Upskilling for Canada's ClimateTransition

Upskilling for a Climate-Changed World:
Research Outcomes from a Future Skills Canada Project

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Agenda

- Context
- Attendee engagement
- Research summary
- Competency and qualification framework(s)
- Attendee engagement
- Closing

Context

Capacity building for advancing climate action leadership has become a critical workforce development requirement for both professionals and front-line workers across Canada.

Climate action leadership includes:

- climate change mitigation (reducing greenhouse gas emissions and tracking to NetZero goals); and
- climate change adaptation (planning for and addressing infrastructure and community resilience issues resulting from the cascading impacts of climate change)

Context

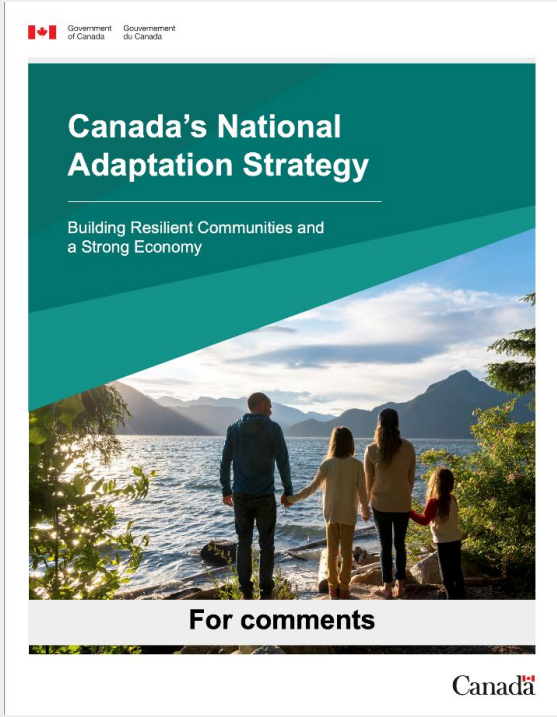
There is an urgent need for workforce reskilling and upskilling to effectively address the growing impacts and risks of climate change, and to accelerate an economic transition towards a low-carbon, resilient society.

Context

As the World Economic Forum Jobs 2020 report noted, there is an increasing need to provide short-timeframe opportunities for reskilling and upskilling that will not diminish as we move forward.

In this context, climate action knowledge and skills are among the world's most pressing needs.

Context



"Shared challenges can be addressed by building sector-specific adaptation knowledge and skills, and in areas such as labour, trade and supply chains, finance, investment, and insurance underwriting." (p.27)

National Adaptation Strategy

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Bold targets for capacity building will require innovative tactics that drive practice and policy towards a dynamic education and training environment for rapid upskilling and reskilling

Skilled workforce	By 2027, 75% of the members of professional associations (i.e., civil engineers, planners, landscape architects, and accountants) have the capacity to apply climate change adaptation tools and information and communicate the business case for adaptation measures to their clients
Climate-exposed sectors	By 2027, 80% of highly exposed business include adaptation to climate change in plans and strategies in orders to strengthen their competitiveness

The Problem

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There is an urgent need for workforce reskilling and upskilling to effectively address the growing impacts and risks of climate change, and to accelerate an economic transition towards a low-carbon, resilient society.

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How do we rapidly upskill and reskill the workforce to address climate-related leadership and action without a national qualifications framework that sets out the skills, competencies and standards to ensure we meet national targets?

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The Academy for Sustainable Innovation (ASI) and the Resilience by Design Lab (RbD Lab) in partnership with the Future Skills Centre, have launched the '*Upskilling for Canada's Climate Transition*' research project, funded by the Government of Canada's Future Skills Program. This project aims to identify the steps needed to upskill the workforce in order to support Canada's climate transition plan.

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What is this research project about?

It is focused on identifying:

The skills, competencies, and attributes required for individuals to take climate action within various leadership and vocational pathways

Opportunities for Canadian organizations to collaborate on skills development to support climate action leadership

Potential governance structures to provide an organizing system and set of principles for climate action competencies that might work across sectors

Skills Development Programs, including short-duration courses (micro-learning, micro-credentials, or certificate programs) that provide rapid upskilling for climate action

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Colleges and Institutes Canada (CICan) efforts

CICan submitted recommendations to the House of Commons Standing Committee on Finance in advance of Budget 2020.

Recommendation:

Support the development of a national framework to promote the integration of climate change adaptation and mitigation into postsecondary education and reskilling/upskilling programs to align with employers' emerging needs.

Universities Canada

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April 2023: Universities Canada unveiled, *Canada's universities: Action for net zero,* a coordinated effort to mitigate and address the impact of climate change.

The initiative will:

- Activate collaboration amongst universities (locally, nationally and internationally) to align efforts and share strategies to address gaps, share resources and best practices to address climate change;
- Launch of a nationwide survey to measure and track universities' greenhouse gas emissions;
- Host workshops to discuss challenges and opportunities for collaboration;
- Pursue new investments in universities' capacity to address climate change (i.e. research and infrastructure supports).

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To what degree do you perceive education and training for climate action as an area of concern/focus within your scope of work?

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How are you responding to climate-related workforce development within your scope of work?

