## Contact:

## Betsan Martin, PhD LogoFinalJPG

Director, Response Trust

Research Associate, School of Geography, Environment and Earth Sciences

Victoria University of Wellington

[betsan@response.org.nz](mailto:betsan@response.org.nz)

+64 21 388 337

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## Climate Change Consultation Submission

E ngā rangatira, tēnā koutou

This submission draws on the research *Towards a Rangatiratanga Framework for the Governance of Waterways,*[[1]](#footnote-1) addressing the interface of water and climate change.[[2]](#footnote-2)

This material includes reference to the new suite of legislation in preparation: the Natural and Built Environment, Spatial Planning and the Climate Change Adaptation Acts. This is being developed from the recommendations of *New Directions for Resource Management* (Randerson Review 2020)[[3]](#footnote-3)

The research elaborates a proposal for a Waterways Commission as recommended by the Waitangi Tribunal.[[4]](#footnote-4)  Such a Commission would need to have an integrative role with Climate Change esponse (Zero Carbon) Act and the Climate Change Adaptation Act. The new legislation will introduce a new planning framework with likely provisions for ‘giving effect to [the Principles of] Te Tiriti o Waitangi’ and Te Mana o Te Tai Ao, as including protection of air, land, soil and water.

The *New Directions* review proposes remedies for alignment with Climate Change Response (Zero Carbon) Amendment Act 2019. Considering the connection of climate change on the hydrolic cycle in respect of droughts and floods, there needs to be policy that takes account of uncertainty in planning and with robust systems for evaluating emissions across supply chains and whole life cycle of projects.

Clearly a Waterways Commission is domain specific with the need for remedial attention to the governance of waterways, whereas broadening the scope to a Te Mana o Te Tai Ao Commission is more systemic in scope. In either case, climate change needs to be fully integrated as a cross-cutting matter for integration into all resource governance and policy.

***Climate Change and Water***

In the knowledge that when we take care of land and water they will take care of us, this research seeks provision for systems that rehabilitate people with land and waterways. At the same time it is positioned for the pragmatics of law and policy and takes account of wider issues including planning systems and climate change.

Climate change and the dramatic intervention of the pandemic both urge for a radical shift from the current resource management frameworks with cost-benefit analysis, demand and supply economics, externalities which discount pollution and human as well as environmental impacts of development, and sovereign rights over private property.

The complexity of interconnected ecosystems and indirect local effects of anthropogenic warming call for new thinking and policy that recognize interdependence between humans and nature, including at the global scale. Cross currents of change show the tensions of mismatched systems, policy out of step with the situation at hand, and the inadequacy of anthropocentric world views.

Presently tensions arise from the interaction between regulation for public good which can seem to encroach on private property rights. New regulation over agricultural land such as stream fencing on farms in order to meet the requirements for the health of water, and new planning to address the housing crisis are two examples of the regulatory interface of private property and common good resources.[[5]](#footnote-5) The divide cannot be absolute because the degradation of common goods is often the result of regulation that allows for private property rights that result in degraded waterways, such as through the overallocation of water.

## **Climate Change: IPCC**

Climate change is shifting the patterns of rainfall and bringing new conditions of floods, droughts and temperatures. The IPCC is assessing the human influences on the water cycle with attention to feedbacks from land processes at small scales and the global scale of the water cycle. Changes in land use and in irrigation have direct effects more indirect biophysical effects of seasonal changes in liquid water, ice and snow, and in cyclones, droughts and floods or wet extremes. The forthcoming Assessment Report on climate change and water, AR6 will build on the 2008 Climate Change and Water paper[[6]](#footnote-6) which documents changes in ice, the cryosphere, and projections for intensified flooding and drought globally and regionally, as well as the Special Report on *Climate Change and Land*.[[7]](#footnote-7)

*Climate Change and Land* identifies the interactions between desertification, land degradation, sustainable management, food security and greenhouses gas influences on terrestrial ecosystems. The scale of impacts will vary regionally in accordance with changes in the water cycle – this in turn is influenced by vegetation cover, urbanization, and land degradation from the certainty of intensified rainfall including heavy rainfall events.

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Land is both a source and a sink of GHGs and plays a key role in the exchange of energy, water and aerosols between the land surface and atmosphere. Land ecosystems and biodiversity are vulnerable to ongoing climate change, and weather and climate extremes, to different extents.

