TEU | TERTIARY EDUCATION UNION
TE HAUTŪ KAHURANGI

Submission of

Te Hautū Kahurangi | Tertiary Education Union

to the

Ministry for the Environment

on the

Inquiry into Climate Adaptation

November 2023

CONTACTS

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1. Te Tīmatanga | Introduction

1.1. Te Hautū Kahurangi | Tertiary Education Union (TEU) welcomes this opportunity to respond to the *Inquiry into Climate Adaptation*.

1.2. The TEU is the largest union and professional association representing 12,000 academic and general/allied staff in the tertiary education sector (in universities, institutes of technology/polytechnics, wānanga, private training establishments, and rural education activities programmes).

1.3. The TEU actively acknowledges Te Tiriti o Waitangi as the foundation for the relationship between Māori and the Crown. We recognise the significance of specific reference to Te Tiriti in the Education Act and the emergent discourse resulting from this. We also accept the responsibilities and actions that result from our nation's signing of the UN Declaration on the Rights of Indigenous Peoples.

1.4. The TEU expresses its commitment to Te Tiriti by working to apply the four whāinga (values) from our *Te Koeke Tiriti* framework as a means to advance our TEU Te Tiriti relationship in all our work and decision-making – with members and when engaging on broader issues within the tertiary sector and beyond – such as our response to the *Inquiry into Climate Adaptation*:

> *Tū kotahi, tū kaha – We are strong and unified; we are committed to actions which will leave no-one behind; we create spaces where all people can fully participate, are fairly represented, and that foster good relationships between people.*
>
> *Ngā piki, ngā heke – We endure through good times and bad; we work to minimise our impact on the environment; we foster ahikā – the interrelationship of people and the land, including supporting tūrangawaewae – a place where each has the right to stand and belong.*
>
> *Awhi atu, awhi mai – We take actions that seek to improve the lives of the most vulnerable; we give and receive, acknowledging that reciprocity is fundamental to strong and equitable relationships; and we work to advance approaches that ensure quality public tertiary education for all.*
>
> *Tātou, tātou e – We reach our goals through our collective strength and shared sense of purpose, which are supported through participatory democratic decision-making processes and structures.*

1.5. Our response to the *Inquiry into Climate Adaptation* stems from our commitment to the whāinga expressed above and our wish to see these enacted in the tertiary education sector and in our society and communities.

2. Preamble

2.1. TEU sees a need for well-designed and adequately resourced education and learning opportunities to be built in as part of community-led adaptation or "managed retreat" processes. The tertiary education sector, alongside other education sectors, has a critical role to play in supporting effective community-led and community-empowering adaptation to (and mitigation of) climate change impacts for Aotearoa New Zealand. Within the context of Aotearoa New Zealand, tertiary education is necessary for both supporting our research, science, innovation, and technology system, as well as empowering people to obtain the necessary knowledge and skills to understand what it will take to mitigate and adapt to climate change in ways that are equitable, socially just, and honor Te Tiriti o Waitangi.

2.2. International experts have identified education as one of six potential social tipping interventions (STIs) to transform societies towards safe climate futures (Otto et al. 2020).[1] It is essential that people and communities have access to the knowledge, skills, and supports they need to lead localised planning and problem-solving for climate adaptation, and to ensure effective, respectful, and constructive communication and engagements between local/community-based and national-level systems and bodies. Frustratingly, the role and contribution of education is often overlooked or underplayed in climate action policy design, and the role of education policy in helping to address climate change is one of the most important, and most under researched, areas in the field of global education policy.[2]

2.3. The dual transitions that are needed – adaptation to a climate-altered world for the impacts that can no longer be reversed, and the transition to low-carbon living to prevent worsening of the crisis – present many challenges for societies. However, these also present significant opportunities to rethink how we live,

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[1] Otto, Ilona M., Jonathan F. Donges, Roger Cremades, Avit Bhowmik, Richard J. Hewitt, Wolfgang Lucht, Johan Rockström, Franziska Allerberger, Mark McCaffrey, Sylvanus S. P. Doe, Alex Lenferna, Nerea Moran, Detlef P. van Vuureb, and Hans Joachim Schellnhuber. 2020. "Social tipping dynamics for stabilizing Earth's climate by 2050." *Proceedings of the National Academy of Sciences of the United States of America* 117(5):2354-2365.

