

RESILIENCE  
TO NATURE'S  
CHALLENGES

Kia manawaroa –  
Ngā Ākina o  
Te Ao Tūroa

# TE TAI WHANAKE

Growing a stronger, more resilient Aotearoa.

📍 Te Papa, Wellington 13 & 14 May 2024

# Adaptation for natural hazard resilience



**Chair:**

Dr Nick  
Cradock-  
Henry

*GNS Science*



Professor Iain  
White

*University of  
Waikato*



Dr Wendy  
Saunders

*EQC Toka Tū  
Ake*



Akuhata  
Bailey-  
Winiata

*University of  
Waikato*



Adjunct  
Professor Judy  
Lawrence

*Victoria  
University*



Lara Taylor

*E Oho!  
Awakening  
Aotearoa*



Dr Tom  
FitzGerald

*Wellington  
Regional  
Leadership  
Committee*

# Role of Adaptation for Building Enduring Natural Hazard Resilience

National  
**SCIENCE**  
Challenges

Nick Cradock-Henry (Chair)  
Wendy Saunders  
Iain White  
Akuhata Bailey-Winiata  
Lara Taylor  
Tom FitzGerald  
Judy Lawrence

RESILIENCE  
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# Pre-event land use planning

For risk reduction and adaptation

Wendy Saunders

*EQC Toka Tū Ake*

# Adaptation ~~vs~~ risk reduction



FOURTH NATIONAL CLIMATE ASSESSMENT  
CHAPTER 28: REDUCING RISKS THROUGH ADAPTATION ACTIONS

# What is pre-event land use planning?

Not a new concept, but gaining increasing relevance as we have more events

Involves thinking about what land uses could/need to change during the recovery period, before an event occurs

What governance changes are required to action those changes?

Encourages a resilient and sustainable approach to recovery

A plan can never predict what will happen, but it will prepare a council and community for a quicker recovery and more resilient relationships

# EQC (draft) methodology

Primarily aimed at Councils

Also relevant for central government agencies

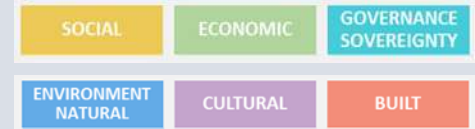
Aligns with EQC Risk Tolerance Methodology



## WHAT ARE THE HAZARDS AND RISKS THAT COULD IMPACT COMMUNITIES AND GOVERNANCE?

Understand the impacts of the hazard and risks  
 Identify gaps in knowledge  
 Understand the policies and rules that will be triggered and required during response and recovery e.g. district plan, CDEM Group Plans  
 Assess risk tolerance

### WHAT IS OUR ABILITY TO COPE WITH THE RISK?



## CONSIDER AND PRIORITISE RISK REDUCTION/ADAPTATION OPTIONS FOR A RESILIENT RECOVERY

SOCIO/ECON/BUILT CONSIDERATIONS	WHO IS AFFECTED	ACTIONS THAT CAN BE PLANNED FOR NOW	TIMELINESS	IS THE OPTION OK?
What is cost effective, timely, and aid recovery?	Which communities are most at risk What is their coping capacity	What could communities plan to change prior to an event e.g. what isn't working now, what are their concerns?	How much time will be saved during recovery? Will it have short, medium and/or long-term implications?	Who pays? Who decides? Who lives with the outcome?

## WHAT PLANNING PROCESSES MAY NEED CHANGE TO ENABLE A RESILIENT RECOVERY?

CONSULTATION	CONSENTS	POLICY CHANGES	MĀORI	CONSIDER
Iwi Community BAU DP Stakeholders Response & Recovery Stakeholders Pre-agreed arrangements	Fast tracking for recovery Debris disposal Earthworks AEE'S	Re-zoning of land Community relocation Temporary easing of restrictions More restrictive longer term policies Revised hazard extents (overlays)	Te Tiriti obligations Mana Whakahono a Rohe arrangements Implications for Māori land including developments	What are the existing problems? What needs to change? Are the options acceptable to the wider community, iwi, council, infrastructure providers? Which Orders in Council could be prepared?

## PREPARE AND IMPLEMENT PRE-EVENT LAND USE PLAN

Consult, draft, finalise and implement the plan

## USE THE PLAN TO INFORM OTHER PLANNING TOOLS

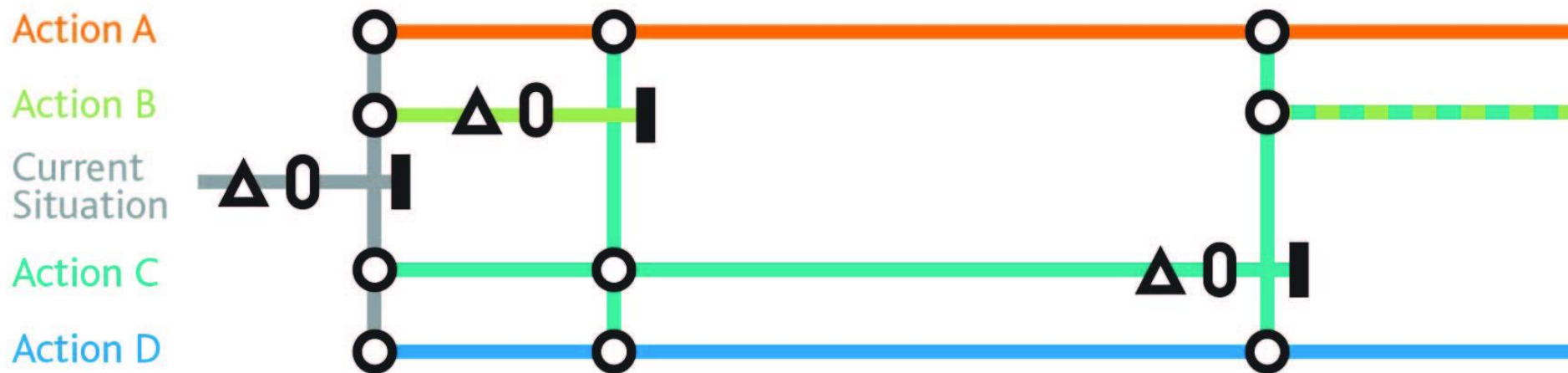
LEGISLATIVE	NON-REGULATORY	COMMUNITY BASED
Regional Policy Statement District Plan Regional Plan CDEM Group Plan Long Term Plans	Pre-event policy changes as a non-regulatory chapter in the district plan Structure Plans Spatial Plans Growth Strategies	Iwi/Hapū Management Plans Community Response Plans Adaptation Plans