The IPCC analysis refers to diminished food security due to warming, changing rain patterns, and frequency of extreme weather events. There are both positive and negative effects on crop yields depending on latitudes. These in turn effect animal based productivity and infestations of agricultural pests and diseases. An assessment of emissions and sinks from agriculture, forestry and other land use including the global system of food production (transport, fertalisers etc) are estimated to be 21-37% between 2007 and 2016.[[8]](#footnote-8)

***IPCC Analysis for Aotearoa***

We can readily see the implications of the global patterns of climate change identified in the IPCC reports for regional contexts and to interpret these for Aotearoa. *New Directions* 2020 gives specific proposals to bring climate change management into the framework of the new legislation. The emphasis on management of the built environment and planning for managed retreat is fitting for the legislation envisaged in the Review and offers the next step to the Climate Change Response (Zero Carbon) Act.

Provisions for central and local government to have the powers to modify or terminate existing consented activities is essential to an adaptive system that can respond to uncertainty and change. These have the added benefit of introducing mechanisms needed for transitions in consenting to retire consents that are environmentally detrimental and bring in a new criteria based allocation system. Modification of consents requires national oversight along with regional council and territorial authority capacity to review and adjust consents for land uses in accordance with catchment context and sustainability.[[9]](#footnote-9)

*New Directions* 2020 does not elaborate on consents and for land management food security and the close association of these with anticipated changes in freshwater supply and the threat of crop failures. The scope of challenges to rehabilitate waterways, introduce equitable access to water and provide for unprecedented effects on water systems from climate change in Aotearoa are mirrored world-wide.

The OECD Study on Water[[10]](#footnote-10) recognises that it is impossible to make new policy settings in one step, often because of politics and contested interests. There is tension between an evolving iterative process with stakeholder engagement and the known remedies and risks that should be attended to in statute and policy. Allocation is particularly challenging and must include an account of climate change impacts on waterways in policy and governance

***New Proposals for Governance and Resource Management***

At present the RMA does not provide sufficient requirements to consider climate change in decision-making for infrastructure, procurement and resource consents. There has been a recent amendment to remove the s 104E prohibition on consent authorities from having regard to effects on climate change when considering applications for discharge and coastal permits and ss 70A and B which restrict the ability of regional councils to make rules and regulations relating to controls on discharges of greenhouse gases.[[11]](#footnote-11)

Renewable energy does not necessarily have renewal built into its systems of production – as can be seen with the Tiwai Aluminium Smelter – where, despite production with renewable hydro-energy, toxic waste and emissions impact on the Waiau River. These and other matters relating to the regional economy, all need to be integrated into waterways and climate change impact assessments.[[12]](#footnote-12)  The proposed Waterways Commission would include integration with climate change in its mandate.

***An institutional framework for Waterways integrated with Climate Change***

A Commission with Te Mana o Te Wai/Te Taiao Catchment Boards, provide for the authority of mana whenua alongside the Crown, inaugurating a good faith process for decisions on a revised allocation system.

At the point of designing a replacement system of use and allocation, this should not rely on the market. A criteria based system shows the possibilities for addressing climate change through the allocation of water resources.

Whether tendering, or partial use of the market or another form of access is used it should be based on criteria with principles of responsibility, rangatiratanga, mauri, environmental flows, regenerative use, context and aspirations (rather than limits) for decision-making.

Criteria may include:

* Allocation for iwi/hapū and Māori landowners
* Rehabilitative land use, eg. regenerative agriculture, and incentives to reduce water use
* Land use that reduces intensified dairy
* Allocation and policy for land use that supports the health of waterways, such as forestry management to reduce or eliminate sediment.
* Water and land use that reduces GHG emissions
* Elimination of detrimental externalities – eg toxic discharges, sediment biodiversity loss
* Incentives for biodiversity enhancement

***The Natural & Built Environment Act: Climate Change Implications of Te Mana o Te Tai Ao***

The forthcoming Natural and Build Environment Act is expected to have Te Mana o Te Tai Ao in its purpose statement. According to the Ministry for Environment Te Mana o Te Tai Ao refers to protection of air, water, soil, land; it is intended to bring forward a much more integrated approach to environmental governance and resource management - as recommended by the Randerson Review, *New Directions for Resource Managemen*t 2020.

Some concerns about this interpretation include that land, soil, air and water are seen as objects of protection, whereas what is needed is recognition of the interdependence of all life forms and of humans with nature. Mātauruanga Māori experts bring a view that gives much more recognition of inter-relationships and that Te Mana o te Taiao refers to people and communities protecting and enhancing the entire interdependent system that supports life in its diversity and richness.

