

Submission

Te mahere urutaunga ā motu (tuhinga hukihuki): Draft National Adaptation Plan and the Adapt and Thrive - Managed Retreat document
23 May 2022

About the Institute

The McGuinness Institute was founded in 2004 as a non-partisan think tank working towards a sustainable future for Aotearoa New Zealand. *Project 2058* is the Institute's flagship project focusing on Aotearoa New Zealand's long-term future. Because of our observation that foresight drives strategy, strategy requires reporting, and reporting shapes foresight, the Institute developed three interlinking policy projects: *ForesightNZ*, *StrategyNZ* and *ReportingNZ*. Each of these tools must align if we want Aotearoa New Zealand to develop durable, robust and forward-looking public policies. The policy projects frame and feed into our research projects, which address a range of significant issues facing Aotearoa New Zealand. The seven research projects are: *CivicsNZ*, *ClimateChangeNZ*, *OneOceanNZ*, *PandemicNZ*, *PublicScienceNZ*, *TacklingPovertyNZ* and *TalentNZ*.

About the cover

The image illustrates the number of climate mentions in government departments strategies. See the 2021 *GDS Index, Working Paper 2022/04 – Analysis of Government Department Strategies Between 1 July 1994 and 31 December 2021*.

1.0 INTRODUCTION

The Institute welcomes the opportunity to offer feedback on MfE's two draft adaptation documents, this submission relates to both the *Draft national adaptation plan* and the *Adapt and Thrive - Managed Retreat document*.

The *Draft national adaptation plan* and *managed retreat document* (referred to as NAPs) in combination with the recently released Emissions Reduction Plan (ERP) provides a unique opportunity to reshape how information, instruments, institutions and investment can align with domestic targets and international climate change commitments.

Due to Covid-19 illness effecting staffing, the Institute has limited time and capacity to make a full submission within the timeframe, but we acknowledge the importance of the NAPs so are providing a short submission. The Institute welcome's being part of the ongoing conversation about the future direction of climate change adaptation in Aotearoa New Zealand.

The Institute has not embarked on answering the specific questions outlined, as the Institute believes that the base of public policy thinking in the NAPs requires further work. This submission should, however, be read across all the questions asked.

What we found

The draft states: 'Actions within this plan focus on six outcome areas:

1. system-wide actions
2. natural environment
3. homes, buildings and places
4. infrastructure
5. communities
6. economy and financial system.' (p. 22)

2.0 DISCUSSION: WHAT THE INSTITUTE THINKS

The plan as it stands is still in its infancy; it is in the Institute's view, a traditional inputs based approach. It contains five sectorial strategies, with one overarching outcome area. There is no explanation as to why these six have been chosen, how they might co-exist or if tensions exist, how they might be identified and how they might be resolved. Another approach (ideally outputs focused) is urgently needed.

Futurists often use the description of the age of a conversation in years; for example an under 5 conversation, a teenage conversation, a twenty something conversation, etc. This is used to describe how much further a conversation needs to go, rather than describing an immature conversation. What was clear in reading the NAPs, was how much more work is required before we can get ahead of climate change.

Below are two quotes that the Institute considers might help explain our response to the NAPs. The first is by the Chatham House think tank, in their Chatham House report: *Climate change risk assessment 2021: The risks are compounding, and without immediate action the impacts will be devastating (2021)*.

'Cascading climate impacts can be expected to cause higher mortality rates, drive political instability and greater national insecurity, and fuel regional and international conflict. During an expert elicitation exercise conducted as part of the research for this paper, the cascading risks that participants identified greatest concern over were the interconnections between shifting weather patterns, resulting in changes to ecosystems and the rise of pests and diseases. Combined with heatwaves and drought, these impacts will likely drive unprecedented crop failure, food insecurity and migration. In turn, all will likely result in increased infectious diseases, and a negative feedback loop compounding each impact.' (p. 3)¹

The way the NAPs are broken down in no way creates space for a conversation on the complexity, cascading impacts and uncertainty we face. The NAPs read as though the problem can be divided and

solved by looking at inputs. In contrast, the Institute suggests that a closer look at the outputs and outcomes is required. For example, our discussion paper on New Zealand King Salmon covers five of the six so-called outcome areas. *Discussion Paper 2022/02 – New Zealand King Salmon Case Study: A financial reporting perspective*² transverses the natural environment, infrastructure, communities and the economy and financial system.

The second quote explains why we need to reflect on what we are trying to achieve. Michael Lewis latest book, *The Premonition* (2021), explained the problem of silo thinking this way:

One day some historian will look back and say how remarkable it was that these strange folk who called themselves “Americans” [read New Zealanders] ever governed themselves at all, given how they went about it. Inside the government were all these little boxes. The boxes had been created to address specific problems as they arose. “How to ensure our food is safe to eat,” for instance, or “how to avoid a run on the banks,” or “how to prevent another terrorist attack.” **Each box was given to people with knowledge and talent and expertise useful to its assigned problem and, over time, those people created a culture around the problem, distinct from the cultures in the other little boxes.** Each box became its own small, frozen world, with little ability to adapt and little interest in whatever might be going on inside the other boxes. People who complained about “government waste” usually fixated on the other ways taxpayer money got spent. But here was the real waste. One box might contain the solution to a problem in another box, or the person who might find that solution, and the second box would never know about it. (pp. 78-79)³ [bold added]

The Institute agrees with Judy Lawrence, Anita Wreford and Sylvia Allan (*Policy Quarterly* Vol 18, Issue 2 May 2022) in that Aotearoa New Zealand has a fast closing window of opportunity, and that adaptation is more than a single set of actions at a single point in time. Climate risks are dynamic, and already impacting on people’s lives.

