastructure and other assets that are no longer considered to be in habitable zones but are not relocatable.

58. What support may be needed to help iwi/Māori, affected communities, individuals, businesses and the wider public participate in a managed retreat process?

Clear pathways of responsibility and options for managed retreat. Making up plans as you go along without good structured guidance will contribute significantly to the stress caused by managed retreat. While consultation is vital, having clear options and pathways available will make these transitions smoother and easier. Ensuring those parties at risk have a clear idea of the risks and timeframes applicable to them will help.

59. A typical managed retreat will have many costs, including those arising from preparation (including gathering data and information), the need to participate in the process, relocating costs and the costs of looking after the land post-retreat. In light of your feedback on roles and responsibilities (question 57), who do you think should be responsible for or contribute to these costs?

Local and central government need to provide information regarding which areas are likely to require managed retreat and over what time period.

60. What do you consider the key criteria for central government involvement in managed retreat?

Providing information in a timely manner to allow decision making. Having determined responsibilities and pathways for managed retreat. Ensuring where possible the process is as easy as possible for those involved.

61. There may be fewer options for homes and community buildings (eg, schools, churches, community halls) to move than businesses (eg, retail and office buildings, factories, utilities) for financial, social, emotional and cultural reasons. That may suggest a different process for retreat, and different roles and responsibilities for these actors. Should commercial properties/areas and residential properties/areas be treated differently in the managed retreat process? Please explain why or why not.

Pre-emptive zoning of new areas planned for communities to move to is essential. Best practice community design standards should be incorporated. Community buildings should be considered essential to facilitate a continued sense of community and reduce the mental health consequences of retreat. Where communities are structured around a main employing business (e.g. some communities with freezing works as the main employer) then they need to be considered as essential within a managed retreat, and plans made within zoning drafting, but otherwise leaving individual businesses to make their own plans would seem reasonable.

62. Even in areas where communities are safe, local services and infrastructure such as roads, power lines and pipes may become damaged more frequently and be more expensive to maintain because of erosion or increases in storms and rainfall. Local councils may decide to stop maintaining these services. Are there circumstances in which people shouldn't be able to stay in an area after community services are withdrawn?

When there is no longer an ability to safely manage waste water services (e.g. septic tanks or pumped waste water) without environmental damage, or events are at such a frequency that preservation of life cannot be ensured, then the area should no longer be suitable for permanent habitation.

Property transfer

63. In what situations do you think it would be fair for you to be required to move from where you live?

When there is no longer an ability to safely manage waste water services (e.g. septic tanks or pumped waste water) without environmental damage, or events are at such a frequency that preservation of life cannot be ensured, then the area should no longer be suitable for permanent habitation.

64. Many residential communities are made up of a combination of renters, owner-occupiers and people who own a property and use it as a second/holiday house. Do you think there are reasons for these groups to have different levels of involvement in a managed retreat process?

All have justifiable reasons to be involved but owner-occupiers should have highest priority. However, a managed retreat process should also consider ensuring the amount of new housing created to cover the housing needs of current residents at a minimum, preferably would also increase the housing stock.

65. It is not always obvious that an area is at high risk from natural hazards or the impacts of climate change. However, council risk assessments and increased data and information should make these risks clearer. Do you think different approaches should be taken for those who purchased properties before a risk was identified (or the extent or severity of the risk was known) and those who bought after the risk became clear?

Yes, there should be a differential approach. Exactly what thresholds are taken would need to be partially informed by the expected reduction in asset values and fallout to the overall economy and financial confidence. Bearing that in mind, as a suggestion from 1990 climate change was known and sea level rise believed likely. Due diligence should be presumed, with reduced liability from any statutory body with regards to subsequent reduction in land values. Where arrangements are made for managed retreat, government or local body compensation pricing should acknowledge 1990 pricing, rather than subsequent price escalations for coastal properties. Once detailed council risk information is published this should be flagged on the title, so that future purchasers are aware that the land has a limited lifespan for its current uses, and property prices can be agreed between seller and vendor with this in mind.

This approach would result in some properties reducing their value significantly, whereas others which are felt to be highly climate resistant would likely increase. There could be consideration of a windfall tax on those properties that benefit from this classification, which could be used to assist with compensation / purchase for those properties which have become uninhabitable.

66. Under what circumstances do you think it would be fair or necessary for government to take approaches with a greater or lesser degree of intervention or support?

An equity approach is needed. Lower socio-economic communities at most immediate and highest risk would need the most support. This should aim to achieve a managed retreat that maintains social cohesion while improving housing quality and amenities.

67. How do you think land with historical, cultural, social or religious significance (eg, cemeteries or churches) should be treated?

Preservation of what can be salvaged by assisted re-siting to safe locations, previous site maintained while possible to acknowledge its history. There would need to be some government funding for this.

Implications for Māori

68. Some Māori communities have needed to relocate as a result of events (including natural disasters) that have impacted their marae and wāhi tapu. These examples show that Māori communities are aware of the ways that climate change is affecting their marae, papa kāinga and wāhi tapu, and how relocation can be approached as a community, with engagement from iwi, hapū and whānau. The examples also demonstrate that climate change and natural hazard events are impacting coastal communities as well as inland communities located closer to rivers and lakes. How do you think managed retreat would affect Māori?

Te Tiriti guarantees Māori preservation of access to their lands, which will be impossible under a 3-degree warming climate change scenario, however the responsibility to make best adaptation remains heavily on the Crown as Treaty partner. Ensuring Māori control over the process and retreat of entire communities including ancestral burial grounds, would provide the least-worst outcomes.

69. Managed retreat has rarely occurred in Aotearoa, especially within Māori communities. However, there are examples of Māori proactively working to protect their marae, papa kāinga and wāhi tapu by either relocating or protecting and developing their current sites. In these instances, the focus was on protecting and preserving their taonga for future generations. What do you see as being most important in developing a managed retreat system for Māori?

Māori control of the process and an equity that ensures those least well off have their facilities improved by a move would provide the best result.

70. Māori land and Treaty settlement land have unique legislative arrangements. Restrictions and protections are placed on Māori land to meet a clear set of principles and objectives that recognise the cultural connection Māori have with the land and focus on land retention and use. Land that has been acquired through Treaty settlement processes is most likely to have cultural significance to a particular iwi or hapū and used to support the aspirations of their people. How do you think Māori land (including Treaty settlement land) should be treated?

Each area would be unique, e.g. the change of a forest area to wetland may be acceptable, coastal boundary shifts still provide for traditional uses e.g. kaimoana. This is a question for each Iwi Hapū and Marae.

Post-disaster managed retreat and the interaction with insurance

71. How do you think post-event insurance payments could support managed retreat?

There is an urgent need for detailed risk assessments of properties, with careful adjustment of policies to flag those for which no further coverage would be provided, and allow property owners to pre-emptively cash in insurance to manage retreat prior to anticipated devastating events. Regulation of insurers to ensure that there is a maximal advanced warning of likely drop in cover is required. Consideration is also needed of requiring remedial work undertaken to have to be of a nature to improve.

Pre-emptive managed retreat and the interaction with insurance

72. Should insurability be a factor in considering the option of managed retreat from an area?



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