[2] McKenzie, Marcia, and Nicolas Stahelin. 2022. "The global inter-network governance of UN policy programs on climate change education." *International Journal of Educational Research* 116(4):102093.

work, and build communities in ways that are socially, culturally, environmentally, and economically sustainable.

2.4. TEU sees the need for intentional learning design around our climate futures within tertiary settings, as well as sustained support and resourcing for school/ECE, community- and marae-based learning around our climate futures that is grounded in, and driven by, the values, needs and aspirations of communities. Partnership and collaboration models can help to ensure that communities can access tertiary sector expertise, and vice-versa.

2.5. TEU recognises that education and learning design for climate adaptation (and mitigation) is needed for all communities, not just those identified at greatest risk of climate impacts. A climate-justice approach recognises the causes and exacerbating factors that have led to the need for communities to adapt and/or retreat, and the competing interests that may be at play in collaborative decision-making spaces.

2.6. The remainder of our submission relates to the structure of the issues paper. Although we recognise issues outlined in each chapter as of significance, the focus of our submission is chapters 1 and 2.

3. Chapter 1 – Context

Question 1 (p.13): *Do you think we should use the term 'community-led adaptation'? If not, what do you think we should use and why?*

3.1. TEU supports the notion that climate change adaptation should be 'community-led' in the sense that communities – including iwi and hapū – are given a key role in shaping climate change adaptation, and that climate change adaptation decision-makers are accountable to communities, iwi, and hapū.

3.2. TEU considers that the term 'community-led adaptation' is preferable to the term 'managed retreat' which has had connotations of government (central and/or local)-led decision-making without strong accountability to communities, and iwi/hapū.

3.3. A community-led adaptation approach would be best supported by thinking with a bi-partisan, intergenerational perspective that spans political, planning, and financial cycles to embolden long-term, whole community engagement.

4. Chapter 2 – The need for change

Question 2 (p.16): *Are there other barriers to Māori participation in adaptation and upholding Māori rights and interests? How can we better support Māori?*

4.1. There are significant barriers to Māori participation in adaptation and upholding Māori rights and interests. Breaches of the Treaty since 1840 recognised in Treaty settlements to date and yet to be resolved in current and future claims have undermined and disregarded Māori rights and interests. A 2023 claim indicates this is continuing. It refers to:

a. The overreliance on planting pine forests to offset Aotearoa's emissions, which is likely to mean carbon prices remain low for emitters, so pollution rates remain high and forest owners don't make the money they expected to, resulting in abandoned forests.

b. The resulting effect on the environment from production forests – such as the slash currently running down rivers and associated soil erosion after clear-felling plantations – and also from permanent plantations of pines with the subsequent cost to the restoration of indigenous taonga that Māori have kaitiaki responsibilities for and Te Tīriti rights to the protection of.

c. The failure of policy instruments like the Emissions Trading Scheme to better record the value of diverse indigenous forest and incentivise the planting and regeneration of native forests as an offset which would also be better for the environment.

d. Failure to support Māori communities in Tairāwhiti and elsewhere in adapting to the effects of climate change, that Indigenous peoples are suffering greater loss from sooner and more significantly than the general population.

e. Failure of the Government to provide support for the development of equitable and just transition plans and processes to support a rapid emissions reduction and economic development based on circular and regenerative local economies rather than extractive, unsustainable industries.

f. General failure of Government policies in reducing Aotearoa's emissions

4.2. Until these and other failures are adequately addressed, barriers to Māori participation in adaptation will remain.

Question 3 (p.17): *Are there other issues that affect the quality of risk assessments and local adaptation planning? How can we strengthen our approach?*

4.3. There are significant weaknesses in Aotearoa's governance arrangements, including a lack of clear leadership from central government around local authority long-term planning, the lack of effective Crown-Māori partnership, and poor central-local iwi/hapū relations.