Safety should be paramount, people will die

The Institute advocates that the NAPs need to be amended to ensure that the hierarchy of priorities is based on reducing risk (current and intergenerational risk), reducing harm, minimising loss of life, and maximising wellbeing and opportunity.

In the opening, Minister Shaw speaks to communities currently grappling with the issues of adaptation. To date, if the experience of Matata (Bay of Plenty) is anything to go by, we have a long way to go to close the adaptation gap and get ahead of this policy issue.

The adaptation plan should be clear as to what it is adapting to; what would success look like. Success, or, the resilient future state of Aotearoa New Zealand needs to be defined (the desired end) before an integrated plan (how to get there) can be developed. Then, the questions of accountability and liability that are somewhat silent in the NAPs could be better explored. The following checks need to be made explicit in the NAPs:

- Who currently bears the risk and who gets the reward? Is this fair and just?
- What options need to be identified and costed?
- Have trade-offs/tensions been identified?
- Have consequences been considered? (e.g., if this, then what?)

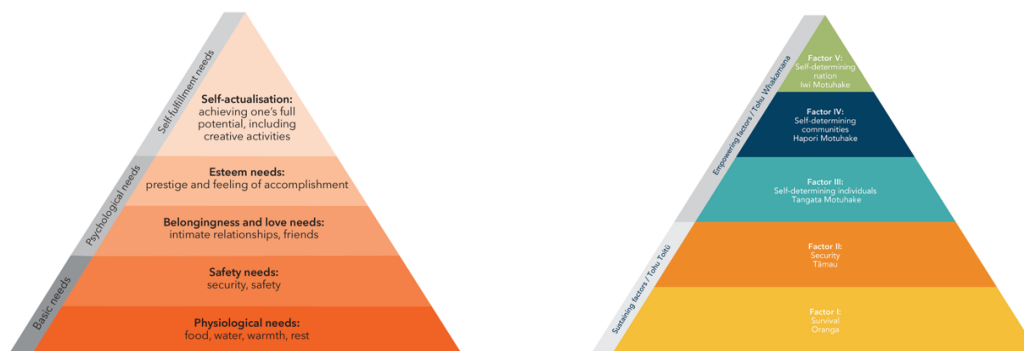
The Institute considers the concept of antifragility (as described by Nassim Nicholas Taleb) to be appropriate here. Taleb’s concept of change is that in times of uncertainty you should design your systems to not only withstand shocks but to also become stronger because of them. In terms of climate change, this means that you need to be both clever and simple; clever in terms of knowing what to invest in and simple in terms of being clear and able to move quickly to new ways of operating, living and thinking.

Alternative approaches exist

It would seem better to focus on the things current and future generations ‘need to live’ and ‘live to need’.

(i) Need to live: That comes down to a small number of basic life supporting capacities (products): supply of food, water, shelter (housing), and energy for warmth (the bottom of Maslow’s hierarchy). In 2018, the Institute undertook a number of workshops around the country bringing communities together to answer the question how they might tackle poverty. The results were written up *Working Paper: Tackling Poverty NZ 2016 Tour: Methodology, results and observations*.⁴ The Institute found that local communities have different characteristics and needs, and that there was no one solution. The Institute believes that climate change will have a multiplier effect on poverty and that we need to work a lot harder to identify, agree and provide some form of safety net/trampoline. Figure 1 (below) illustrates the learnings from the workshop (right) compared with Maslow’s hierarchy (left). What is clear is that the solutions will need to be locally designed and generated. This goes against the current trend to centralise public policy. The NAPs also seem to be trying to centralise policy solutions instead of building capability and insights in the communities.

Figure 1: Alternative approaches exist



A recent May 2022 report by the Climate Council Australian report, *Uninsurable Nation: Australia’s Most Climate-Vulnerable Places*, made this very clear. It stated:⁵

The percentage of properties that will be uninsurable by 2030 in each state and territory is 6.5% in Queensland; 3.3% in NSW; 3.2% in South Australia; 2.6% in Victoria; 2.5% in the Northern Territory; 2.4% in Western Australia; 2% in Tasmania and 1.3% in the ACT. (p. III)

(ii) Leverage/Uplift: Related to these basic products is efficiency and effective services: improving health, education, and transport networks etc. These are the basic networks and knowledge that make the basic products more durable and reliable.

(iii) Live to need: This comes down to what we want; strong connected communities, retaining our diverse cultures and maintaining safe and thriving ecosystems.

If the plan took this approach, the key planning questions become:

- What would it take to provide a safety net on these basic life supporting capacities (products)?
- What would it look like? What would it cost? Who pays for it? How is it funded? (etc)
- How do we describe and draw lines? How do we support those beneath the line?
- What regional communities or groups within a national community may be significantly impacted?
- Are there ways we can leverage existing networks to make the system more antifragile?
- Where are we weak? What part of the service system is most vulnerable (e.g., powerlines)?
- What can be leveraged off the Emissions Reduction Plan (e.g., instead of coal)?

- How do we protect the special and more vulnerable aspects of our community and ecosystem so that we are strong and proud?

Common metrics and Targets are needed

The Institute considers that more evidenced public policy thinking needs to be included in the NAPs, including; asking more systems focused questions (identified above); options analysis; and presenting choices that are more integrated than what has been included in the draft NAPs.

A key policy gap is a shared measurement taxonomy. Please see the Institute’s recent submission on the XRB’s *Strategy and Metrics and Targets Consultation Aotearoa New Zealand Climate Standard 1: Climate-related Disclosures (NZ CS 1)*.⁶ Recommendation 10, on page 5, recommends that MfE prepares an environmental measurement taxonomy, so that shared language and common measurement processes are used for all types of decision making, such as: resource-based decision making (e.g. to help the judiciary make decisions on the national environment), financial decision making (including insurance and loans), supply and consumer decision making and whether or not companies have a social licence to operate. We need to create a common base for a longer and deeper conversation.

