

# SUBMISSION ON THE NATIONAL ADAPTATION PLAN

3 JUNE 2022

# 1 Introduction

Wise Response is a Dunedin-based but New Zealand-wide, non-partisan Society, launched in 2013, with the purpose of persuading the New Zealand Parliament, Government and New Zealand society in general, to confront and respond effectively to any confirmed threats arising from the question: *"As demand for growth exceeds earth's physical limits causing unprecedented risks, what knowledge and changes do we need to secure New Zealand's future wellbeing?"*

- 1.1 This submission is divided into feedback on the six outcome areas and objectives in the draft national adaptation plan—system-wide actions; natural environment; homes, buildings and places; infrastructure; communities; and economy and financial system—plus the managed retreat consultation.
- 1.2 Wise Response is particularly concerned to promote science-led planning for risk reduction and living within biophysical limits. These concerns guide our comments on the six outcome areas for the NAP and the managed retreat consultation (henceforth, 'NAP').
- 1.3 Climate action includes both mitigation (addressed primarily in the government's Emissions Reduction Plan and Climate Emergency Response Fund) and adaptation (addressed primarily in the NAP). The two aims of climate mitigation and climate adaption must be addressed together: in particular, the NAP must avoid maladaptive solutions that make mitigation harder. The COP 26 pledge to a 1.5°C science-based target pathway and the reduction of methane by 30%, will need ambitious action from the Government and the agriculture industry in particular.
- 1.4 Drawing on evidence from the IPCC, the world will reach 1.5°C in the early 2030's.<sup>1</sup> The World Meteorological Office states there is a 50:50 chance of the annual average global temperature temporarily reaching 1.5 °C above the pre-industrial level for at least one of the next five years – and the likelihood is increasing with time<sup>2</sup>. The UN General Secretary has stated that limiting warming to around 1.5°C requires global greenhouse gas emissions to peak before 2025 at the latest, and be reduced by 43% by 2030; at the same time, methane would also need to be reduced by about a third.
- 1.5 Because of the delay in starting and finishing infrastructure projects and other institutional and organisational arrangements (such as renewable energy projects), to expect the 2025 target to be reached is unrealistic. And because 1.5°C and beyond will increase significantly the extreme weather events that threaten human life on this planet, an adaptation plan becomes critical, without relaxing the urgency and need for mitigation. This submission is then based on the premise that we cannot avoid a 1.5°C warming world and are highly likely to face a 2°C plus warming world in the early 2040s.
- 1.6 We recognise that the climate emergency is as much a social policy issue as it is a physical environmental issue. How are we to live to get what we want from life, to enjoy the love of family and friends, the comforts of the Earth, and the pleasures of the good life? A normal pattern for many of us is to seek an education or training, to get a good job, to enable us to buy a house and various goods and services to feed ourselves, travel, and keep in good health. We expect the collective arrangements by the people who live with us —locally, nationally, internationally — to provide security for our safety, and protection of the rewards

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<sup>1</sup> IPCC Global Warming of 1.5°C. Retrieved from <https://www.ipcc.ch/sr15/chapter/spm/>

<sup>2</sup> WMO update: 50:50 chance of global temperature temporarily reaching 1.5°C threshold in next five years. Retrieved from <https://public.wmo.int/en/media/press-release/wmo-update-5050-chance-of-global-temperature-temporarily-reaching-15C%20c-threshold>

of our work and effort. At the moment the social norms embedded in those expectations are inconsistent with a climate emergency.

- 1.7 Wise Response applauds the vision to ‘adapt to the effects of unavoidable climate change in a fair, low cost and ordered manner’. We support the effort to plan for a just transition, especially because business as usual cannot continue and our real choice is between more and less orderly, more or less expensive, and more or less equitable transitions.
- 1.8 We agree that a ‘flexible approach that can accommodate change but keep us moving in the right direction’ is required, but despite much positive language in this draft document, we are not finding the appropriate decisions or actions that would do that work. Dynamic adaptive planning is flexible, but it is not vague or equivocal about its goals (p. 35).