# PRE-DEFINED CATEGORIES, CRITERIA AND RISK THRESHOLDS FOR LAND USE

Level of risk	Title	Explanation	Risk threshold	Metric
<b>Low</b>	<b>Permitted / Controlled</b>	Risk to people and property is acceptable; activity can occur with no or limited controls	N/A	Assessment of life safety is less than $10^{-6}$ – $10^{-5}$ per year (AIFR)
<b>Moderate</b>	<b>Discretionary</b>	Risk is accepted only if the benefit gained from repairs and protection is shown to outweigh the risk  Tolerable only if risk can be mitigated at a cost proportional to the benefit gained.	The sustainable use of the land can continue with cost effective risk reduction measures; and  Communities can cope with the impacts from natural hazard events.  The life safety risk and/or functionality of the land use can be managed to safeguard the future of the land use.  Infrastructure can be maintained and developed with effective risk reduction measures	Area being assessed will need to develop or use their risk tolerance thresholds based on local catchment characteristics  Area specific coping capacity indicators will need to be developed  Availability of insurance e.g., is insurance retreat a possibility?  Assessment of life safety is between $10^{-5}$ and $10^{-4}$ per year (AIFR)
<b>High</b>	<b>Non-complying / Prohibited</b>	Impacted by event(s), and  Imminent risk to life, and/or  Land damage makes rebuild technically or economically infeasible, and/or  Unacceptable future risk to assets (life, land, property, infrastructure etc) and compelling evidence (such as land damage assessments and recurring events) that no other solution can reduce risk to acceptable or tolerable level at an acceptable cost.	Resilience of the land use has or will soon be exceeded beyond sustainable risk reduction measures, with continued use of the land no longer sustainable; and/or  The coping capacity of a community, property or infrastructure has been exceeded, or will soon be exceeded; and/or  Life safety and/or functionality of the building is threatened beyond risk reduction measures; and/or  The consequential effects of the development on the environment will be irreversible.  'X' number of events leading to one or more of the points above have occurred in 'Y' years  Monitoring of the natural hazard and climate change risks is required to allow changes in risks to be managed.	Area being assessed will need to develop or use their risk tolerance thresholds based on local catchment characteristics  Area specific coping capacity indicators will need to be developed  Availability of insurance e.g., is insurance retreat a possibility?  Assessment of life safety is between $10^{-4}$ and $10^{-3}$ or greater per year (AIFR)  Tolerance to risk needs to be assessed, monitored and reviewed over time



# Links to dynamic adaptive pathways



-  Transfer point to new action and pathway
-  Adaptation threshold for policy action and pathway (no longer meets objectives)
-  Policy action and pathway effective
-  Trigger (decision point)
-  Adaptation signals

<https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/topic-based-plans-strategies/environmental-plans-strategies/aucklands-climate-plan/preparing/Pages/DAPP.aspx>

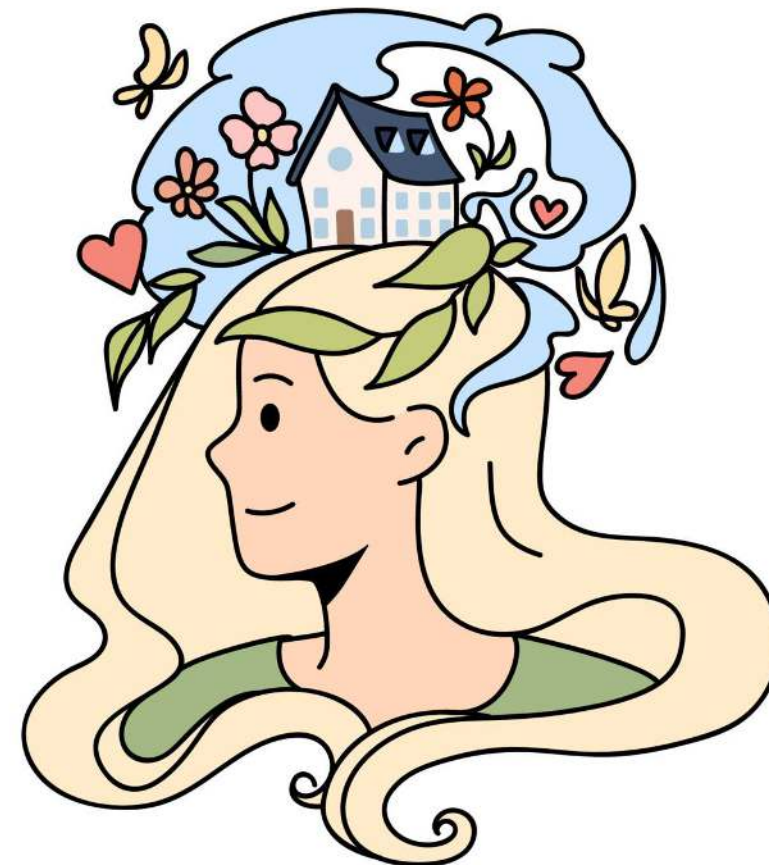
# Imagine the future if ....

Pre-event land use plans were a non-regulatory part of the district plan

Engagement arrangements with iwi, stakeholders and councils were in place before an event for efficient decision making

Categories and criteria for responsive land use planning were established to aid decision making about relocating or restricting post-event land uses

Recovery was efficient and effective for iwi, residents, councils and other stakeholders



- What adaptive futures do New Zealanders imagine?
- Where do we agree & disagree?
- And how can this inform cross-party politics?

Iain White

*University of Waikato*

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# Understanding Adaptation Futures

Adaptation requires re-imagining aspects of politics and society. We need to fund differently, build differently, or restructure our economy.

We analysed every public submission made on NZ's first draft National Adaptation Plan. From a researcher's view, these are an incredibly valuable resource. They go beyond providing individual support for set questions to **help us understand broader patterns, especially when analysed as new groupings, and where they politically align:**

1. how diverse individuals, industry, organisations and govt, frame and imagine our climate changed future.
2. how risks and opportunities are perceived and by whom, and what new political coalitions are forming.
3. Where there is agreement/divergence (even if for different reasons)
4. the current boundaries of adaptive imagination and political possibilities and what comes after NAP...




KOTUITUI: NEW ZEALAND JOURNAL OF SOCIAL SCIENCES ONLINE  
<https://doi.org/10.1080/1177083X.2024.2344497>

 **Routledge**  
Taylor & Francis Group

RESEARCH ARTICLE

 OPEN ACCESS 

## Navigating adaptive futures: analysing the scope of political possibilities for climate adaptation

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### ABSTRACT

The growing scale and intensity of climate change poses a substantial challenge to the status quo of society and politics. Adapting to the risks associated with extreme weather events and changing climatic conditions will require the re-imagination of many aspects of politics and society. Therefore, climate change can be framed as a problem of imagination; one in which our relationship to the future is central to understanding how possibilities in the present are perceived. This research analyses public submissions made on New Zealand's first draft National Adaptation Plan to understand how future climate adaptation is framed and imagined by different groups. In analysing submissions we identify and describe four thematic 'adaptive futures' that each argue for varied amounts of socio-political change from the status quo: data driven resilience; growth and opportunity; nature-society change; and flaxroots transformation. Underpinning these adaptive futures are emerging advocacy coalitions that seek to shape what is seen as possible, imaginatively, politically and materially. Our analysis also highlights how risks and opportunities are perceived by whom, and insights into attempts to delineate the boundaries of adaptive imagination and political possibility.