The proposed NAPs do not appear to be bench marked against what is currently being done, and by who. A clearer picture of the landscape, governance and proposed funding mechanisms needs to be included to advance this national discussion, as does evidence of the trade-offs being made (with supporting figures and evidence).

The Institute identifies value in developing a matrix⁷ or map that proposes to address issues of adaptation limits, and ensure that the policy interventions and investments are adequate to address the inter-generational burdens and risks of climate change.

The broader policy settings are wrong

In recent years the *Budget* has tended to set the general direction of public policy. In the latest Budget, the Environment sector and Primary sector were combined, arguably pushing environment further down hierarchy, rather than being a primary issue for discussion and debate around the Cabinet table. The primary sector and the environment sector have very different goals and the Institute suspects that hard decisions will be further delayed as a result.

A second aspect of the *Budget* was the creation of pilots, establishing two clusters of agencies:

The Government is also piloting the establishment of two clusters of agencies in the Justice and Natural Resources sectors. This will support inter-agency collaboration, help Ministers to collectively direct spending and make trade-offs across related areas, support medium-term planning, and put a greater focus on value for money. As part of Budget 2022, agencies and Ministers in each cluster have:

- identified priorities to inform where they should focus their collective effort in the next three years, and to support investment decisions for Budget 2022
- participated in a review of the efficiency, effectiveness, sustainability and resilience of current spending, and determined future funding requirements
- developed joint spending proposals covering Budgets 2022-2024 to provide greater funding certainty in the medium term. (pp. 11-12)

This is also problematic, in that the Natural Resources Cluster identified the following eight priorities; however, these are not really priorities, and even if they were you would not select eight (you would select 3 or 4 max). Their eight priorities are:

1. Improving biodiversity and biosecurity
2. Improving marine system resilience
3. Implementing natural resource system reform
4. Building a more inclusive and sustainable economy
5. Enabling climate resilience

6. System stewardship responsibilities
7. Iwi and Māori partnerships
8. Science and evidence (p. 27)

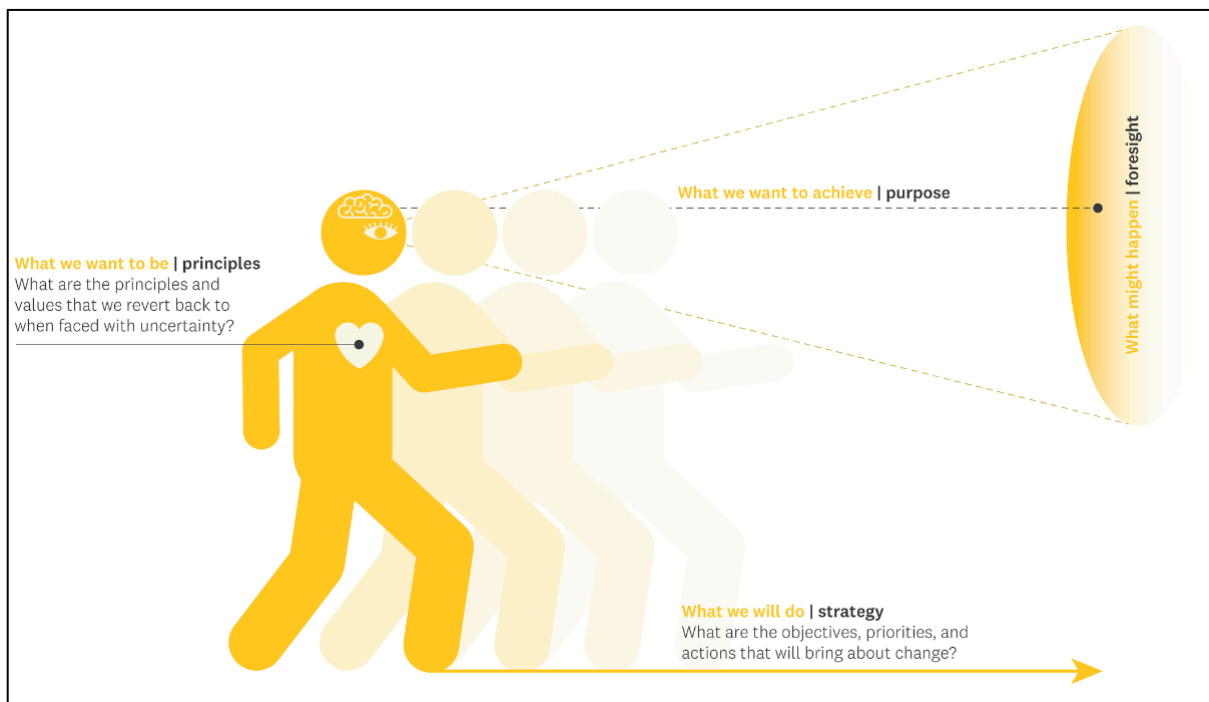
It is as though there is little disciplined thinking being applied to the environment; if we have a climate emergency, why is the environment sector being demoted? And why did a new cluster, established in 2022, identify that only one (out of eight priorities) was related to climate change resilience? It feels more like 2000 than 2022. If we are going to get ahead of climate change, the Natural Resources cluster should have selected three or four specific climate change priorities. We need to get deeper and more detailed in what we need to focus on. Importantly, this is not MfE's fault, but is a symptom of a very unresponsive system. It sets off some very loud alarm bells.