## 2.0 System-wide actions

- 2.1 The draft plan relies significantly on the broad schedule of reforms, work programmes and initiatives that are already in progress and being managed across ministerial portfolios e.g. RMA Reform (MfE), Emergency Management reform (NEMA), Three Waters reform (DIA) and health reform (MoH). While an all-of-Government response to climate adaptation is critical, and an “adaptation lens” needs to be applied to all government work programmes, it is difficult to understand how the draft plan will provide a coherent management, reporting and governance framework across this wide range of government activity.
- 2.2 In many cases the work programmes are driven by strategic objectives separate to climate adaptation. Specific climate adaptation benefits for these actions need to be identified. Once identified, they can be reviewed to ensure that they will in fact directly support the objectives of the draft plan, and if gaps are identified, new actions must be mandated and funded.
- 2.3 There are opportunities for recent information to be included in the next draft of the NAP. Wise Response recommends the following changes and additions to the reasons and priorities as to why adaptation to climate change is needed:
  - 2.3.1 page 8 - the draft plan states that sea-level rise is continuing at a rate of 2.4 millimetres year. These data should be updated in light of recent modifications published by Richard Levy and Tim Naish<sup>3</sup>
  - 2.3.2 pages 8, 44 and 46 - extreme weather events should also include the effect of increased temperatures on marine life such as the 2022 heatwave that has impacted marine life in Fiordland
  - 2.3.3 page 8 - with respect to drought, the draft plan should reflect the impacts of drought on Kāi Tahu values, future use and also on the irrigation expectations and future uses.
- 2.4 Whilst it is noted that changes in temperature and seasonality will have implications for agriculture and horticulture, the draft plan as a whole is largely silent on how the risk to land-based primary sector productivity and output will be diminished. In addition, there is little detail on adaptation to lessen the effects of climate change on tourism, and the role of regenerative tourism<sup>4</sup>. These are significant gaps that Wise Response believes needs to be closed.

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<sup>3</sup> [Swifter rise in sea level predicted | Otago Daily Times Online News \(odt.co.nz\)](https://www.odt.co.nz/news/2022/05/02/swifter-rise-in-sea-level-predicted) (2 May 2022).

<sup>4</sup> James Higham, Xavier Font & Jialin (Snow) Wu (2022) Code red for sustainable tourism, Journal of Sustainable Tourism, 30:1, 1-13, DOI: [10.1080/09669582.2022.2008128](https://doi.org/10.1080/09669582.2022.2008128)

- 2.5 In regard to institutional reform, an adaptation plan should include a definition of a desired economy based on values that cover how to respect and care for people and the Earth, that is consistent with modern science, and in particular, acknowledges ecological overshoot, planetary limits, and the climate science.
- 2.6 Wise Response approves of the NAP effort for clarity be brought to the governance arrangements, so that there is a clear allocation of responsibilities to know what needs to be done, by who, by when, and processes of accountability and reporting of outcomes. Mazey and Richardson <sup>5</sup> state that the current system resembles an endless conveyor belt of unsolved, or partially solved, policy problems that have a tendency over time to become bigger 'crises'. Lawrence, Wreford and Allan <sup>6</sup> have assessed the governance arrangements and reported that there is still ad hoc single-issue planning and a need for coordinated governance frameworks. We recommend in particular that a whole of sector approach be taken to the financial sector.
- 2.7 We agree that central government cannot do everything in the adaptation space, and we agree that every New Zealander and all of our institutions must be part of our adaptation journey. However, it is our view that the NAP does not do enough to specify roles and responsibilities among different actors, and in particular between central and local government.
- 2.8 We agree that passing legislation to reform resource management and to introduce a new framework for decisions about managed retreat are essential elements of any national adaptation plan. However, we are concerned that (1) there is in this and earlier consultations little reason to be optimistic that concrete steps towards making the clear decisions needed will be included in the new legislation, and (2) every additional year of delay makes inevitable adaptation action more difficult and more expensive.
- 2.9 Relatedly, the ongoing reform efforts in water and local government are both promising and troubling. The six-year time frame for setting a national direction on natural hazard management and climate adaptation through the National Planning Framework (p. 29) would entail six more years of uncertainty for at-risk communities and six more years of risky investments in places vulnerable to climate hazards. Even if the long time frame for reform efforts is needed, clear signalling in this year's NAP would reduce the uncertainty driving many of the worst outcomes under business as usual.
- 2.10 We agree that case studies are important (p. 34), but one of the main lessons from the case studies in the NAP consultation document is that general, predictable, equitable rules need to be agreed so that flood management schemes (Westport), managed retreat (Matatā), and hazard mitigation (Hawke's Bay) can be implemented with optimal results. Waiting for further case studies to demonstrate the urgent need for common rules is counter-productive.