### ARTICLE HISTORY

Received 13 December 2023  
Accepted 10 April 2024

### KEYWORDS

Futures; imaginaries; climate politics; adaptation; climate change; transformation

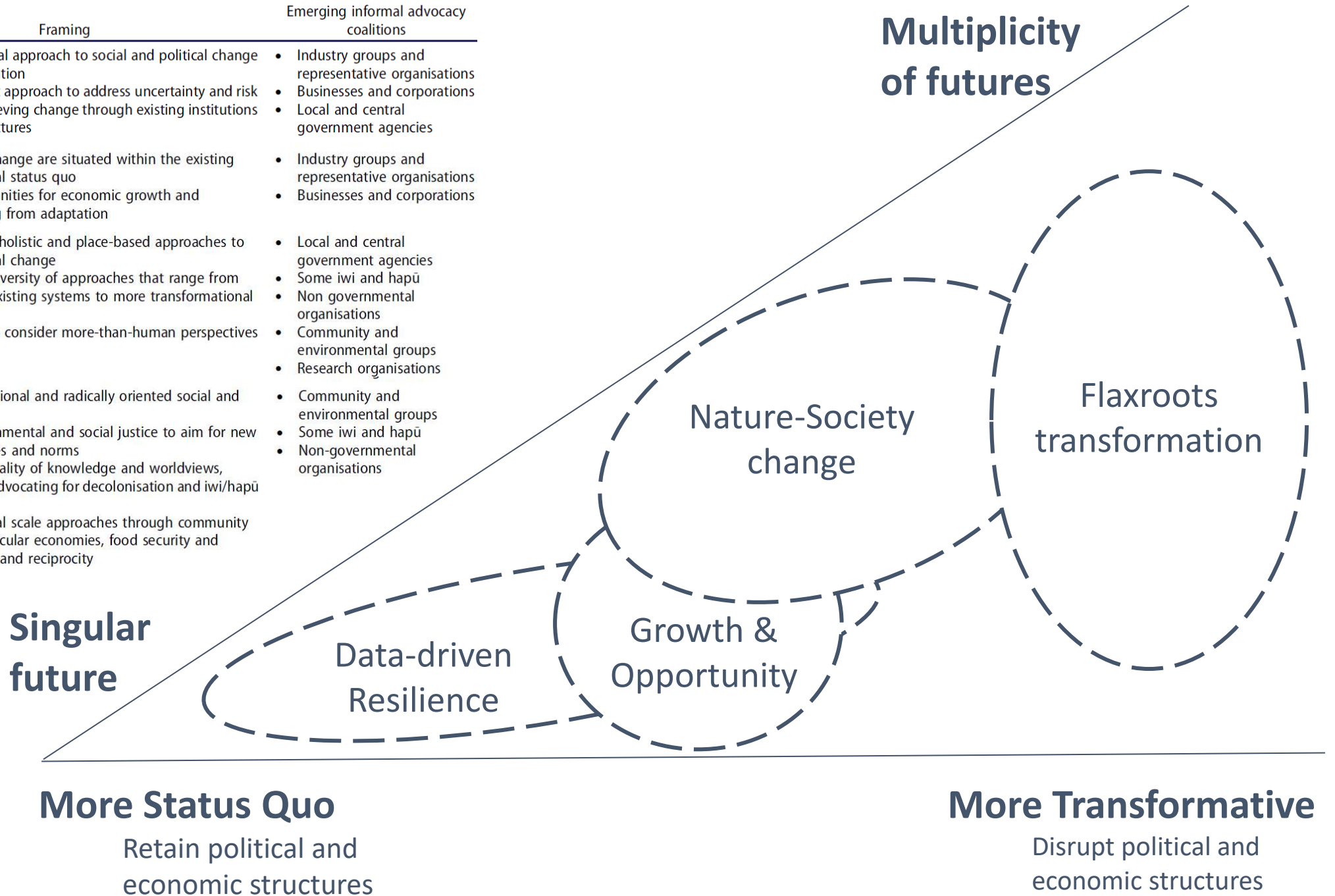
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**Table 1.** Emerging informal advocacy coalitions and framing for adaptive futures.

	Framing	Emerging informal advocacy coalitions
Data-driven resilience	<ul style="list-style-type: none"> <li>• Techno-managerial approach to social and political change to achieve adaptation</li> <li>• Knowledge deficit approach to address uncertainty and risk</li> <li>• Emphasis on achieving change through existing institutions and political structures</li> </ul>	<ul style="list-style-type: none"> <li>• Industry groups and representative organisations</li> <li>• Businesses and corporations</li> <li>• Local and central government agencies</li> </ul>
Growth and opportunity	<ul style="list-style-type: none"> <li>• Possibilities for change are situated within the existing social and political status quo</li> <li>• Focus on opportunities for economic growth and innovation arising from adaptation</li> </ul>	<ul style="list-style-type: none"> <li>• Industry groups and representative organisations</li> <li>• Businesses and corporations</li> </ul>
Nature-society change	<ul style="list-style-type: none"> <li>• More integrated, holistic and place-based approaches to social and political change</li> <li>• Encompasses a diversity of approaches that range from working within existing systems to more transformational approaches</li> <li>• Some approaches consider more-than-human perspectives</li> </ul>	<ul style="list-style-type: none"> <li>• Local and central government agencies</li> <li>• Some iwi and hapū</li> <li>• Non governmental organisations</li> <li>• Community and environmental groups</li> <li>• Research organisations</li> </ul>
Flaxroots transformation	<ul style="list-style-type: none"> <li>• More transformational and radically oriented social and political change</li> <li>• Considers environmental and social justice to aim for new institutions, values and norms</li> <li>• A focus on a plurality of knowledge and worldviews, including those advocating for decolonisation and iwi/hapū led adaptation</li> <li>• Local and regional scale approaches through community aspirations for circular economies, food security and networks of care and reciprocity</li> </ul>	<ul style="list-style-type: none"> <li>• Community and environmental groups</li> <li>• Some iwi and hapū</li> <li>• Non-governmental organisations</li> </ul>



# Understanding the politics of imagining the future

1. The first NAP provided more than an opportunity to delineate **key future risks and critical questions**, it delineated the political boundaries of **what is seen to be possible by whom and why**.
2. Rather than groups in opposition, they overlap and diverge bringing new political possibilities to develop an enduring framework. By analysing beyond individuals/questions **we see the new adaptation advocacy coalitions** that could be politically useful in establishing priorities or **how to communicate policy** benefits to diverse groups
3. It also suggests the possibilities for an **integrated, sequenced multi scalar approach** where there are urgent national investments in data, or clear policy around NBS, to empower diverse groups to act.
4. We also see a paucity of youth submissions. Perhaps technical and long consultation exercises like this exclude those most affected? **Do we need more innovative engagement** when seeking to develop a strategy with such long-term implications?

NEW ZEALAND / IN DEPTH

## Cross-party inquiry to develop 'enduring framework' for climate change adaptation

7:18 am today

Share this     

 **Kate Newton**, Senior Journalist, In Depth  
[@katnewtonnz](#)



Flooding in Auckland on 9 May 2023. Photo: Supplied

# Akuhata Bailey-Winiata

*University of Waikato*



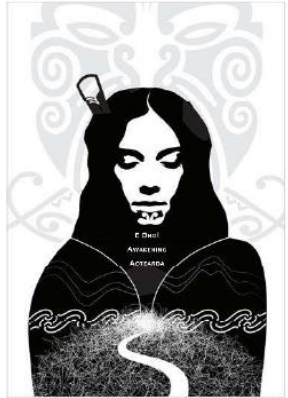
# Flip the retreat narrative: Defeat to opportunity



Bailey-Winiata et al., 2024 (Accepted)



# Opportunities realised



SUBMISSION TO THE  
ENVIRONMENT SELECT COMMITTEE  
ON THE INQUIRY INTO COMMUNITY-  
LED RETREAT AND CLIMATE  
ADAPTATION  
01 NOVEMBER 2023

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# Ngā mihi – Thank you

- ❖ All the whānau, hapū, iwi and communities that have supported and continue to support my research
- ❖ The adaptation champions in research and on the ground
- ❖ Supervisors – Shari Gallop, Iain White, Liam Wotherspoon, Tūmanako Fa’au, Mark Dickson, Joanne Ellis
- ❖ Research collaborators – Dan Hikuroa, Ryan Paulik, Lara Taylor
- ❖ Resilience to Natures Challenges Built and Coastal Programmes



Lara Taylor

*E Oho! Awakening Aotearoa*

Lara Taylor

*E Oho! Awakening Aotearoa*

**Whanake te Kura i Tawhiti Nui**

Whāinga Tuarua: Māori Resilience & Resistance  
Through Resource Management & Planning

**Te Tai Whanake is a whakatauki which refers to a wave and depicts a community who rises and moves forward together.**

The communities of interest for this research were Māori communities first & foremost, then all other communities that align with an ethos of putting Papatūānuku first.

