

Learning and career pathways for a low-carbon future

Many industries and jobs will change as Aotearoa New Zealand transitions to a low-carbon economy. How can we support and inspire young people towards new opportunities and pathways?



In NZCER's 2020 survey of secondary classrooms where there is a focus on climate change, only **25%** of teachers said **students' career options and vocational pathways in a "green" or "transition to low emissions" economy** was a major or moderate focus.¹

Interviewees in NZCER's climate change research said education help students to learn about—and find pathways towards—jobs and careers that will be important in the shift to a low-carbon future.

People emphasised the importance of building young people's knowledge and capabilities for creativity, innovation, and problem-solving. They said schools can help by engaging young people in learning activities that model achievable solutions for a more sustainable, low-carbon future.

People said it was important to help students to feel engaged and excited about their opportunities in a transition-to-low-emissions-future economy, rather than disengaged, depressed, or feeling like they have no future because of climate change.

"We could be upskilling and giving opportunities to be training students into these green jobs. Our secondary NCEA needs to be positioned so students have an idea of what these skills are, and [ensure] our vocational education is offering skills for green jobs."

(Secondary school educator with systems-level role)

Putting it into practice

Some schools are already offering learners the opportunity to learn about, and be part of, a sustainable low-emissions future. Our research found examples where students were:

- taking actions or developing innovations that have a direct impact on reducing carbon emissions in their schools and communities
- taking active roles in projects to support community wellbeing and resilience in a climate-changed future
- contributing youth and community voice to local and regional council climate adaptation planning.

However, our research also found that in some schools, climate-conscious practices are driven by a few committed students, teachers, and school leaders. Although many schools have sustainability values, it is less common for climate change or just transition to be "on the radar" as a whole-school focus.

1. See <https://www.nzcer.org.nz/research/publications/climate-change-and-sustainability-secondary-schools-report>



Just transitions: What is education's role?

The transitions that Aotearoa New Zealand needs to make to reduce our emissions will have different impacts for different industries and communities. The Government has committed to making this process a “just transition”—one that is “fair, equitable and inclusive”, and involves “working in partnership with iwi, communities, regions and sectors to manage the impacts and maximise the opportunities of the changes”²

Education can support this by:

- inspiring and supporting learners towards transitional and low-emissions career and training pathways.
- supporting all learners and communities to understand the social impacts of climate change, including how it affects different regions and communities, and how it intersects with other social, economic, and cultural issues
- providing additional knowledge and support for learners and communities that are more impacted by climate change transitions
- designing curriculum and learning opportunities that develop learners’ knowledge, skills, and capabilities for living and working in a low-emissions society.
- supporting learners and communities to understand the opportunities for building a resilient, sustainable, low-emissions future for Aotearoa New Zealand

System-wide support for climate transitions

The education sector needs knowledge and support from government, business, industry, and communities to design learning opportunities and pathways that diverse young

people need in a transitioning economy. The Taranaki 2050 Roadmap is one example of shaping a collective, cross-sectoral vision for an inclusive, just transition to a low-emissions regional future.³

Some system-level policy changes and collective actions will be necessary to ensure just transitions for all young people and communities. For example, curriculum, assessment, and qualification pathways must align to enable effective climate-transitional learning approaches and pathways.

There are many opportunities for system-wide educational engagement and leadership. NZEI Te Riu Roa is showing leadership around climate change, and many unions are mobilising around just transitions. Organisations such as Enviroschools, Papa Taiao Earthcare, Science Learning Hub, Blake NZ, Royal Society Te Apārangi and many more have useful resources and programmes that grow teacher and student knowledge and pathways for a sustainable low-carbon future.

Questions to discuss in your school

- How might different communities in our area be impacted by climate change and the transition to a low-emissions economy?
- Are we connecting with other organisations, industries, and sectors to show young people the opportunities and possibilities for transitioning to a sustainable, low-carbon future in our area?
- What do our staff need to know so they can support students?
- As educators, what else can we do to contribute to a just transition to a low-emissions future in our area or region?

2. See <https://www.mbie.govt.nz/business-and-employment/economic-development/just-transition/>

3 See <https://about.taranaki.info/taranaki2050>, and McRae, J. (2021). Making transitions. *Ako*. Summer 2021. <https://akojournal.org.nz/2021/01/14/making-transitions/>