More discipline is required; differences between principles, purpose and strategy exist for a reason

The Institute does not agree with the proposed vision, principles and objectives as they are currently drafted in the NAPs. The principles, in our opinion, are poorly conceived, ambiguous and lack prioritisation in the right areas. As drafted, it is also unclear what the distinction is between principles and objectives.

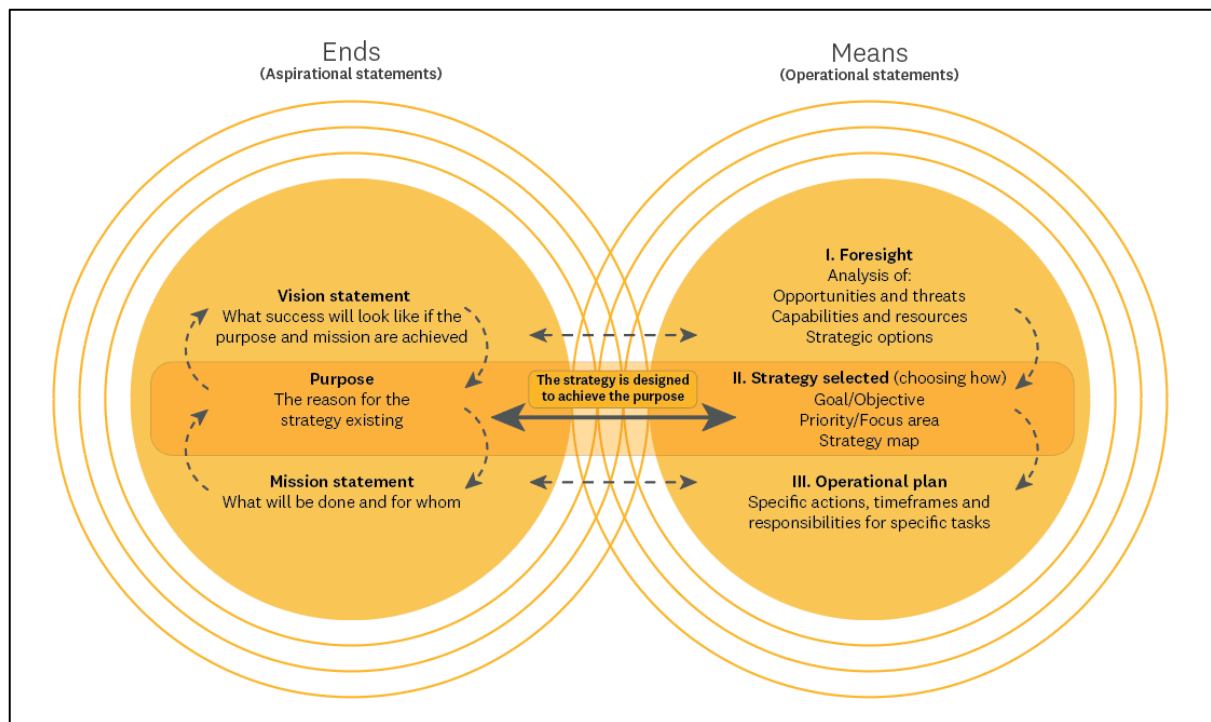
Once again, this is not solely an MfE problem, the public policy framework is lacking rigour and discipline. Terms are being used without real thought as to what they mean. This has become increasingly evident from our 2021 *GDS Index* (which is being launched mid-June 2022). To help articulate the distinction between principles, purpose and strategy, the Institute has produced the following two illustrations.

Figure 2: The distinction between principles, purpose and strategy



Strategy and purpose must be aligned, and linkages between foresight and planning must have coherence.

Figure 3: Designing an effective strategy is difficult



Furthermore, the assumptions that underpin these principles are outdated (rooted in a cost-benefit paradigm) and seem to primarily focus on limiting the Crown’s fiscal exposure. Instead, such assumptions and principles should be viewed from a risk-opportunity perspective⁸ and developed through a lens of foresight, where priority is placed on reducing risk and maximising wellbeing across society.

It is unsurprising that such concerns are raised when considering the that current vision statement is founded on a *fair, low cost, and ordered manner*. These concerns make it difficult to picture how they can come together to create certainty or provide a clear direction for coordinated government action. A strategy, in response to the adaptation measures that are needed, must inspire ambition and create trust and confidence that the safety and wellbeing of vulnerable communities is prioritised.

The Institute suggests that the proposed vision, principles and objectives should be recast so that the foundation of the legislation and subsequent NAPs are action-oriented and outputs focused, based on stewardship commitment and prioritises building socio-cultural trust.

It is also unclear why there are four different sets of proposed principles and objectives across the draft NAPs. Principles must be solid, centralised and consistent. Principles are what we revert to when the rules no longer work. Unfortunately, there are no clear rules that can be applied in a consistent, fair and regular manner. The principles are all we have, so we need to get them right. If we are clever, we should be able to create some rules, but they take time; time to observe; time to test; time to reflect; time to consult; time to write; and time to implement.

The Institute suggests framing the principles as; where decision makers and policy analysts might go; when they need to find solutions; make trade-offs; and explain tensions. This way the principles will be tested and ideally written in such a way to be fit for purpose.

3.0 THE INSTITUTE'S SUGGESTED PRINCIPLES

Appendix 1 contains a list of principles for discussion and consideration (including the NAP principles). Below are two sets of adaptation principles that the Institute considers exemplary. Table 1, further below, puts forward some suggested principles for MfE to consider.

A. *A Careful Revolution Towards a low-emissions future* (edited by David Hall). See Appendix 1:

Proposed principles of justice, Jonathan Boston and David Hall.