This Research Project Offered:

- Kaupapa Māori spaces to gather (in-person & online);
- Opportunities to engage & share views, thoughts & ideas;
- Thematic analysis of the collective's view & direction re. resource management system & reforms;
- Consideration of whether our system is "fit-for-OUR-purpose";
- Insights & solutions for how the system could be improved & Tiriti-centric; and
- Multiple avenues to empower & share our voices, including but not limited to formal submission processes (i.e. find ways to go beyond submissions).

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Event

DEC  
7



A Kōrero on the Draft Resource Management Bills  
Online event  
Wednesday, December 7, 2022 at 3:00 PM NZDT

OCT  
19

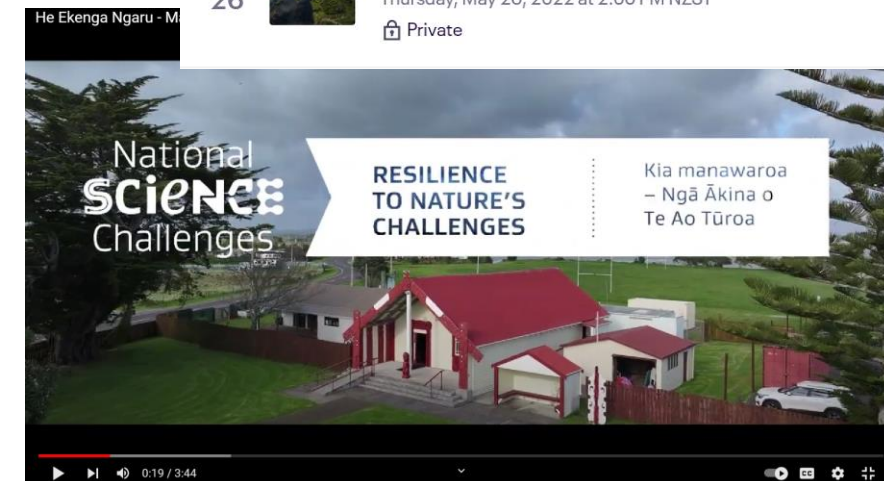


Māori Resistance and Resilience through RM Reforms  
Online event  
Wednesday, October 19, 2022 at 10:00 AM NZDT

MAY  
26



Māori Resilience to Nature's Challenges - Workshop 1  
Online event  
Thursday, May 26, 2022 at 2:00 PM NZST  
Private



## Natural and Built Environment Bill

### SUBMITTER INFORMATION

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Phone: 02102532087

This submission is non-conventional. It applies to the package of resource management reforms, not only the NEBE Bill. It includes a compilation of insights, thoughts, experiences, and recommendations – though there are many others that I wish I'd had time to emphasise as well. Please review and analyse these whakaaro from a Māori policy making and planning perspective, which is a critical component of our Tiriti-based 'resource management' system. It includes key issues and recommendations drawn from the collective views provided by myself and others during a series of online research wānanga that considered Māori resilience and resistance through these reforms and future reformed system.

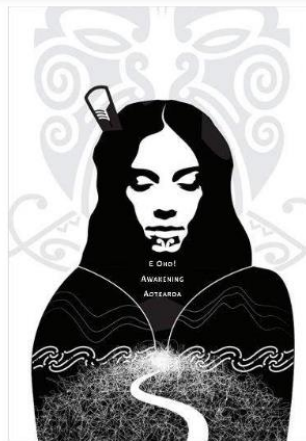
Due to the short timeframe, over the busiest period of the year for whanau (Christmas and the new year), I am unable to make an articulate submission that covers all of the issues and recommendations I would like to make. However, I also formally support the Papa Pounamu submission, and in principle the majority of (though not the entirety of) both the Iwi Leaders Group – Freshwater Technical submission, and the Environmental Defence Society submission.

I request to make an oral submission to the committee please.

*Acknowledgements: Ngā mihi to all the participants, presenters, and facilitators involved in the online wānanga series "Māori Resistance and Resilience (?) through the Resource Management Reforms" to date. In particular those who have given permission to share their whakaaro through this submission. Thank you to the Ministry of Business, Innovation and Employment for funding this research, and Manaaki Whenua Landcare Research for their support through the Poipoiā kia rere: Māori Internship programme.*

*Disclaimer: The information in this submission cannot be considered a representation of any individual or iwi, hapū, whānau, or other Māori group or entity.*

For more information on this research visit:  
<https://resiliencechallenge.nz/programme/whanake-tekura-i-tawhiti-nui/>  
or email: [lara@eoho.co.nz](mailto:lara@eoho.co.nz)



## SUBMISSION TO THE ENVIRONMENT SELECT COMMITTEE ON THE INQUIRY INTO COMMUNITY- LED RETREAT AND CLIMATE ADAPTATION 01 NOVEMBER 2023

### SUBMITTER INFORMATION

Name: E Oho! Awakening Aotearoa (submitted on behalf of multiple voices from across the motu)

Key Authors: Lara Taylor (Ngāti Tahu, Tuhourangi, Ngāti Pāhauwera, Ngāti Tahu ki Murihiku), Siani Walker (Te Atihau-nui-a-Paparangi, Ngāti Tupoho, Ngāti Tamakopiri, Ngāti Rangī, Te Aupouri, Ngā Puhī Ngāti Kahu ki Whaingaroa), Akuhata Bailey-Winiata (Tuhourangi, Ngāti Whakapuā, Ngāti Tūpapakā), Shari Collins (Ngāti Māori, Te Pūwhiri)