### Recommendations:

R.1 – Ensure that the proposed actions will directly contribute to the objectives of the draft plan.

R.2 – Update the sea-level rise projections with latest data. Include a reference to the effects of increased temperatures on marine life, with specific reference to recent events in Fiordland.

<sup>5</sup> Mazey, S and J Richardson Aotearoa New Zealand Policy Process: fit for purpose? Policy Quarterly Vol 18, Issue 2 May 2022 Special Issue: Environmental Issues pp 93-99

<sup>6</sup> Lawrence, J, A Wreford and S Allan. Adapting to Avoidable and Unavoidable Climate Change: What must Aotearoa New Zealand do? Policy Quarterly Vol 18, Issue 2 May 2022 Special Issue: Environmental Issues pp 51-60

## 3.0 The natural environment

- 3.1 The water needs of the natural environment need to be given at least equal importance to the water needs of primary industries and rural communities, with specific reference to Te Mana o te Wai. Water quality, aquatic pest control and future issues relating to water supply due to climate change impacts are all key issues.
- 3.2 Objective NE1 discusses how healthy ecosystems will help the natural environment to best respond to climate impacts. Wise Response supports this statement, but note that resilience can only adequately deal with gradual change over longer time spans, as genetic selection eventually promotes the fittest individuals in a population. The likely speed with which current climatic change could occur may result in mass extinctions for some species.
- 3.3 Objective NE3 outlines the importance of restoring and protecting indigenous ecosystems, in order to support nature being able to build climate resilience. Wise Response is concerned that there is not an appreciation of how vast the areas needing restoration and protection are, especially in the Conservation Estate, being a third of the land area of New Zealand. This includes vast areas of hill and high country that have been overrun by invasive species that are very difficult to eradicate. Examples include hawkweed, brier rose, broom, gorse and wilding conifers. Wallabies, feral goats, pigs, deer, possums and rabbits are also problematic. The challenge of implementing landscape scale predator control needs to be carefully considered, particularly given the central government commitment to Predator Free 2050.
- 3.4 Maintenance of wetlands (for C storage) and upland and alpine systems, including tussock grasslands (for water production and soil conservation), are also of great importance in a successful adaptation.
- 3.5 The Southern Lakes Sanctuary is a landscape scale conservation project that across a 660,000 hectare project area encompasses a range of habitats from high alpine to bush-clad valleys across a range of land-holdings including DOC conservation estate, farm stations, council managed reserves, QEII covenant lands and private properties. The Southern Lakes Sanctuary trust recently coordinated a 5 day Conservation Standards Workshop which brought together representatives from local conservation groups, community led predator trapping projects, reforestation trusts, farm stations, DOC, QEII Trust, regional council and the United States Embassy (who were a co-funding partner). The hui and training workshop was the first of its kind in New Zealand to bring together such a wide range of conservation and land holding partners with a shared vision and focus on landscape-scale biodiversity outcomes. Wise Response strongly recommends that central government looks to support and leverage the learnings from these local-level initiatives to help accelerate progress towards the Predator 2050 vision and the natural environment adaptation challenges outlined in the National Climate Change Risk Assessment.
- 3.6 These landscape scale projects are also key to supporting the Department of Conservation Climate Change Adaptation Plan. This plan includes the possible adaptation action of translocating climate vulnerable species or pest control to improve the resilience of native ecosystems. As climate induced environmental alteration occurs, nationally there will be fewer and fewer options to relocate species. Restoration programs would need to deal with 100's of 1000's of km<sup>2</sup> of biodiverse indigenous forest, therefore planning at the landscape scale needs to occur.
- 3.7 The draft National Adaptation Plan indicates that territorial local authorities (TLAs) "must consider creating ecological corridors in response to climate change".