- Collective responsibility to act
- Te Tiriti o Waitangi aligned
- Duty of care
- Sharing the burden
- Polluter pays
- Protecting the least advantaged
- Enhancing the capacity to adjust
- Principle of pre-emption
- Tailored and targeted transitional assistance
- Collaboration, partnership and recognition
- Policy certainty
- Anticipatory focus
- Fiscal responsibility

B. World Bank. By Stephane Hallegatte, Jun Rentschler and Julie Rozenberg (2020)⁹

- Ensure development is rapid and inclusive and offers protection against shocks
- Facilitate the adaptation of firms and people
- Adapt land use and protect critical public assets and services
- Help firms and people cope with and recover from disasters and shocks
- Anticipate and manage macroeconomic and fiscal risks
- Prioritise, implement, and monitor interventions

Table 1: The Institute's suggestions

Table 1: The Institute's suggested vision statement, principles and objectives of the national adaptation plan	
Vision statement: NZ government facilitate rapid and inclusive adaptation to ensure our people, places and systems are antifragile (which means when shocks happen we aim to become stronger).	
Principles	1. Adopt a duty of care - minimise loss of life, loss of property, damage to key infrastructure etc so that people can continue to live a safe and healthy life
	2. Honour Te Tiriti o Waitangi
	3. Prioritise Te Taiao (e.g. working with nature, rights of nature and nature based solutions)
	4. Seek out and share accurate information in a timely manner (e.g., apply foresight, identify risks, collect data, seek out knowledge, manage risks, apply the precautionary principle, adopt the polluter pays principle).
	5. Be transparent and accountable (e.g., ensure fiscal accountability and liability is clear, agreed and future focused (i.e. intergenerational commitments), and durable public policy (where possible)).
	6. Be flexible, creative and open (e.g., test, pilot, experiment, fail fast, fail fair, review, reflect, learn lessons from other countries)
Objectives (a few examples)	1. Embed climate socio-ecological and socio-economic resilience as a core consideration in all decision making (link to GDSs but will need a mechanism or enabling provision to do this, potentially the Public Finance Act, Public Service Act or Climate Change Adaptation Act)

	2. Review and identify key infrastructure, that if disrupted, would impact significantly on the life and wellbeing of citizens (e.g., identify and rank specific infrastructure risks, and develop antifragile plans to strengthen key infrastructure).
	3. Require the National Emergency Management Agency (NEMA) to report publicly every year on how we might build a safe and resilient Aotearoa New Zealand, during and after climate change emergencies.
	4. Develop escape routes; both fast escapes (within hours or days, e.g., due to floods and fires) and slow escapes (over years, e.g., to higher ground).
	5. Develop a climate risk map for Aotearoa New Zealand, like the Australian Climate Council risk map. ¹⁰
	6. Ensure rapid and inclusive adaptation, clarify responsibilities, align incentives, ensure financing is available to all, adaptive institutions, frameworks, acknowledge that disruption and re-settlement will be part of this transition.
	7. Prepare an environmental measurement taxonomy, so that we can create a shared language and common measure of key data.

4.0 THE INSTITUTE'S FINAL THOUGHTS

Learning from our experiences

The draft NAPs lack broad systems perspective, and appears that it does not consider lessons from past experiences dealing with adaptation in Aotearoa New Zealand. Governing and institutional bodies must take into consideration the lessons that have been learnt from recent lived experiences of adaptation, such as the Christchurch Red Zones retreat¹¹ and Matatara forced retreat.¹² These experiences have showed how important it is to state very clearly who is liable, who is accountable and what the expectations for funding mechanisms are. As well as the importance of action orientated mechanisms and tools that enable people to get on with their lives.

It is important that the NAPs address and plan for transformative adaptation (such as land-use changes). There is reference to Government strategies, and it is important that anticipatory governance and foresight is incorporated into Aotearoa New Zealand's strategic landscape more to create a system that can identify and engage with risks in advance.

Unresolved issues

While the arrival of the draft NAPs is a very positive step forward, there still exists a lot of issues that remain unresolved. A lot of work is required to develop a smart, cohesive and effective strategy to respond to climate change (for example, see our GDS research findings in Appendix 2). It is hard to think of an policy area that climate change will not impact. There were 221 GDSs driving departments as at 31 December 2021; arguably given the climate emergency, all of them should be reviewed to consider the impacts of climate change.

Findings from the 2021 *GDS Index* evidence the Institute's ongoing concerns regarding the lack of a coordinated and targeted approach against climate change. In 2021, 19% (41 out of 221) of GDSs explicitly mentioned climate change (see definition in Appendix 2). The 41 explicit mentions had been made across 11 government departments, meaning that 15 government departments did not explicitly mention climate change in any of their strategy documents. As mentioned above, climate change will have a material impact across the operations of all government departments. Of particular concern, the Ministry of Health (MoH) and Ministry of Social Development (MSD) were among those 15 departments. Above all else, it is inevitable that the outputs of climate change will significantly affect the health and social outcomes of many communities across the country, especially (and unfairly) in vulnerable communities.

This observation illustrates that the current pace of which climate action is being realised in government departments is not urgent enough, significant enough, nor reflective of a declared climate emergency. The

Institute's main concern (as evidenced by this research) is that domestic climate policy and action continues to remain 'inputs focused'. To accurately and meaningfully identify and engage with action points that will alleviate negative outcomes for New Zealanders, this should instead be reframed to an 'outputs focused' approach. Aotearoa New Zealand can not afford for the NAP to follow a similar path.