**Key Contributors:** Manu Caddie (Ngāti Pūkenga, Ngaati Hauaa), Te Weu Charitable Trust; Natasha Kola (Ngāti Porou), Totaranui Nama Ono Trust; Cindy Hemsall – Matai Kaitiaki Environs Te Uri o Hau (Te Uri o Hau/Ngāti Awa); Fiona Kemp – Taiāo Manager Environs Te Uri o Hau (Ngāti Awa/Ngāti Kea Ngāti Tuara); Environs Holdings Ltd, environmental subsidy to Te Uri o Hau Settlement Trust; Lucy Tukua (Ngāti Paoa, Ngāti Whanaunga); Teresa Kora (Ngāti Tahu), Acting Chair of Tahorakuri A130 Trust; Roana Bennett (Ngāti Whakaue); James O'Callaghan (Ngāti Whakaue, Tapuika, Waitaha); Elva Conroy (Ngāti Whakaue, Tapuika, Tuhourangi); Lucy Kaiser (Kāi Tahu, Kāti Māmoe, Waitaha); Lisa Warbrick (Ngāti Awa, Ngāti Rangitīhi, Te Atihau-nui-a-Pāpārangi); Te Pū Oranga Whenua;; Lara Clarke, Planner; Micah Butt (Ngāti Whakaue and Ngāti Korokoro/Ngāpuhi); Milly Grant-Mackie (Te Rarawa, Ngāti Kuri, Ngāpuhi); Melanie Mayall-Nahi (Ngāti Whātua o Kaipara, Te Rarawa), Ahlia-Mei Ta'ala (Te Āti Hau-nui-ā-Pāpārangi); Indira Venkatraman, (PhD Student, Civil Systems Engineering Group, University of Canterbury); Desna Whaanga-Schollum (Ngāti Rongomaiwahine, Ngāti Kahungunu, Ngāti Pāhauwera, Ngāti Tahu ki Taipōrutu, Te Aitanga-a-Waanga); Lani Kereopa (Ngāti Whakaue, Ngāti Tahu); Ashlee Aspinall (Ngaati Mahuta ki Tai, Te Whaanau a Ruataupare); Te Ruunanga o Ngaati Mahuta ki te Hauaauru Charitable Trust KiriOra Taipari (Ngāi Tamawharua); Hone Winder-Murray (Ngāi Tamawharua); Anne Billing (researcher); Oriwa Tamahou (Tūhoe, Waikato-Tainui), Kairangahau AgResearch.

### Key Supporting Organisations:

1. The Resilience to Nature's Challenges National Science Challenge (letter of endorsement attached)
2. Human Rights Commission (which has supported this submission in its own)
3. Papa Pounamu and The New Zealand Planning Institute (which has supported this submission in its own)

We wish to make an oral submission in support of this written submission.

We also offer a supplementary video submission: [He Ekenga Ngaru - Māori community solutions to climate retreat and adaptation](#)

An expression of Kaitiakitanga



An embodiment of kaitiakitanga in multiple, diverse ways

An expression of Kaitiakitanga: an embodiment of kaitiakitanga in multiple, diverse ways.

Introduction

Kaitiakitanga requires rangatiratanga (authority), mātauranga, and tikanga to be given effect (iwi/hapū/whanau/Māori). It is not something, or 'thing', that can be legislated for and then learn applied by any practitioner. If a system were written designed in a way truly fit for purpose for empowering and enabling Kaitiakitanga, also westernised resource management, it would simplify effect to the authority, knowledge, and practices of Whenua alongside regional and local councils. In response ngā taonga tuku iho. Te Ao Māori has synergies compatible with ecosystem-based management. Holistic, integrated, and people and place-specific.

INSTAGRAM POSTS SHOWING CUMULATIVE IMPACTS OF MULTIPLE SYSTEM FAILURES TO PROTECT Papatūānuku

TOKOMARU BAY – SALTWATER WHANAU (NGĀTI POROU)

RESISTANCE AND RESILIENCE (?) THROUGH THE REFORMS

POEM BY LARA TAYLOR (NGĀTI TAHU, NGĀTI TŪWHARETOA, NGĀTI PĀHAUWERA, KAI TAHU KI MURIHIKU), PLANNER, PRACTITIONER, RESEARCHER, AND STRATEGIST.

"It's time to reform the system". The same system, again? Another opportunity to let the Crown hold the pen? Tino rangatiratanga reformed into, Kāwanatanga. Attempts to take our sovereignty. Tohunga suppression. Attempts to take our culture. Reo Māori banned in schools. Attempts to smack our language out of us.

Much mis-taken. More than simply lost in translation. Strategic policy making. Our words re-formed. A rewrite of history. Through an illegitimate authority, Assumed since 1840.

Poisoning our whakapapa, Sickening our hearts, She/her/me/us.

But the Crown's officials failed. Then and now. The people and culture resist, The people and culture persist. Resilient through time and space. Tāngata whenua cannot mis-remember, our intersections with place.

The times of re-forming a broken system, Have gone on far too long. It's time to transform back. To the plural independence and interdependence forgone. "Kotahi te ture mo ngā iwi e rua" the lament of a prophet over a century before, Two peoples one law, With equal rights and places in the sun? With shared rights and responsibilities. Not the whims of one.

A "once-in-a-generation opportunity to establish a resource management system that is fit for purpose" the Minister said. "Try once-in-two-centuries instead".

Will this one be fit for OUR purpose? Rangatiratanga in and across all spheres.

Ko te rongō te arawhata ki te ora.

Embodiment is the stairway to well-being.

WHAKATAUĀKĪ INSPIRED BY AND DEVELOPED DURING THE MĀORI RESISTANCE AND RESILIENCE THROUGH RESOURCE MANAGEMENT REFORMS RANGAHAU WĀNANGA, HELD ONLINE, OCT 19 2022.

KA WHAWHAI TONU MĀTOU

A CONCERNED FACEBOOK POST BY LANI KEREOPA

swallow the bitter pill that this is where our whānau & hapū still find ourselves 143 years after gifting the lands for the city of Rotorua & extending the welcoming hand of friendship & partnership to tauwi. The birthplace of Rotorua; the epicentre of Ngāti Whakaue is yet another of our precious ngāwhā, wetlands & iwi lakefront communities polluted with untreated human

E kore whakaae ture kawanatanga

Haka composed by Dr Wiki Walker-Hockey

Click on this link to hear "E kore whakaae ture kawanatanga"

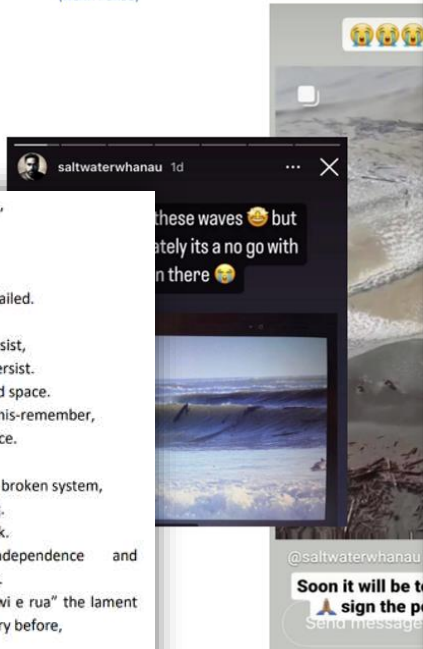
Or copy and paste this link into your browser: https://drive.google.com/file/d/1DxaZa8Hz4m0NcsfMDs5dxLCrpoU6HJHh/view?usp=share\_link

E nga reo o nga hau e wha Kia mau, he ha! Te reo o te wahine e haruru nei I a ha ha Nga uri o Papatūānuku e Takahia te ture mahi kino te whenua Mahi kino te whare tangata e Takahia te mana o te Ao Turoa e

The voices of the four winds Be ready! He ha! The voice of women rumbling I a ha ha The descentance of the earth mother Trample this law that abuses the earth Abuses the house of humanity Tramples the power/status of the natural world Tramples the power/status of the gods Never, never, never will we agree Law that separates what is right / customs Law that breaks protocol Law the tramples knowledge From you the government What is the voice of the community Where is the voice of the house of humanity Where is it, where is it This is the house of humanity who stand up For the power of the natural world Never, never will we agree With you the government

Takahia te mana o nga atua e E kore,e kore, e kore whakaae Ture wehewehe tikanga Ture whati kaupapa e Ture takahi matauranga E koe te kawanatanga e Kei hea te reo o te kainga e Kei hea te reo whare tangata e Kei hea ra aue kei hea ra Ko te whare tangata e tu atu nei e He mana Motuhake o te Ao Turoa e E kore,e kore,e kore whakaae Te kawanatanga e Aue hi, aue ha.