4.4. Clear leadership needs to be provided by central government about what is required to ensure robust local adaptation planning. However, central government needs to recognise local government and iwi/hapū as key actors in local adaptation planning.

4.5. Robust local adaptation planning requires a long-term perspective – what Boston (2014) refers to as 'governing for the future'. Indeed, this is central to good governance. According to Boston, governing for the future requires governments to:

> *take a long-term view—looking out over decades, if not centuries, not merely a single electoral cycle of three or four years. A crucial goal of such an approach is future-proofing the state—that is, anticipating and preparing for foreseeable challenges, managing, and mitigating risks, building resilience, and reducing future vulnerabilities* [...][3]

4.6. When it comes to ecological health, pre-industrial societies arguably appreciated the importance of long-term thinking and, as Jared Diamond showed,[4] faced collapse if they did not. Advanced industrialised societies (including Aotearoa) have created significant environmental degradation – as evidenced by Cyclone Gabrielle – which is now having adverse effects on individual and community wellbeing requiring management and mitigation of risks, developing resilience and adaptation to as well as reduction of future vulnerabilities.

4.7. The tertiary education sector (universities, Te Pūkenga, and wānanga) is a key vehicle for supporting climate change adaptation initiatives. It also needs to be engaged in adaptation planning to ensure that its own staff and physical infrastructure are safe and resilient. The tertiary education sector can support climate change adaptation initiatives through its teaching and applied research in directly related subjects such as environmental science and management, construction technologies, transport technologies, etc. It can also support climate change adaptation indirectly through developing student understanding of climate change.

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[3] Boston, J. (2014). Governing for the Future while Meeting the Challenges of Today. In J. Boston, J. Wanna, & J. Pritchard (Eds.), Future-Proofing the State. Managing Risks, Responding to Crises and Building Resilience (pp. 3-27). ANU Press. https://doi.org/http://press-files.anu.edu.au/downloads/press/p283571/pdf/1.-Governing-for-the-Future-while-Meeting-the-Challenges-of-Today.pdf

[4] Diamond, J. (2005). *Collapse: How Societies Choose to Fail or Survive*. Penguin.

4.8. Te Pūkenga has a presence in many parts of Aotearoa New Zealand including remote places such as Ruatōria. It can be a hub for many communities. Kaimahi and ākonga have given support to cyclone recovery.[5] These skills can also be used for climate change adaptation.

4.9. To strengthen local adaptation planning a long-term planning horizon needs to be embedded into all planning. One mechanism to underpin this is legislation such as the Well-being of Future Generations (Wales) Act 2015. Another mechanism is to have a Future Generations Commissioner as Wales has.

4.10. Another way to strength adaptation is to have strong community 'buy-in'. As Simon et al. emphasise (2020, p.101)[6]:

> *Climate adaptation and mitigation encompasses more than infrastructure and 'hard' engineering solutions or one-off consultation exercises. As Eriksen et al. (2011, p.17) argue, climate change responses are only sustainable if they go beyond 'one-time climate proofing measures'. Learning for adaptation is essentially a social process and will therefore need insights from education experts and community development practitioners, many of whom are more comfortable operating in a space of 'not-knowing' and not needing 'to have all the answers' before initiating a conversation. This sort of orientation is vitally important as councils and scientists struggle to communicate scientific consensus that climate change Is happening, while acknowledging the uncertainty about what exactly this will look like in different places over time. We therefore suggest that local government planners, policy-makers, and engineers look to and include community development practitioners, social service providers, healthcare workers and education specialists when developing engagement strategies or forming climate advisory groups. This is important if local government practitioners and decision-makers want to understand the community development initiatives already occurring within their jurisdictions.*