A number of additional unresolved issues are listed below:

- Does not describe a desired future state, or what a resilient Aotearoa New Zealand looks like.
- Does not explain how adaptation is going to fit within the reformed regulatory spatial and planning system (RMA). There is a need for greater integration than what we are currently seeing.
- Does not identify what the Climate Adaptation Act (CAA) will cover and include.
- Does not answer the fundamental question of 'who pays for what?' Considering the lengthy list of costs associated with adaptation, there must be certainty around who is to be liable and accountable for what.
- Does not explain the funding process and mechanism of managed retreat more specifically.
- Does not reveal what compensation might be made available for property loss and damage – at residential, commercial and industrial levels.
- Does not offer insights into post managed retreat processes and management.
- Does not explain what specific institutional arrangements should be established to manage the challenging and complex processes associated with adaptation.
- No mention of post-retreat socio-investment, silent on the temporal nature of the NAP. How long term are we planning for?

If the Institute had more time for this submission, we would have liked to research the cost of the NAPs, as proposed. There are many constraints in the system and we need to understand what the costs are, where the costs fall and on whom. The Institute suggests MfE to ask Treasury to provide an estimated cost of the draft NAPs as they stand, in order to understand where the big costs exist. As Ernest Rutherford said: "We haven't got the money, so we'll have to think".

Appendix 1: Alignment of principles (global, domestic, plan)

Appendix 1 aims to compare the principles that underpin the draft NAP as well as subsequent adaptation work. This section has been included to illustrate the inconsistencies and concerns that the Institute has regarding the principles.

A. National adaptation plan

Principles for adaptation action	
Principles for including actions in the plan	1. Be proactive: Anticipate change and take practical steps to adapt.
	2. Think long term: Take an intergenerational perspective that spans political, planning and financial cycles, to plan for a changing climate.
	3. Maximise co-benefits: Use adaptations that achieve complementary goals while avoiding maladaptation.
	4. Promote equity: Prioritise helping the people, places and infrastructure that are most vulnerable to climate impacts, while building adaptive capacity for all.
Principles for implementing actions	1. Collaborate: Adapt in partnership with iwi, hapū, Māori and all New Zealanders – ara whakamua.
	2. Adjust as we go: Design actions and decisions to be revisited and adjusted as circumstances change.
	3. Mainstream adaptation: Embed climate resilience as a core consideration in all decision making.
	4. Make well-informed decisions: Use the best available evidence, including science, data, local knowledge and mātauranga Māori.
	5. Work with nature: policies, planning and regulation should protect enhance and restore nature and that any impacts on nature should be mitigated as much as possible.
	6. Adapt locally: Enable communities to prepare for the unique risks and opportunities they face, and tailor intervention to the local situation.

B. Managed retreat supporting document

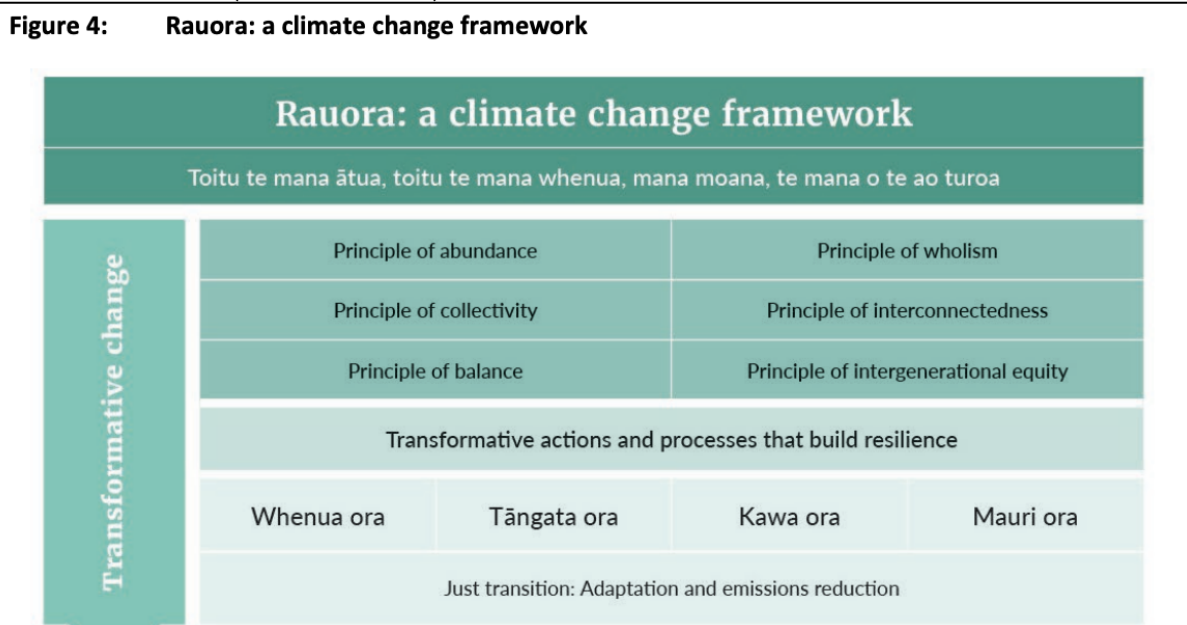
Table 1: Objectives and principles of legislation

Managed retreat	
Objectives	<ul style="list-style-type: none"> • To set clear roles, responsibilities and processes for managed retreat from areas of intolerable risk • To provide stronger tools for councils to modify or extinguish existing uses of land • To provide clarity on tools and processes for acquiring land and related compensation • To clarify local government liability for decision-making on managed retreat, and the role of the courts • To provide clear criteria for when central government will intervene (or not) in a managed retreat process
Principles	<ul style="list-style-type: none"> • Managed retreat processes are efficient, fair, open and transparent • Communities are actively engaged in conversations about risk and in determining and implementing options for risk management • Social and cultural connections to community and place are maintained as much as possible • There is flexibility as to how managed retreat processes play out in different contexts • Iwi/Māori are represented in governance and management and have direct input and influence in managed retreat processes, and outcomes for Iwi/Māori are supported • Protection of the natural environment and the use of nature-based solutions are prioritised

