



A Stocktake of Climate Adaptation Learning Programmes Currently Available in New Zealand - Summary of Key Findings

1. Climate adaptation involves complex issues requiring input from multiple disciplines across multiple sectors. This has resulted in a broad range of professions being called upon to integrate climate adaptation principles and practices into their work decision-making.
2. Action 3.29 of Aotearoa’s first National Adaptation Plan (2022) requires the Ministry for the Environment (MfE) to produce an adaptation professional development programme for key audiences between 2025-2027.
3. The purpose of this project was to identify the number of courses and papers provided by tertiary institutions in New Zealand that referenced climate adaptation. In addition to identifying the courses and papers, the learning intentions of each course or paper were evaluated for relevancy against definitions of ‘climate adaptation’ used by the Intergovernmental Panel on Climate Change and the Global Centre on Adaptation. A second evaluation was undertaken which identified the number of courses/papers that ‘fit’ one or more of the 5 Steps in the Ministry for the Environment (MfE) Climate Change Adaptation Process (Adaptation Process). A sample of international universities and New Zealand professional organisations were also evaluated.
4. The first set of evaluation criteria relating to relevancy against definitions of ‘adaptation’ consisted of:

Relevancy Rating	Description
5	These courses or papers are focused on climate adaptation. Climate adaptation features strongly in the learning intentions (course outlines) of these courses.
4	These courses or papers have a high degree of relevance to understanding climate adaptation and range from legal, ethical, scientific, through to societal perspectives.
3	The content of these papers/courses contain one or more aspects of information essential for practitioners to be able to practise successfully in the field of climate adaptation.
2	These courses and papers contain specific foundational information that helps practitioners research, plan for, monitor and understand climate adaptation.
1	These courses or papers contain general information that provide broad background information about climate change and climate adaptation.

5. The second set of evaluation criteria relating to the Adaptation Process consisted of:

Process Steps	Description
1	Understand contexts, climate hazards and exposures.
2	Assess vulnerability and risk against values/objectives
3	Identify and evaluate options and pathways
4	Develop adaptation strategy and implement
5	Monitor and review

6. Summaries of the two evaluations are provided in Charts 1 and 2.

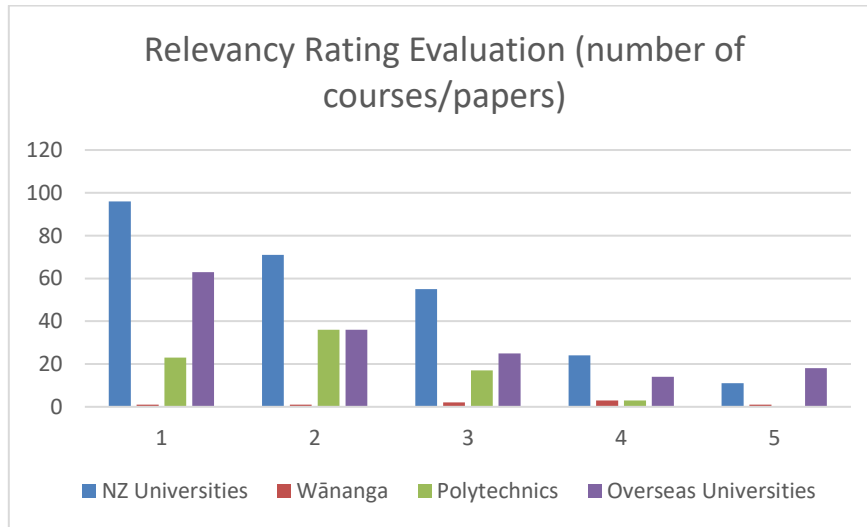


Figure 1 Evaluation against the selected definitions of adaptation

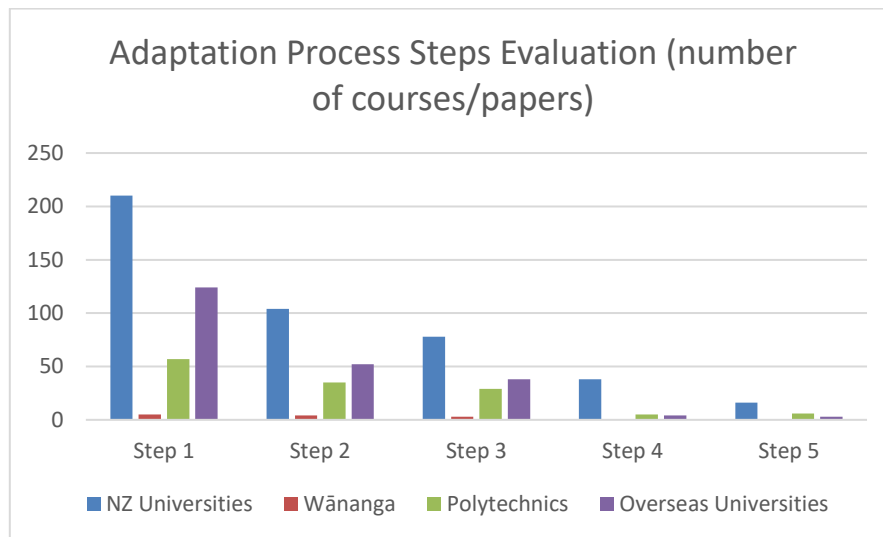


Figure 2 Evaluation against the Adaptation Process

7. From the 515 course and paper learning intentions reviewed, we found that 'climate change adaptation' as a specialist professional discipline has a low level of recognition amongst tertiary institutions within New Zealand and internationally.