- 3.8 Also in relation to the NPS-IB, the careful allocation of resources to ensure that funding is spent carrying out the implementation 'on the ground' initiatives, not merely the introduction of new policies is encouraged.
- 3.9 Regarding the collection of actions run by Biosecurity New Zealand, Wise Response has the following feedback:
- 3.9.1 the National Interest Pest Responses (NIPR) programme should be expanded beyond the nine species currently included, with priority given to those likely to spread as a result of changing climatic conditions. For example, wilding conifers are not included, nor is *Lagarosiphon* or a number of other pest/algae species causing significant damage (didymo, lindavia).
  - 3.9.2 the biosecurity action relating to preventing the spread of wilding conifers makes no reference to land stability as a result of extreme rainfall events. Site specific risks such as slope stability following removal of wilding conifers, not just the risk of wildfire, need to be considered.
  - 3.9.3 the allowance of overseas investment in questionable carbon sequestration programs using un-managed, short-lived, softwood conifers on good, productive agricultural land throughout New Zealand is also very concerning.
  - 3.9.4 control measures for existing pest species already within New Zealand also need to be targeted, in addition to new risks. This is something recently highlighted by the damage on titi chicks a single ferret caused overnight in the Catlins, and by the rapid spread (in part human induced) of wallabies from South Canterbury into Otago.
- 3.10 In reference to the supporting actions listed in the draft plan for the natural environment, Wise Response makes the following comments:
- 3.10.1 the National Policy Statement on Freshwater Management 2020, adaptation action for freshwater bodies will require the collaborative efforts of many groups (catchment, iwi, conservation groups, local government, the wider community, etc).
  - 3.10.2 Wise Response supports and commends the Jobs for Nature Programme, but considers that funding should be targeted to local conservation efforts on the ground within TLAs, to address issues most at risk of significant climate change impacts in the near future
  - 3.10.3 in implementing the Sustainable Land Management Hill Country Erosion Programme, priority should be given to projects which enhance indigenous biodiversity, soil integrity and climate resilience. The National Policy Statement on Productive Soils is also relevant here, which calls for the conservation of highly productive soils by regulating and controlling urban spread
  - 3.10.4 the aim of the proposed forestry planning and advisory service is to provide data informed advice and planning tools. This is supported, but it is recommended that many commercial forestry entities have significant knowledge in this area that should be gathered and feed into this action.
- 3.11 It is noted that, while reference is occasionally made to "landowners", there is little specific reference to agriculture, horticulture or tourism and its role in ameliorating climate change throughout this section.
- 3.12 Wise Response applauds the effort to 'establish an integrated work programme to deliver climate, biodiversity and wider environmental outcomes' (p. 50), but we would note that this kind of integrated approach is required not only in 'work programmes' but also in decision



making procedures about adaptation and managed retreat generally. For example, in the decision-making about adapting to sea-level rise in the Hawke's Bay, little value was accorded to biodiversity outcomes despite nature-based solutions being one of the most effective ways to adapt to problems like coastal erosion and increased inundation events.

- 3.13 The area New Zealand has jurisdiction over is around 4 million km<sup>2</sup>, with the land area of 268,000 km<sup>2</sup>. The lack of inclusion in the NAP of marine ecosystems is a critical omission as these are biomes of importance in the carbon cycle. Especially important is the role of seaweed in carbon sequestration. Banning of bottom trawling is particularly important adaptation as this activity releases huge amounts of CO<sub>2</sub> as well as increasing ocean acidification.

#### Recommendations:

R.4 – Ensure appropriate understanding of the quantity of land requiring restoration and protection, especially in the Conservation Estate including alpine areas.

R.5 – Confirm timelines for the NPS- IB and requirements for councils.

R.6 – Recommend allocation of funding towards implementation 'on the ground' initiatives in the NZP-IB.

R.7 – Include reference to site specific risks such as slope stability following removal of wilding conifers, not just the risk of wildfire.

R.8 – Expand the NIPR programme beyond the nine species currently proposed, to include wilding conifers, *Lagarosiphon* and pest/algae species causing significant damage in our district (didymo, *lindavia*).

R.9— Give priority to projects that enhance and maintain indigenous biodiversity, soil integrity and climate resilience when implementing the Sustainable Land Management Hill Country Erosion Programme.

R.10—Target local conservation efforts through the Jobs for Nature Programme in TLAs.

R.11 – Expansion of marine reserves to 40% of New Zealand's Exclusive Economic Zone as well as taking steps to protect and encourage kelp as a significant carbon sink, and putting in place a total ban on bottom trawling.