HAKA - AUDIO



OUTPUT

## E Oho! Awakening Te Ao te Aroā Mobilising for Action at Ohaki Pā

"Te Ao Te Aroā" is a contemporary play with terms and concepts simply to encourage thought and conversation. Many are familiar with Te Ao Māori and Te Ao Mārama (the world of light in which we all exist). Another term increasingly used is Te Ao Hurihuri (the

[Read More](#)

"Te Ao Te Aroā" is a contemporary play with terms and concepts simply to encourage thought and conversation. Many are familiar with Te Ao Māori and Te Ao Mārama (the world of light in which we all exist). Another term increasingly used is Te Ao Hurihuri (the everchanging world). This newly coined term Te Ao Te Aroā (or the world according to Aotearoa New Zealand) is imagining the world awakened; a 'woke' Aotearoa. The world we are realising together with urgency for holistic and collective ethics of care that equitably empower and enable Tāngata Whenua and Tāngata Tiriti to use and manage our 'resources' (environmental taonga) sensibly, not according to ego-based systems or even eco-based systems. Rather, an Aotearoa with an established ngā-taonga-tuku-iho based system founded on Tiriti-centric, equitable, holistic, and localised ways to overcome the socio-ecological and economic crises we are currently faced with. Indicative of a maturing society, that is changing the trajectory from crisis and collapse to regeneration and hope. Ka ora te wai, ka ora te whenua, ka ora te tāngata, ka ora te Aotearoa.

"Space is important. It's part of our creation story, the space created by the separation of Rangī and Papa and the karakia by Tāne that meant that Te Ao Mārama would be a safe space for us."

# Wānanga: Connecting us to Te Ao Te Aroā

*Ka te rongō te arawhata ki te ora  
Embodiment is the stairway to well-being*

### Lara Taylor (Ngāti Tahu, Te Arawa) E Oho! Awakening Aotearoa

Aotearoa needs both Te Ao Māori and other worldviews to build resilience to nature's challenges. To benefit from Te Ao Māori, Aotearoa must actively negotiate, create, and hold space for Māori leadership (rangatiratanga), knowledge (mātauranga), and practices and processes (tikanga and kawa).

Hapū and whānau scale resilience, what that means to us, and how we respond, requires fit-for-purpose research methodologies. Purpose-led wānanga provide appropriate cultural and institutional infrastructure capable of supporting important and often challenging conversations and deliberations.



Wānanga is a mātauranga and tikanga-based methodology that brings together a collective of like-minded people, to share and learn from each other's knowledge, experiences and skills. They are culturally safe, agile, and versatile spaces for critical analysis and strategic problem-solving.

Through wānanga, often 'unheard' voices of whānau, hapū, and iwi, can be heard, captured, and empowered. Through these forums, our voices can become the basis for the rangahau - the action-based research formulating our strategic direction forward.

### Feedback from participants of E Oho! Awakening Aotearoa – Mobilising for Action noho wānanga, Ohaki Pā, May 2023

"It is so important for us as Māori to claim space where we can and to have those difficult conversations in a respectful way. The kōrero in the wharenui after the pōwhiri was a great example of being honest about difficult topics without being confrontational - the emotions were communicated respectfully and clearly, I was so impressed."

"This is how we as Māori are supposed to come together – about everything. It is noho marae wānanga that always stretches way beyond the actual whakaaro and adds those extra dimensions."

"I was grateful for the space created for Māori at the geothermal walk and caused me to reflect on the importance of deliberately creating these spaces for Māori."

"We reached for the stars and solved all our problems, while we were in the wharenui. Now back to the other world of mahi where it is easy to keep buzzing on noho marae energy for awhile and reminding us, this is how we roll."



### Māori Resilience and resistance through the RMA reforms

*"Will this result in a planning system that is fit for OUR purpose?"*

As a rōpū of Māori planners, researchers and environmental practitioners, we are progressing Māori resistance and resilience through the current reforms of the resource management framework. We're working to bring about a Te Tiriti-centric planning framework that works for te taiao and communities.

RESILIENCE TO NATURE'S CHALLENGES



40174262000  
- Pūa Aotearoa  
Te Ao Tūroa

National Science Challenges

Papa Program  
Māori & Pacific Peoples' Sovereignty Group of the New Zealand Planning Institute

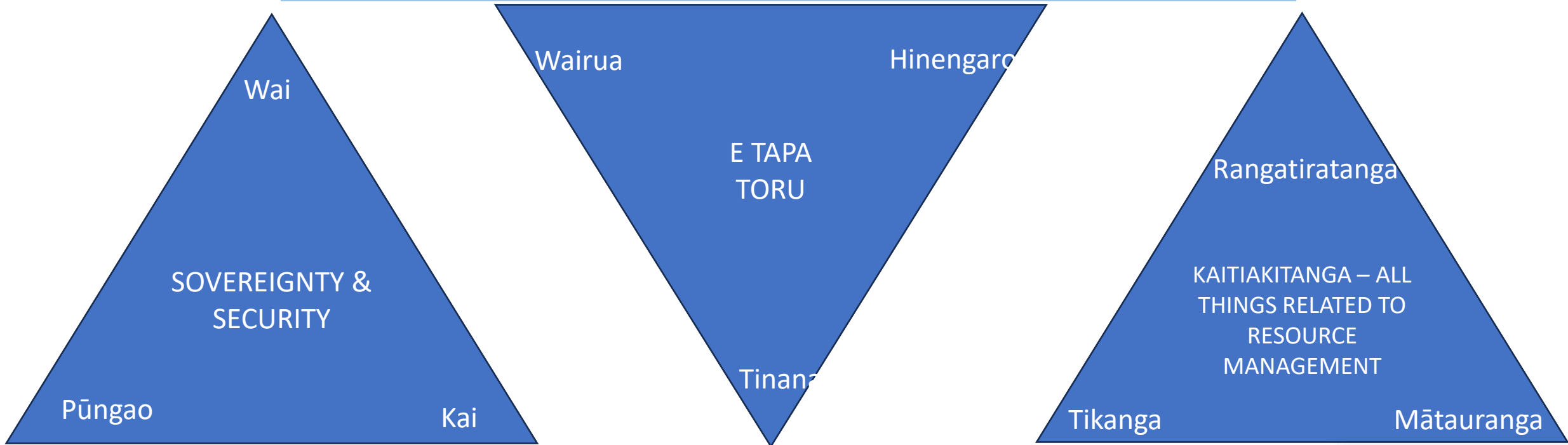




This research is part of the Whareka to Rūnā i Tawhiti Nui research programme



# Key Message: E Toru Ngā Mea



*The kererū that lost a few feathers, is not as ruffled as you think.*

*The curious Kairangahau will keep asking questions until she has worthy answers.*