8. It is clear from Charts 1 and 2 that courses and papers available diminish in number for each sequential step in the Adaptation Process i.e. courses or papers we found reflected a 'front-loading' of adaptation knowledge with less focus on the critical implementation and monitoring steps.
9. The large majority of material (86%) focused more on general or foundational climate change material, i.e. Steps 1-3 of the Relevancy Rating criteria. This was also reflected in the Adaptation Process with 74% of papers focusing on Steps 1 and 2 which require a broad understanding of climate change information in comparison with Steps 3 through to 5.
10. New Zealand-available courses/papers scored higher against Steps 4 and 5 of the Adaptation Process than the courses available through the international tertiary institutions.
11. Step 4 (developing and implementing an adaptation strategy) and Step 5 (monitoring and review) of the Adaptation Process both scored very low in comparison to the three earlier stages of the Adaptation Process.
12. Of the New Zealand universities, Auckland University provides 31% (80 papers) of the total number of adaptation courses/papers on offer. Massey University is second with 18% (46 papers), Victoria University third (17%, 43 papers), Waikato University fourth (13%, 33 papers), Canterbury University fifth (12%, 31 papers), Otago sixth (8%, 20 papers) and Lincoln University seventh (2%, 4 papers).
13. When considering which of the New Zealand universities provides the broadest coverage of papers across the five steps in the Adaptation Process, Auckland University offers a considerably greater number of courses/papers at every step (Step 1 (30%, 64 papers) Step 2 (39%, 41 papers), Step 3 (37%, 29 papers), Step 4 (61%, 23 papers) and Step 5 (81%, 13 papers).
14. Of the two wānanga, Te Whare Wānanga O Awanuiārangi is the more substantive provider of climate adaptation papers with content covering all five steps in the Adaptation Process. In comparison, Te Wānanga o Raukawa's two courses focus on Steps 3 and 4 of the Adaptation Process.
15. No adaptation courses or papers were identified at Otago, Waikato Wintec, Wellington Weltec, Whitireia, Ara Canterbury or Manukau polytechnics.
16. The polytechnic offering the most climate adaptation courses and papers was Southern (20), followed by Eastern (13), Open Polytechnic of New Zealand (12), WITT Te Pūkenga and UNITEC (11 each), Toi Ohomai and Nelson Marlborough NMIT (4), NorthTech (3) and UCOL (1).
17. Similar to the universities, the large majority of polytechnic course and paper learning intentions identified targeted foundational knowledge with 43% focusing on Step 1 of the Adaptation Process, 27% on Step 2, 22% on Step 3, and then a substantial drop to 4% and 5% for Steps 4 and 5 respectively.

18. Professional organisations have identified climate change as a matter that their members need to recognise for their professional development programmes and provide support via a range of delivery mechanisms. However, there appears to be little collaboration between such organisations and no courses were identified that were linked to the New Zealand Qualifications Framework. This is a constraining outcome of the member organisation professional development programmes identified in this research.
19. Development of a climate adaptation professional development programme will require leadership, cross-discipline collaboration, ongoing commitment, and funding.
20. The report made six recommendations:
 - i. That NAP Action 3.29 which has an allocated timeframe of 2025-2027 be brought forward to commence in the 2024-25 financial year. This will enable MfE to leverage, support, and influence the work the adaptation sector is already progressing.
 - ii. That a Taskforce of practitioners, tertiary education sector representatives, and representatives of climate-related Crown Research Institutions and other relevant science platforms, be established to develop an enduring Adaptation Development Framework across levels 4 through to 10 of the New Zealand Qualifications Framework.
 - iii. That MfE support the establishment of a professional organisation for climate adaptation practitioners that can lead cross-sector collaboration and development of multi-discipline climate adaptation learning programmes within the Adaptation Development Framework, as well as administering an accreditation programme for climate adaptation practitioners.
 - iv. That a practitioner-led project be funded to develop a competency framework for climate adaptation practitioners.
 - v. As an immediate step, that MfE funds a practitioner-led programme to develop a set of practical, user-friendly adaptation tools together with a suite of guidance documents to create an immediate positive impact on adaptation capability. This recommendation recognises that establishing a professional development programme, and identifying and utilising levers of influence, will take some time to work through.
 - vi. That MfE investigates how other mechanisms available to the Government, such as climate-related financial disclosures, might be used to escalate awareness of the need for specialist skills and competencies to be developed to cater to what will be an increasing demand to deliver climate adaptation interventions to local communities. Communicated appropriately, this initiative could readily influence the number of tertiary-level courses/papers available that fill the existing gap and cover Steps 3, 4, and 5 of the Adaptation Process.