

**TEU****TERTIARY EDUCATION UNION**
TE HAUTŪ KAHURANGI

Submission of

**Te Hautū Kahurangi | Tertiary Education
Union**

to the

Climate Change Commission

on the

***2023 Draft Advice to Inform the Strategic
Direction of the Government's Second
Emissions Reduction Plan***

20 June 2023

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1. Te Tīmatanga | Introduction

- 1.1. Te Hautū Kahurangi | Tertiary Education Union (TEU) welcomes this opportunity to respond to the *2023 Draft Advice to Inform the Strategic Direction of the Government's Second Emissions Reduction Plan*.
- 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 *2023 Draft Advice*:

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.

Awahi atu, awahi 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 *2023 Draft Advice* 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. Introduction: the *2023 Draft Advice* must recognise and account for the role of tertiary education as a key enduring lever for enabling, supporting, and sustaining climate transitions and adaptation.

2.1. We urge the Climate Change Commission (CCC) to strengthen its advice by including recommendations for a strong, stable, and well-funded tertiary education sector.

2.2. At a broad level, the provision of quality tertiary education is essential if the government is to invest in Aotearoa New Zealand's social, cultural, environmental, and economic future. Regarding the global environmental crisis, tertiary education is essential for equipping people with the knowledge, critical thinking skills, understanding of research and science, and ethical frameworks that empower them to play a role in climate mitigation and adaptation (Reimers 2021). The tertiary education sector is also fundamental to supporting our research, science, innovation, and technology system.

2.3. Yet, our analysis of the CCC's draft advice noted just five substantive references to 'education' (p.93, p.94, p.106, p.107, p.167) and only twelve mentions of 'training' (p.80, pp.93-94, p.155, p.159, p.177, p.178).

2.4. TEU members are disappointed that the significance of tertiary education within the context of addressing the climate crisis is largely absent in the draft advice – there are no proposed recommendations concerning tertiary education – and we were particularly surprised to see that tertiary education is not clearly signalled in Part 3 of the CCC's advice about "Enabling system transformation."

2.5. The remainder of this submission outlines the problematic under-recognition of tertiary education in current climate policy, the significance of tertiary education in relation to addressing climate change, and the primary constraints that our tertiary education sector faces. The submission concludes with a set of recommendations.

3. Tertiary education is crucial to addressing climate change

- 3.1. We acknowledge that the Government's first ERP (2022-2025) includes *Action 3.1.2: Create an accessible, responsive, and flexible tertiary education and training system*.
- 3.2. While we welcome the acknowledgement of tertiary education in the first ERP, the commentary associated with this action does little more than describe "business as usual." It does not provide a strong vision or roadmap for investing in a robust tertiary education sector capable of providing high-quality, fit-for-purpose, education and training that will enable the transition to an equitable, socially just, and climate-resilient low-emissions Aotearoa New Zealand.
- 3.3. Regarding the CCC's draft advice, we acknowledge that Parts 1 and 2 speak to the need for adequate education re-/training to support people – including workers across key industries – to transition to low-emissions practices. We also recognise that Part 3 of the draft advice ("Enabling system transformation") begins to speak to the role of education in building knowledge and capabilities that will support key future-focussed areas, including research, science, innovation, and technology, and a circular economy and bioeconomy.
- 3.4. However, we consider these factors inadequate relative to the true contribution that tertiary education is capable of making within the context of emissions reduction and the wider climate crisis. Unfortunately, research indicates that this under-recognition of tertiary education and its pivotal role in climate transitions is a persistent problem that extends beyond climate policy in Aotearoa New Zealand.

The role of tertiary education is under-recognised in climate policy and negotiations

- 3.5. Both policymakers and scientists tend to make heavy use of IPCC policymaker summaries (Howarth and Painter 2016). However, analysis of IPCC reports conducted by the Monitoring and Evaluating Climate Communication and Education Project (MECCE) notes that these summaries "largely don't 'touch' education" (Hargis and McKenzie 2023).
- 3.6. Education has also been under-recognised in global climate negotiations such as COPs. 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 (McKenzie and Stahelin 2022). This broader context goes some way towards explaining why education persists as a "blind spot" for climate action policymakers, and those who provide evidence-based advice to governments on strategies for climate mitigation

3.7. We think the CCC's draft advice provides an opportunity to begin to rectify these issues whilst demonstrating leadership on the global stage.

Tertiary education is an essential "social tipping intervention"

3.8. The lack of recognition pertaining to the role of tertiary education is disconcerting, particularly given that scholars have identified education as one of six potential social tipping interventions (STIs) that may lead to worldwide transformation and the shift toward carbon-neutral societies by 2050 (Otto et al. 2020). Using an expert survey and literature analysis, the research of Otto et al. (2020) recognises climate challenge as a *complex systems* problem, noting that "both natural and social systems are characterised by a high level of complexity" and that "established social systems [...] while they may partly be open to change, tend also to possess self-stabilising mechanisms that oppose change, be it through infrastructural inertia due to investment cycles or cultural or political inertia due to deeply held traditions or power structures all representing aspects of social complexities" (p.2356).

3.9. A key issue in addressing the climate crisis is the lag time between recognising the problem and taking action to address it. History demonstrates that social and moral norms can impact behaviour on a large scale, and while transformative change in these norms is possible, the time it takes to create new norms might range from a few decades to a few centuries (Otto et al. 2020, p.2360). Otto et al. estimate 10-20 years might be needed to reach an education system "tipping point." This is a slower timescale than other change levers for decarbonisation, such as financial market changes or changes to energy production and storage – i.e., the kinds of levers that are evident in the CCC's draft advice which appear to be geared towards the fast gains that can be made in 2026-2030. Nevertheless, tertiary education as a social tipping intervention is critical to supporting and sustaining long-term change.