Table 2: Objectives and principles of funding responsibilities

Funding and financing adaptation	
Objectives	<ul style="list-style-type: none"> • To reduce hardship due to the impacts of climate change • To incentivise better long-term investment decisions concerning climate change risk • To reduce liabilities, including contingent liabilities to the Crown • To support the role of banking and insurance in facilitating risk management
Principles	<ul style="list-style-type: none"> • Limit Crown's fiscal exposure • Minimise moral hazard • Solutions are designed to be as simple as possible • Ensure fairness and equity for and between communities, including across generations • Beneficiaries of risk mitigation should contribute to costs • Minimise cost over time by providing as much advance notice as possible • Solutions support system coherence and the overall adaptation system response • Risks and responsibilities are appropriately shared across parties including property owners, local government, central government, and banking and insurance industries

C. Rauora framework (NAP document)



D. Principles behind the Paris agreement¹³

The Katowice climate package ([Annex to decision 18/CMA.1](#)) includes eight guiding principles for the modalities, procedures and guidelines of the enhanced transparency framework under the Paris Agreement, these are:

- Building on and enhancing the transparency arrangements under the Convention, recognizing the special circumstances of the LDCs and SIDS, and implementing the transparency framework in a facilitative, non-intrusive, non-punitive manner, respecting national sovereignty and avoiding placing undue burden on Parties;
- The importance of facilitating improved reporting and transparency over time;
- Providing flexibility to those developing country Parties that need it in the light of their capacities;
- Promoting transparency, accuracy, completeness, consistency and comparability;
- Avoiding duplication of work and undue burden on Parties and the secretariat;
- Ensuring that Parties maintain at least the frequency and quality of reporting in accordance with their respective obligations under the Convention
- Ensuring that double counting is avoided; and
- Ensuring environmental integrity.

Appendix 2: Mentions of climate change in GDS in operation as at 31 December 2021.

Source: See the 2021 *GDS Index, Working Paper 2022/04 – Analysis of Government Department Strategies Between 1 July 1994 and 31 December 2021* (in press).

Department	Government Department Strategy
Department of Conservation	Subantarctic Islands Research Strategy
	Mātauranga Whakauka Taiao – Environmental Education for Sustainability (jointly held between DOC and MfE)
	Sea lion/rāpoka Threat Management Plan 2017–2022 (jointly held between DOC and MPI)
	Government Tourism Strategy (jointly held between DOC and MBIE)
	Predator Free 2050 Strategy
	Te Kaweka Takohaka mō te Hoiho 2019–2029 (jointly held between DOC and MPI)
	Te Mana o te Taiao, Aotearoa New Zealand Biodiversity Strategy 2020
	Critical Ecosystem Pressures on Freshwater Environments (CRESP) 4 year research strategy
	Heritage and Visitor Strategy – He Rautaki Taonga Tuku Iho, Manuhiri Tūārangi hoki
	Digital Strategy 2020: Te pae tawhiti whaia kia tata – Navigating to new horizons
	Hector’s and Māui Dolphin Threat Management Plan 2020
Ministry for the Environment	National Implementation Plan Under the Stockholm Convention on Persistent Organic Pollutants
	Waste Strategy
	Mātauranga Whakauka Taiao – Environmental Education for Sustainability (jointly held between DOC and MfE)
	Our Science Strategy – Rautaki Pūtaiao
	Essential Freshwater (jointly held between MPI and MfE)
	Shared Interests in Freshwater
Ministry of Business, Innovation and Employment	Energy Strategy 2011–2021
	National Statement of Science Investment 2015–2025
	Energy Efficiency and Conservation Strategy 2017–2022
	Health Research Strategy 2017–2027 (jointly held between MoH and MBIE)
	Government Tourism Strategy (jointly held between DOC and MBIE)
	Small Business Strategy
	Our Employment Strategy
	Economic Plan for a Productive, Sustainable and Inclusive Economy
	Responsibly Delivering Value
	Agritech Industry Transformation Plan
	Building for the Future: Building System Regulatory Strategy
	Antarctic and Southern Ocean Research Directions and Priorities 2021–2030 (jointly held with LINZ, MPI, MBIE and MFAT)
Ministry of Transport	Framework for Shaping our Transport System
	Transport Evidence Base Strategy
	Government Policy Statement on Land Transport 2021/22–2030/31
	Maritime Security Strategy
	Rail Plan
Land Information New Zealand	Regulatory Stewardship Strategy
	Antarctic and Southern Ocean Research Directions and Priorities 2021–2030 (jointly held between LINZ, MPI, MBIE and MFAT)