*The Kahukura does not need to see the whole flight path to boldly lead its flock.*



# Collaboration

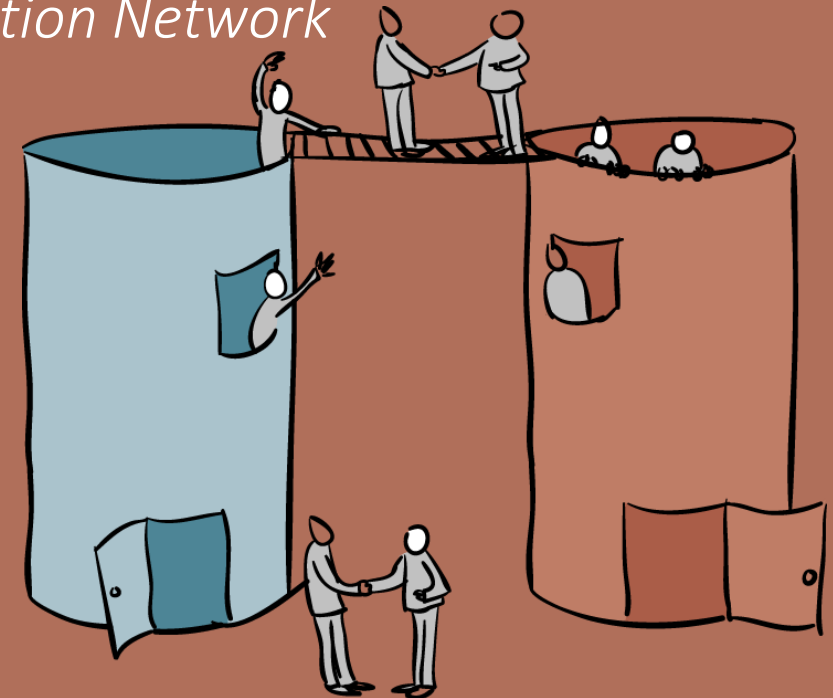
The establishment of **ACAN** and the emergence of **ASAP**

Tom FitzGerald

*Co-convenor of the Aotearoa Climate Adaptation Network*

*Ehara taku toa i te toa takitahi, engari he toa takatini*

My strength is not as an individual, but as part of the collective



2021



2023

# Aotearoa Climate Adaptation Network

A network for local government climate adaptation practitioners

“ACAN”

RESILIENCE TO NATURE'S CHALLENGES

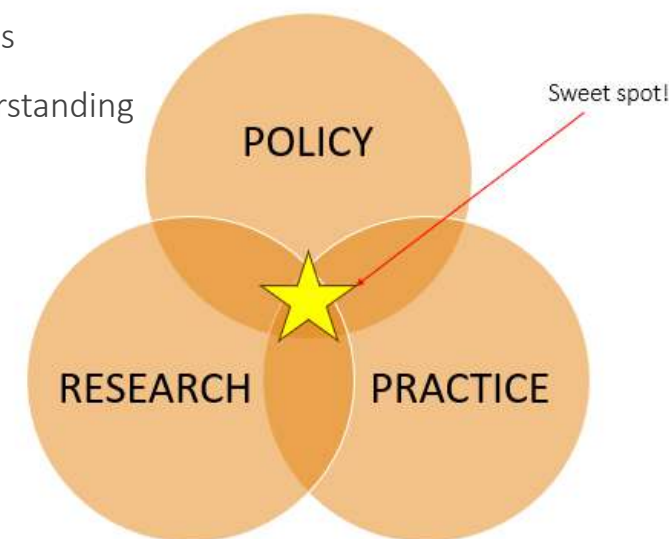


# Why collaborate?

- Urgent need
- Commonalities
- Adaptation crosses many disciplines – requires a new way of working
- Wicked problem requires gnarly solutions
- There is much to learn!
- Everyone has something valuable to contribute
- Working toward the same goal
- Improving/influencing the rules of the game
- Efficiency
- Value for money
- Improve professional practice
- NZ is small...

# Key Actions:

- Take the time and create space to look outside
- Give time
- Be open, show humility
- Sharing + caring – adaptation can be hard
- Keep in mind the greater good
- Practice and implementation oriented
- Involve others – partnerships
- Embrace the fail, celebrate the wins
- Encourage diverse thinking + understanding
- Reach out



Watch this space....

# Aotearoa Society of Adaptation Professionals

# ASAP

Get in touch if you want to help out – [nzclimateadaptationnetwork@gmail.com](mailto:nzclimateadaptationnetwork@gmail.com)

RESILIENCE  
TO NATURE'S  
CHALLENGES

Kia manawaroa  
– Ngā Ākina o  
Te Ao Tūroa

National  
**SCIENCE**  
Challenges

# The role of adaptation in building enduring 'natural' hazard resilience



Judy Lawrence

Co-leader RNC Enabling Coastal Adaptation

*Te Herenga Waka, Victoria University of Wellington*

*PSConsulting Ltd*

# What does resilience mean in a changing climate?



## Question we must ask

- In a rapidly changing climate what does resilience really mean, and can it endure?
- What role can adaptation play?
- What is missing?

## Changing climate makes a difference to the hazardscape

- Not all hazards are natural and not all climate change impacts are hazards
- Adaptation options have limits and residual risk remains
- Not all hazards propagate the same
  - Some occur as events – earthquakes, volcanic eruptions, extreme rainfall
  - Some progress to thresholds – sea-level rise, heat, drought
  - Some are ongoing for centuries even if GHG emissions are reduced – SLR
- The risks are changing = the hazard, the exposure, the vulnerability
- We need different approaches for different types of hazard

# Adaptation in the coastal environment



Measuring change at the coast requires a baseline of erosion and accretion.

Pillar 1 RNC Coastal Environment

Modelling coastal and human processes includes open coasts and the estuarine interface

Pillar 2 RNC Coastal Environment

Who and what is at risk requires understanding social vulnerability, and methods and tools for decision makers that fit dynamic change and uncertainty