## 4.0 Homes, Buildings and Places

4.1 We at Wise Response are happy to see the scale of the adaptation challenge recognised in this section (p. 53), though we worry that the NAP as it stands has not internalised this lesson yet. For example, the long time of uncertainty, many players' efforts, and millions of dollars associated with resolving the properties at risk of natural hazard at Matatā involved only a few dozen properties.

4.2 Wise Response supports the plan to build property resilience through research and information, but supports the addition of a bright line date after which investors are deemed informed about the risks associated with their properties (as in the UK's flood reinsurance scheme, p. 97). This would also support the goal of limiting government liabilities while still supporting vulnerable communities facing natural hazards of both the slow and fast onset types. There is some language in this direction on p. 57.

4.3 Wise Response supports improving natural hazard information on Land Information Memoranda (p. 61, p. 79) for similar reasons already stated: clear information allows us to plan for risk reduction and live within biophysical limits. Improved LIMs would also reduce the asymmetry between sellers and buyers of properties at risk of climate change related hazards.

4.4 Overall, Wise Response notes that planning for risk reduction and living within biophysical limits should seek to guide our housing policy as soon as possible, and thus we are not in favour of the long lead times anticipated in this section. Dynamic planning should make it possible to set limits that are revisable as new information and new contexts arrive.

**Recommendations:**

R.12 – Ensure that investors are informed about natural hazard information and risks associated with property development to limit government liabilities.

R.13 – Planning for risk reduction and living within biophysical limits must guide housing policy as soon as possible.

## 5.0 Infrastructure

5.1 Wise Response recommend that the next draft of the NAP include a more comprehensive and long-term understanding of climate risk. This should include: The inability of renewable or non-polluting energy to materially replace existing energy provided by fossil fuels, certainly not in the time available; The economic impact of wide fluctuations in international economic activity, including market failures and dislocations (financial system instability is mentioned, but more information should be provided); Geopolitical shifts and disruptions as nations, groups within nations, and blocs suffer adverse conditions and attempt to adjust to shifts in economic and military power; Consequences of major likely social upheavals, as our current lifestyles are not compatible with dealing with the climate emergency.

5.2 We support the effort to integrate adaptation into Treasury decisions on infrastructure, because this kind of planning reduces risks including especially the risk of maladaptive decisions.

5.3 Wise Response opposes investment in the New Zealand Battery Project (p. 67) even if the feasibility study comes back with a positive recommendation. In our view, investment in energy efficiencies such as insulated housing and public transportation provide a much higher return than investments aiming to expand overall energy system storage capacity. The former type of investment (in efficiency) is a much more prudent use of public resources, and the benefits of that type of investment are multiplied by their immediate additions to well-being (warm, dry homes, active transport, socially better cities, and so forth).

5.4 Wise Response supports the efforts to investigate and remediate contaminated sites and landfills. We would note that while volunteer efforts like the ones at Fox River and Westport are inspiring, they cannot replace pro-active efforts to prevent the harms from occurring in the first place.

**Recommendations:**

R.14 – Integration of adaptation into Treasury decisions on infrastructure investments to reduce risks of maladaptive practices.

R.15 – Investment in energy efficiency through housing insulation and public transportation for a much higher return.

## 6.0 Communities

6.1 The effort to support the most vulnerable in adaptation to climate change is recommended. We would note that renters and young people (rangitahi) are also disproportionately disadvantaged by these risks.



6.2 Wise Reponse agrees that ‘directing development away from high-risk areas’ is essential to the NAP (p. 75). A key element in this effort must be certainty about responsibilities for redressing losses, delivered urgently so that we can get on with the hard work of adaptation without worrying about the distribution of advantages and disadvantages. So long as investors believe that they can distribute their risks to society, they will continue to locate scarce resources in at-risk areas.

6.3 Wise Response applauds the investment in climate education (79). We would note that our interns have been involved for several years in improving climate education and understanding carbon accounting in schools.

6.4 Wise Response would note that there are promising efforts to engage communities in planning for adaptation ongoing (for example, in Dunedin), and we would add that much more could be done with leadership from central government. We particularly would like to see central government guidance and funding for local efforts to discuss climate adaptation as part of Te Tiriti-led citizens climate assemblies.

#### **Recommendations:**

R.16 – Support be given to those most vulnerable to climate change, especially renters and youth.