4.11. The tertiary sector has a clear role in growing knowledge, skills, and understanding New Zealanders' need for taking collective action and thinking for the future, and research for innovative solutions. This role is set out in the 2017-2027 government strategy for Environmental Education for Sustainability (EEfS),

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[5] See https://www.eit.ac.nz/2023/08/eit-te-pukenga-horticulture-students-help-restore-infrastructure-at-cyclone-hit-orchard/

[6] Simon, K., Diprose, G., & Thomas, A. C. (2020). Community-led initiatives for climate adaptation and mitigation. Kōtuitui: New Zealand Journal of Social Sciences Online, 15(1), 93-105. https://doi.org/10.1080/1177083X.2019.1652659

Mātauranga Whakauka Taiao.[7] The Strategy identifies a need for coordination of efforts between government agencies to:

- Enable coordination of Environmental Education for Sustainability
- Grow capability and capacity in EEfS delivery, and
- Strengthen pathways in sustainable practice, including opportunities in tertiary education and training.

4.12. Considering new research, recent community experiences of the impact of our changing climate and the refresh of the NZ Curriculum and Te Marautanga o Aotearoa in formal education[8], a new Action Plan for this strategy is required for 2024-2027 and beyond, with funding allocated to enable implementation of these priorities.

Question 5 (p.18): *Are there other issues with the way we fund adaptation? How can we improve our approach?*

4.13. Sustained government investment in transdisciplinary research initiatives[9] into climate change adaptation in Aotearoa must be viewed as part of our national funding for climate adaptation. Recent and ongoing job cuts to address funding deficits in tertiary institutions are impacting some research groups currently working in these crucial areas. This leads to the loss of institutional knowledge and expertise.[10] It is essential to ensure that we are not losing programmes that are already educating and researching climate adaptation.

Question 6 (p.19): *What do you think the costs are of a failure to adapt or failure to adapt well?*

4.14. The TEU agrees with the Expert Working Group on the consequences of not adapting well:

"Other recovery costs, such as long-term impacts on wellbeing, are harder to quantify. They include personal and financial stress, disruption to education and access to healthcare, destruction of ecosystems, interruptions to services and the impact on personal and cultural connections to places that will be changed forever." (p.19)

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[7] Environmental Education for Sustainability Strategy and Action Plan (doc.govt.nz)

[8] Curriculum and assessment changes – Education in New Zealand

[9] For example, He Kaupapa Hononga (University of Otago's Climate Change Research Network); Kā Rakahau o Te Ao Tūroa | Centre for Sustainability (University of Otago); Ngā Ara Whetū | Centre for Climate, Biodiversity, and Society (University of Auckland).

[10] https://thespinoff.co.nz/science/31-05-2023/when-downsizing-means-destroying-our-universities

4.15. TEU recommends urgent assessment of risk to education infrastructure from climate related events is needed. This will help prioritisation of property upgrades or retreat and inform communities at imminent risk, so they can adapt and act to stay safe and retain access to quality education via early childhood education (ECE), primary, intermediate, secondary schools, kura Māori, and tertiary institutions.

4.16. Education institutions are already hubs of diverse community activity, and in emergencies provide supportive gathering places from which civil defence can be co-ordinated. Many schools and tertiary buildings are sited on low-lying land vulnerable to multiple hazards. These research and teaching facilities need to be prioritised for retreat or have satellite hubs established in safer areas in advance of disaster, with pre-recovery plans to ensure they can continue to provide education services and provide disaster relief to the wider community.

4.17. An issue of advanced retreat is fragmenting communities or separating housing from education, health, and other services, enhancing inequities. Localised community-led decision-making is therefore essential, informed by science, risk analysis, mātauranga Māori, and local knowledge.

4.18. Evidence-based adaptation and retreat plans as well as emergency responses would be aided by adding site data (e.g., from national ARCGIS or GNS maps) such as elevation above sea-level, slope, shaking or flood risk, to existing educational institution data stored on public directories.[11]

[11] Directory of Educational Institutions