When we draw on an approach of responsibility for the future, and on the customary traditions of obligation of tikanga Māori, and social-ecological systems thinking, the orientation towards natural resources of Te Tai Ao changes from one of rights to use and property entitlements, to an approach of relationship and accountability.

Within the concept of ‘Te Mana o Te Tai Ao’, ‘Te Tai Ao’ includes not just the biophysical values of the environment, but the various social, economic and cultural values that are equally critical in determining the systemic wellbeing of the environment. The purpose of upholding Te Mana o te Taiao therefore requires that wellbeing include limits to use and discharges, with outcomes that are identified across the spectrum of Te Tai Ao values.

***Conclusion – Solidarity for Climate Change and the Interface with Water***

This submission draws on the view that climate change inaugurates a new era of solidarity between human communities. Solidarity brings with it collective responsibility for transitions to low emissions societies, which runs across the spectrum from governance to community and individual action.

Solidarity is an invitation to draw on plurality of knowledge traditions as a source of innovation; in Aotearoa we have the integrated knowledge systems of mātauranga Maori and ecosystem sciences to rehabilitate ourselves to the view that all things are connected. Remedies to climate change include working with tikanga and kaitiakitanga, ecosystem and human health and allowing development within renewable capacity of Te Tai Ao.

Institutions for governance at national and catchment levels, with subsidiarity are needed for the complex systems of climate change.

We recommend that the Climate Change Commission takes into account the climate change-water interface. This includes adaptive systems, the implications for land use food production and food security, and long term decision-making in Te Tiriti o Waitangi framework.

Thank you for the opportunity of making this submission. Please contact Betsan Martin for any further matters concerning this submission.

Hei konā i roto i ngā mihi,



Betsan Martin on behalf of the research team for *Towards a Rangatiratanga Framework for the Governance of Waterways.*

1. Linda Te Aho, Betsan Marin, New Zealand Māori Council (2021) *Towards a Rangatiratanga Framework for the Governance of Waterways*’. Forthcoming [↑](#footnote-ref-1)
2. The research was funded by the NZ Law Foundation. [↑](#footnote-ref-2)
3. Resource Management Review Panel *New directions for resource management in New Zealand* (Ministry for the Environment) 2020. [↑](#footnote-ref-3)
4. Waitangi Tribunal *The Stage 2 Report on the National Freshwater and Geothermal Resources claim* (Wai 2358, 2019). [↑](#footnote-ref-4)
5. Parliamentary Commissioner for the Environment (2020) ‘RMA Reform: coming the full circle’. RMLA Salmon Lecture 2020. Association for Resource Management Practitioners, Auckland. At.3 [↑](#footnote-ref-5)
6. Bates, B.C., Z.W. Kundzewicz, S. Wu and J.P. Palutikof, Eds., 2008: Climate Change and Water. Technical Paper of the Intergovernmental Panel on Climate Change, IPCC Secretariat, Geneva, 210 pp. [↑](#footnote-ref-6)
7. IPCC 2019. *Climate Change and Land*. Summary for Policy Makers,

   Full citation: IPCC, 2019: Summary for Policymakers. In: Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems [P.R. Shukla, J. Skea, E. Calvo Buendia, V. Masson-Delmotte, H.- O. Pörtner, D. C. Roberts, P. Zhai, R. Slade, S. Connors, R. van Diemen, M. Ferrat, E. Haughey, S. Luz, S. Neogi, M. Pathak, J. Petzold, J. Portugal Pereira, P. Vyas, E. Huntley, K. Kissick, M. Belkacemi, J. Malley, (eds.)].

   <https://www.ipcc.ch/site/assets/uploads/sites/4/2020/02/SPM_Updated-Jan20.pdf> [↑](#footnote-ref-7)
8. IPCC at note 62. At 61.

   Bates, B.C., Z.W. Kundzewicz, S. Wu and J.P. Palutikof, Eds., 2008: Climate Change and Water. Technical

   Paper of the Intergovernmental Panel on Climate Change, IPCC Secretariat, Geneva, 210 pp. [↑](#footnote-ref-8)
9. Randerson *New Directtions* 2020 at 187 [↑](#footnote-ref-9)
10. OECD *Water Resources Allocation: Sharing Risks and Opportunities* (2015) OECD Studies on Water at 105 ff. [↑](#footnote-ref-10)
11. See Resource Management Amendment Act 2020. [↑](#footnote-ref-11)
12. R Oram “Now we can see our future” *Newsroom* (online ed, 12 July 2020). [↑](#footnote-ref-12)