3.10. Otto et al's (2020) analysis shows two key areas pertinent to the tertiary education sector's potential contribution (see Table 1). Additionally, investing in education to transform society towards a low-emissions future can provide a range of well-being and public health co-benefits and "could be a chance to redesign the global socioeconomic institutions toward achieving a more just and equitable future" (Otto et al. 2020, p.2362).

Candidates for social tipping elements	Key actors able to influence the control parameter	Main control parameter	Examples of interventions	Critical threshold in the control parameter

Knowledge system	Intellectual leaders, scientific community, media	The number of people having worldviews accounting for socioecological complexities	Reconceptualisation of economics and valuation measures; convincing narratives of what can be gained from decarbonization; indigenous approaches to nature	The worldviews spreading from the minority to the majority of key actors
Education system	Scientists, teachers, educational ministries	The presence of climate change and relevant concepts in the public education	New educational programs at all levels of public education including climate change, ecological networks, system thinking	The relevant concepts becoming a part of the main curriculum

Table 1: The contribution of tertiary education (adapted from Otto et al. 2020, p.2358)

Constraints on tertiary climate change education

3.11. Leal Filho et al. (2021) note that contemporary higher education providers are progressively pursuing a dual strategy: first, by reducing their “carbon footprint” through adopting low-carbon operational practices, and second, by expanding the societal “carbon brainprint” through “developing curricula and pedagogical approaches to educate students (and by extension society) about the imperatives of carbon neutrality and climate change mitigation and adaptation.”

3.12. Significantly, however, the researchers also note that while institutions of higher education are recognising their responsibilities to act, “efforts can sometimes be stymied by organisational inertia, operational complexity and a plethora of regulatory requirements that impinge on governance in the higher education sector.”

3.13. With respect to the constraints surrounding the implementation of climate change education, Leal Filho et al.’s (2021) international survey identified lack of funding for climate-related research as the most common challenge, followed by lack of staff expertise – factors that point to the need for climate change training for tertiary educators. As for drivers, the survey indicated that additional resources dedicated to climate education were perceived as fundamental for improvements in this area, followed by national guidelines to address climate change in the curricula.

3.14. Added to this, Lal et al. (2022) surveyed climate health educators at Australian and Aotearoa New Zealand universities to explore the extent, design, and modes of delivery of planetary health and climate change educational offerings at tertiary institutions in Australia and Aotearoa New Zealand. They concluded that there is an urgent need to strengthen current the support available for

pedagogical leadership in the areas of climate and broader environmental change teaching at universities.

Summary and recommendations

- 3.1. Despite tertiary education being an essential “social tipping intervention” in the endeavour to address climate change, worldwide climate policy and negotiations consistently fail to recognise the crucial role of tertiary education. 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, mitigate, and adapt to climate change.
- 3.2. If our tertiary education sector is to reduce its own carbon footprint by adopting low-carbon operational practices while, at the same time, building its staff capacity and expertise, developing robust climate-related curricula and pedagogy, and supporting our research, science, innovation, and technology sector, adequate funding is a clear necessity.
- 3.3. As an advisory body that takes a “wide systems view” in providing advice “to guide Aotearoa New Zealand to change in ways that will help address the global problem of climate change,” we believe it is imperative that the CCC, in its advice, comment on the contributions of tertiary education, alongside other key levers for change.
- 3.4. Following this, we recommend a stronger package of advice that speaks directly to the contributions that an adequately funded tertiary sector can make to the goals set for the 2026-2030 emissions period, as well as the long-term changes that are required to address climate change.
- 3.5. The CCC’s draft advice should include recommendations for supporting a tertiary education sector that:
 - 3.5.1. **Is adequately funded** – under-funding has been shown to be the primary constraint on climate change education and research (Leal Filho et al. (2021). As such, it is crucial that our tertiary education sector receives adequate funding; without this, the contribution of tertiary education to the addressing of climate change will be undermined. With large-scale cuts currently being proposed at the University of Otago, Victoria University of Wellington, and Te Pūkenga – alongside small-scale job cuts at other universities across the country – it is clear that our tertiary education sector is suffering from a lack of funding (Tertiary Education Union 2023).

- 3.5.2. Fosters staff expertise and empowerment** – research has indicated that tertiary educators are seeking further training in areas, including: projections of future climate change; the economics of climate change; climate change solutions; climate governance; and the social impacts of climate change (Leal Filho et al. 2021). With adequate resourcing, support, and expertise, tertiary educators will be well-placed to perform an integral role in climate transitions through preparing graduates and upskilling workers so they are adequately positioned to adapt to the changing nature of work whilst being well-equipped to work collectively towards the social and cultural changes necessary for a Just Transition to a low-emissions, sustainable future. Added to this, the tertiary education sector must operate in a way that is conducive to the voices of tertiary education staff being included in the co-creation of strategies and policy that impact on the provision of learning and research, as well as professional learning and training opportunities designed to ensure climate-ready capability exists across the tertiary education workforce.
- 3.5.3. Provides robust curricula and innovative pedagogical approaches to climate change** – the key sectors identified in Chapters 7-15 of the CCC's draft advice must work with the tertiary sector to enable the investigation of challenges, the development of solutions, and the embedding of new practices into sector or industry education and training. All industry education and training should have a component that considers emission and climate implications of their sector and supports students to consider the future viability and potential challenges for their sector.
- 3.5.4. Is well-placed to support our research, science, innovation, and technology sector**

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