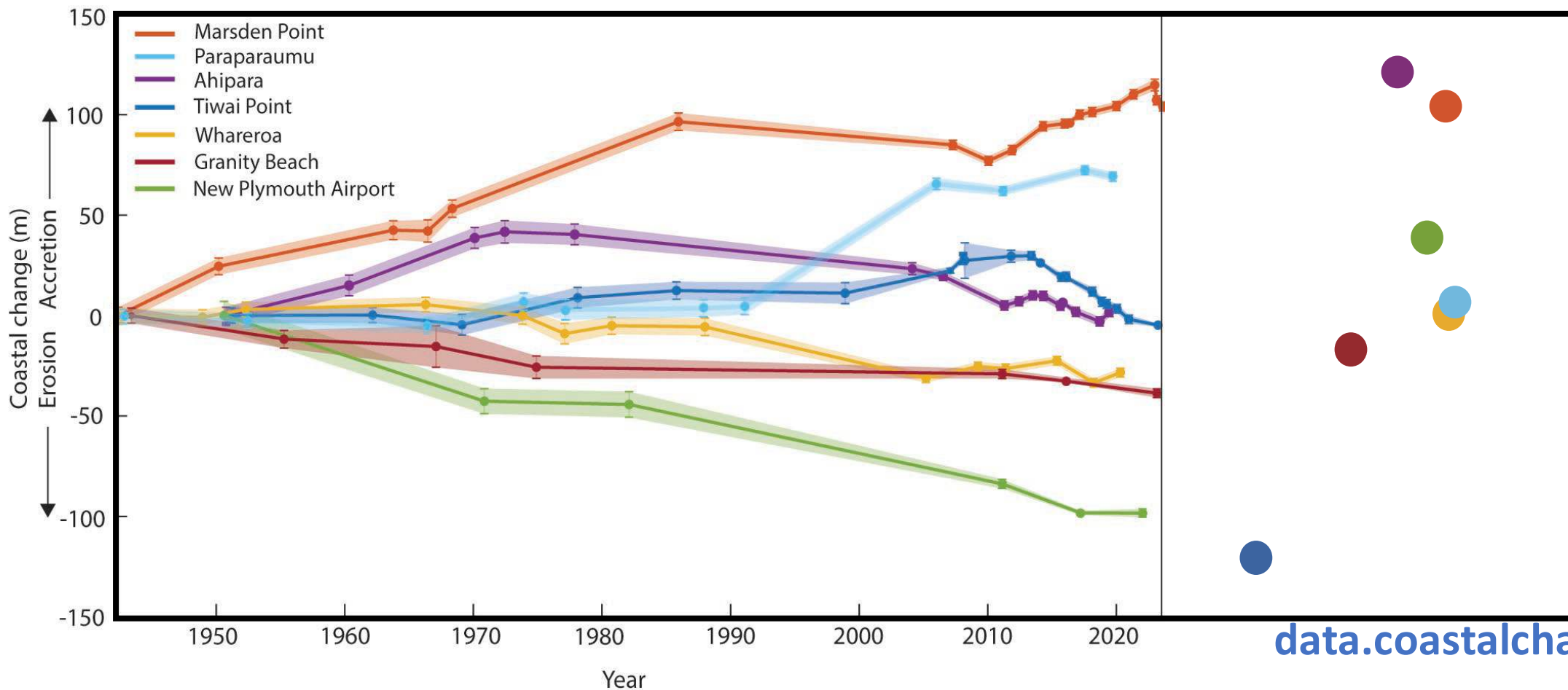
Pillar 3 RNC Coastal Environment





# National coastal erosion and accretion dataset mapped at local scale

## Baseline for projecting future trends & untangling complex coastal-change drivers



[data.coastalchange.nz](https://data.coastalchange.nz)

Mark Dickson, Murray Ford, Emma Ryan, Megan Tuck, and many others

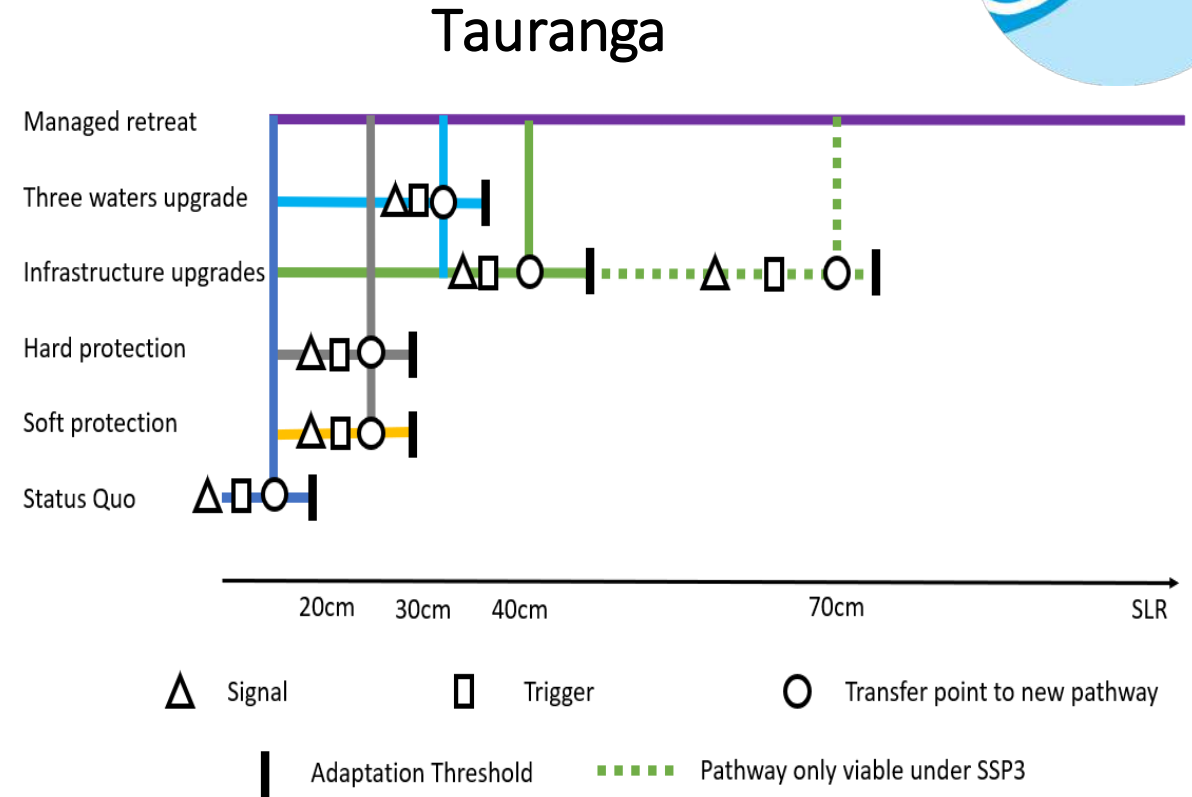


# Multi-hazard simulation of decision trigger points



## Adaptation limits

- soft and hard protection around **25cm RSLR (2050 – 2070)**
- Three waters upgrades around **35cm SLR (2075 – 2100)**
- Infrastructure upgrades and policies between **40cm and 70cm SLR (2095 – 2150)**
- After which **managed retreat** only remaining pathway



Heuristic agent-based model with DAPP & RDM

Andrew Allison, Scott Stephens, Judy Lawrence, Paula Blackett, Mark Dickson, and Yvonne Matthews

# Enabling coastal adaptation



## Vulnerability & risk assessment

### Social vulnerability indicators

- **Who** is most at risk?
- Accounting for **diverse** and **changing** experiences in our decision making?
- Creating **personas** to explore diversity

National scale coastal erosion risk assessment (Taranaki case study)



## Implementation enablers

- Anticipatory and dynamic adaptation through the **RMA**
- ‘Fit for purpose’ probability-neutral **economic costing tools**
- **Serious Games** to prime decision makers
- **Monitoring systems** for adaptive plans
- Adaptive planning for **managed retreat**
- Adaptation **funding models**
- **Lessons** learned from **DAPP** applications





# Adaptation is dependent on the political-economy

- The fast we reduce emissions determines how effective adaptation can be and the options available for adaptation - a political decision
- Framing the problem is key - we can help decision makers with that
- Inclusion is essential for enduring adaptation decisions.

We frame hazards as 'natural' and think 'resilience' is the answer, but is it a reframing of BAU? Our ability to live with hazards and climate change means living with uncertainty and changing risk.

Can 'resilience' endure? Only with dynamic and adaptive capacity and an aligned political economy.