R.17 –Direct development away from areas at high-risk of climate change and sea-level rise.

## 7.0 Economy and Financial System

### 7.1 Tourism

7.1.1 In New Zealand, tourism, agriculture, fishing and aquaculture are very large industries that depend on climate sensitive natural resources. Rising temperatures and reduced snow fall are key risks to the regional economy due to the corresponding loss of tourism revenue from the winter ski season. Sudden adverse weather events at any time of year also pose a risk to visitor activity, as these frequently revolve around the natural environment.

7.1.2 Some TLAs are in the process of finalising a Destination Management Plan (DMP) in partnership with the Regional Tourism Organisations (RTOs). The DMP will be focussed upon the achievement of regenerative tourism by 2030, reorientating the whole tourism system toward tourism that benefits our communities, our businesses, our iwi and Māori partners and our environment.

7.1.3 There are only a few recognised regenerative tourism destinations currently, but the DMP will seek to attract values-driven visitors, for whom regenerative travel is important. Levers to effect change are limited at a local level, but a movement toward regenerative travel is already underway, with good examples of visitor behaviours and business initiatives showcasing the potential for change.

7.2 Agriculture. Wise Response supports continuing the delivery of the Sustainable Food and Fibre Futures Fund, and recommend that additional measures based on Nature-based Solutions (NbS) be considered as part of this, such as:

7.2.1 grazing optimisation that exploits the inherent capacity of grasses (and legumes) to recover following defoliation

7.2.2 crop nutrient management that involves the proper rate of application, applying the proper type of nutrients appropriately and at the correct time

7.2.3 biochar, a charcoal-like substance that is made by burning organic material from agricultural waste by pyrolysis

7.2.4 conservation agriculture as a sustainable farming method that is based on crop diversification, minimal soil movement and permanent soil cover

7.2.5 trees in croplands, with a focus on native hardwoods, as trees store vast amounts of carbon, and provide shelter, prevent erosion, diversify production and maintain moisture levels

7.2.6 restoration of wetland and peat wetland. Peat wetlands in particular are super carbon sinks. They hold twice as much carbon as all of the world's forests combined, and cover about 3% of earth's land surface

7.2.7 fire risk management. Regional wildfire management planning needs to be improved to identify the risk mitigation measures that will be implemented to reduce the risk of wildfire to agriculture. Expert advice has been prepared on what plant species have low flammability, and so should be considered for plantings over high flammability species, that includes most conifers, eucalypt species and gorse.

7.3 Wise Response raises concerns that Aotearoa New Zealand's current reliance on a type of industrial agriculture that is unsustainable and the increasing volatility of the international food system. Because of the slow response by many in the New Zealand agricultural sector to recognise the threat of climate change, and hence the slow response to prepare any plans for how the sector will adapt, it is not possible to critique any such plans. There is plenty of anecdotal evidence of individual farmers who have taken positive steps to prepare for a warming world but an overall picture of appropriate adaptation plans is not yet included in the NAP.

7.3.1 Regarding adaptation of the food economy, Wise Response would prefer that the next draft of the NAP include consideration of resilience in marine and terrestrial transport of food and other products.

7.3.2 Current food transport practices are not responsive to either biophysical limits or broad issues of well being and utility, nor are they resilient to global supply shocks that we should expect to increase in frequency and severity (p. 87).

7.3.3 Wise Response notes that adapting our food economy to be resilient to climate and other sustainability crises would likely involve reduced transport costs and emissions while increasing sector diversity and strengthening domestic production capacity.

7.4 In addition, the international situation regarding food is and will continue to be volatile. A recent *Economist* talks about the coming food catastrophe.<sup>7</sup> As the world warms towards 2°C plus, this volatility will continue. New Zealand needs to prepare a food adaptation plan against these scenarios. We recommend that urgency be given to the preparation of an adaptation plan for the agricultural sector, and the preparation of a food adaptation plan.

7.5 Wise Response agrees that future calculations of the Government's future fiscal positions should include potential shocks from 'non-linear or "tipping point" changes' (p. 87).