Department	Government Department Strategy
Ministry for Primary Industries	Biosecurity Science Strategy for New Zealand – Mahere Rautaki Putaiao Whakamaru
	Harvest Strategy Standard for New Zealand Fisheries
	Aquaculture Strategy and Five-year Action Plan to Support Aquaculture
	Science Strategy – Rautaki Putaiao
	Biosecurity 2025 Direction Statement
	Primary Sector Science Roadmap – Te Ao Tūroa
	Sea lion/rāpoka Threat Management Plan 2017-2022 (jointly held between DOC and MPI)
	Essential Freshwater (jointly held between MPI and MfE)
	Aquaculture Strategy
	Food Safety 2019-2024
	Te Kaweka Takohaka mō te Hoiho 2019-2029 (jointly held between DOC and MPI)
	Antarctic and Southern Ocean Research Directions and Priorities 2021-2030 (jointly held with LINZ, MPI, MBIE and MFAT)
Department of Internal Affairs	Archives 2057 Strategy
	Strategy for a Digital Public Service
	Three Waters Reform Programme
	Regulatory Services Group Strategy 2021-2026
Department of the Prime Minister and Cabinet	Child and Youth Wellbeing Strategy 2019
The Treasury	Thirty Year New Zealand Infrastructure Plan
	He Puna Hao Pātiki – 2018 Investment Statement: Investing for Wellbeing
	He Tirohanga Mokopuna 2021
Ministry of Defence	Strategic Defence Policy Statement 2018
	Defence Capability Plan 2019
Ministry of Foreign Affairs and Trade	Opening Doors to China: New Zealand's 2015 Vision
	Trade Recovery Strategy
	Child & Youth Well-Being Strategic Action Plan 2021-2025
	Human Rights Strategic Action Plan for International Development Cooperation 2021-2025
	Antarctic and Southern Ocean Research Directions and Priorities 2021-2030 (jointly held with LINZ, MPI, MBIE and MFAT)
Ministry of Health	He Korowai Oranga – Māori Health Strategy
	Health Research Strategy 2017-2027 (jointly held between MoH and MBIE)
	Kia Manawanui Aotearoa – Long-term pathway to mental wellbeing
Ministry of Social Development	Better Late Life – He Oranga Kaumātua 2019 to 2034 – Super Seniors
Ministry of Housing and Urban Development	Te Tauāki Kaupapa Here a te Kāwanatanga mō te Whakawhanake Whare, Tāone anō hoki – Government Policy Statement on Housing and Urban Development
	MAIHI Ka Ora – The National Māori Housing Strategy 2021-2051 (jointly held between MHUD and MMD/TPK)
Ministry of Education	International Education Strategy – He Rautaki Mātauranga A Ao 2018-2030
	Action Plan for Pacific Education 2020-2030
Ministry of Māori Development	MAIHI Ka Ora – The National Māori Housing Strategy 2021-2051 (jointly held between MHUD and MMD/TPK)

Endnotes

- ¹ See Chatham House. *Climate change risk assessment 2021: The risks are compounding, and without immediate action the impacts will be devastating* (2021). Retrieved from 6 June 2022 at <https://www.chathamhouse.org/sites/default/files/2021-09/2021-09-14-climate-change-risk-assessment-quiugin-et-al.pdf>
- ² McGuinness Institute. *Discussion Paper 2022/02 – New Zealand King Salmon Case Study: A financial reporting perspective*. Retrieved from 6 June 2022 at <https://www.mcguinnessinstitute.org/publications/discussion-papers>
- ³ Michael Lewis, *The Premonition* (2021), (pp. 78-79).
- ⁴ McGuinness Institute. *Working Paper 2017/01 – TacklingPovertyNZ 2016 Tour: Methodology, results and observations*. Retrieved from 6 June 2022 at <https://www.mcguinnessinstitute.org/wp-content/uploads/2017/05/20170517-Working-Paper-201701-Final-WEB.pdf>
- ⁵ Climate Council. *Uninsurable Nation: Australia's Most Climate-Vulnerable Places* (2022), Retrieved from 6 June 2022 at https://www.climatecouncil.org.au/wp-content/uploads/2022/05/CC_MVSA0302-CC-Report-Federal-Election_V4-Single-1.pdf
- ⁶ McGuinness Institute. *Submission in Response to Strategy and Metrics and Targets Consultation Aotearoa New Zealand Climate Standard 1: Climate-related Disclosures (NZ CS 1)*. Retrieved from 6 June 2022 at <https://www.mcguinnessinstitute.org/publications/submissions>
- ⁷ Andreoni, A., *Varieties of Industrial Policy: Models, Packages, and Transformation Cycles*. Retrieved from 6 June 2022 at <https://www.degruyter.com/document/doi/10.7312/noma18050-009/html>
- ⁸ Sharpe, S. Mercure, J. et al. *Deciding how to decide: Risk-opportunity analysis as a generalisation of cost-benefit analysis*. Retrieved from 6 June 2022 at <https://www.ucl.ac.uk/bartlett/public-purpose/publications/2021/jan/deciding-how-decide-risk-opportunity-analysis-generalisation-cost-benefit>
- ⁹ World Bank. *The Adaptation Principles: A Guide for Designing Strategies for Climate Change Adaptation and Resilience*. Retrieved from 6 June 2022 at <https://openknowledge.worldbank.org/bitstream/handle/10986/34780/AdaptationPrinciples.pdf?sequence=1&isAllowed=y>
- ¹⁰ Climate Council. *Climate Risk Map*. Retrieved from 6 June 2022 at <https://www.climatecouncil.org.au/resources/climate-risk-map>
- ¹¹ Christchurch Red Zones Transformative Group. *Guiding Principles*. Retrieved from 6 June 2022 at <https://ccc.govt.nz/assets/Documents/Parks-Gardens/Gardens/Red-Zones-Transitional-Consultative-Group-Guiding-Principles.pdf>
- ¹² Radio New Zealand. *Matatā: The town that had to retreat*. Retrieved from 6 June 2022 at <https://www.rnz.co.nz/programmes/the-detail/story/2018843338/matata-the-town-that-had-to-retreat>
- ¹³ United Nations. *Guiding Principles for MPGs*. Retrieved from 6 June 2022 at <https://unfccc.int/process-and-meetings/transparency-and-reporting/reporting-and-review-under-the-paris-agreement/reporting-and-review-under-the-paris-agreement/guiding-principles-for-mpgs>