7.6 On p. 37 there is reference to the development of a green taxonomy to support climate positive investment. Wise Response strongly supports this effort. In a letter to government last year, we shared the work we have done to show the unethical nature of the majority of Crown Financial Institutions and Kiwisaver Funds, with unvalidated codes of conduct, and investments in banks that

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<sup>7</sup> Economist. The Coming Food Catastrophe. May 21 2022.

invest in fossil fuels amongst other environmentally destructive investments.<sup>8</sup> The portfolios of nearly all the funds we reviewed contain banks listed among the 60 banks that invested a total of \$3.8 trillion into fossil fuels from 2016–2020. The environmental section used a schema that is similar to the environmental principles of Palmer and Clarke.<sup>9</sup>

7.7 The draft plan states that it is supporting climate change objectives through its approach to the public finance system. This includes the establishment of the Climate Emergency Response Fund (CERF) and our Sovereign Green Bond (Green Bond) programme. However, this is not the case with the New Zealand Superannuation Fund, the Accident Compensation, Kiwisaver Funds, which currently have around \$55, \$50 and 81 billion respectively under investment. A large majority of that investment is unethical and therefore of risk leading to maladaptation. The Codes of Conduct or Charters are not validated.

7.8 Wise Response is deeply skeptical about proposed work to develop options for home flood insurance (pp. 90-1). Of course, we should continue our tradition of solidarity in support of neighbours facing natural hazard. One way to apply this principle of solidarity to climate change risk would be to pre-fund a national insurance scheme similar to the one we have for earthquakes and in a more limited way for other natural hazards. However, it is absolutely essential that we do not simply step in to subsidise insurance in areas deemed too risky for the private sector insurance market. This is what has been happening elsewhere in the world, and particularly in the United States, with the result that public resources are employed to repeatedly rebuild properties in the riskiest locations (a textbook case of maladaptive policy).

#### **Recommendations:**

R.18—Encourage further collaboration with MBIE on the Tourism Industry Transformation Plan.

R.19—Prioritise work on meeting the costs of a climate-resilient tourism sector.

R.20— Utilise the Destination Management Plans that all RTOs have been required to prepare, to encourage better climate mitigation and adaptation behaviours.

R.21 – Include additional actions outlined in Nature-based Solutions (NbS) outlined above.

R.22 – Diminish reliance on industrial scale agriculture, fishing and aquaculture.

R.23 – Prioritise climate change investment in the public finance system. Oppose financing fossil fuels and other industries that destroy the environment.

## 8.0 Managed Retreat

8.1 Wise Response expects that adaptation to climate change will become the new normal, an ongoing part of collective life as the consequences of locked in as well as future emissions affect our physical environment. The main adaptation options of avoiding risk, protecting against it, and retreating from it will continue to define our decisions in this space, but we expect that avoiding risk will become increasingly difficult while retreating from it will become increasingly necessary (though of course in a context of deep uncertainty no one can say for certain what our options will be).

<sup>8</sup> <http://wiseresponse.org.nz/2022/04/19/ethical-and-environmental-standards-for-investment-in-new-zealand/>

<sup>9</sup> Palmer, G and R Clarke A New Natural Environment Act is Needed – Now. Policy Quarterly Vol 18, Issue 2 May 2022 Special Issue: Environmental Issues pp3-9

8.2 Wise Response supports the objectives and principles listed for managed retreat legislation and funding, but would add this one: 'to establish a sufficient, secure, and fair source of funding for managed retreat'. (pp. 11-12)

8.3 Wise Response agrees that costs will be lower and benefits higher if early action is taken and early investments made (p. 13).

8.4 Wise Response agrees that it would be better for roles and responsibilities to be clarified and to move away from the model of ad hoc central government engagement (p. 15).

8.5 Wise Response expresses surprise that question 62 is asked seriously. There is a long common law and statutory tradition in this country, as well as strong popular expectation, of government responsibility for keeping people safe from natural hazards as much as possible. The idea that people should be allowed to withdraw from the community (and that is what being allowed to remain in areas deemed unprotectable amounts to) stands opposed to centuries of law and the very idea of a social contract. Wise Response answers question 62 as follows: people should not be allowed to reside in areas where the authorities have determined that they are not safe from natural hazard.

#### **Recommendations:**

R.24—Clarify rules, roles, and responsibilities around managed retreat and flood insurance.

R.25—Stop entertaining the idea that people could voluntarily opt out of government protection from natural hazard and turn to the necessary task of regulation for continued protection under conditions of deep uncertainty.