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Research Overview

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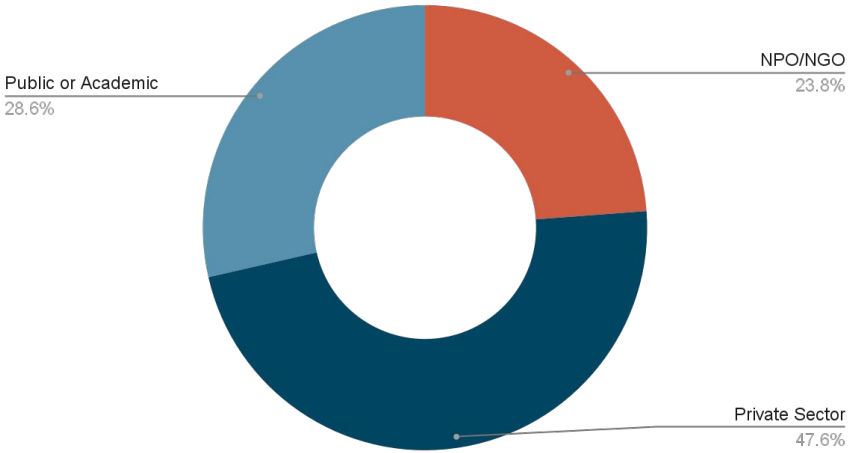
Work completed

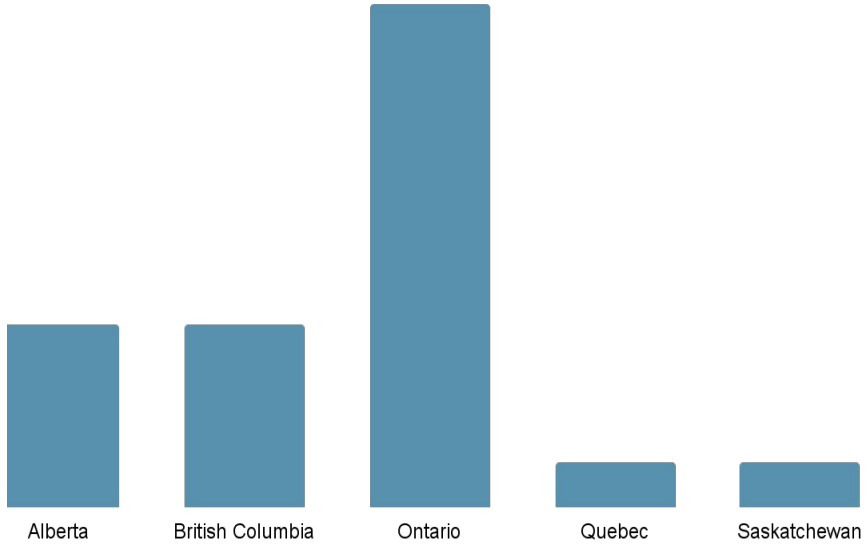
- Literature review / situational analysis
- Interviews
  - Cross section of perspectives (24 interviewees in total over 21 interviews)
- Job scan

Work underway

- Survey - aimed at a larger data set (aiming for 200 responses)
- Review of climate action capacity-building pilots
- Report and recommendations

Interviewees





Top Learnings from Project (to date)

- Skills and competencies are needed for Climate Action Leadership
- For scalability, we need an approach to a pan-Canadian upskilling effort
- Short-duration programs for climate action education and training are emerging across Canada

Top Learnings

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There is a lack of consensus around climate change urgency:

- Geographic realities of climate impacts (i.e., big country means diverse climate impacts to infrastructure and communities; different and diverse political jurisdictions; business agendas out of alignment; regional difference in industry and employment);
- Indigenous communities often at the forefront of climate impacts, but engaged only in a limited fashion, at best;
- Disassociation and distance from the problem (i.e., due to remote locations, individuality and fixed mindsets, and other bottom-up social issues which require remediation);
- Deficiencies in understanding the problem of climate change (i.e., how to contribute through adaptation or mitigation).

Top Learnings

Climate Action Leadership is needed.

- Public policy is not keeping pace with the urgency of climate challenges.
- This is growing pressure for businesses to integrate climate action into their approaches/strategies/goals (increasing the need for leadership upskilling).
- There is a shortage of professionals skilled in climate action.
- There is a need for ‘courageous leadership’- welcoming diverse perspectives in relation to climate change (e.g. leaders who can reach underrepresented or equity-deserving groups).
- There is a need for ‘soft’ / power skills (e.g. communications, partnership building, critical thinking, change leadership; etc.) which translates technical skills into action on the ground.

Top Learnings

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What skills and competences should be at the forefront of requirements to address climate action for professional and technical work within your work/employment sector? *(Interview data highlights)*

- Understanding/literacy of climate change and sustainability issues (18);
- Relevant technical skills: Energy efficiency in buildings (10), conducting gap analyses (7), strategic foresight (7), climate modeling (5), and nature-based valuation and accounting (5);
- EDDI (Equity, Diversity, Decolonization and Inclusion), Cultural safety and Cross-cultural relationship-building (8);
- Interprofessional communication (able to work with different audiences) (7);
- Change management / Intrapreneurship (6);
- Responsive and respectful to unique needs of communities when developing training programs; not arbitrarily forcing one dimensional training (6);
- Critical thinking (6);
- Adaptability (4); and
- Project Management (3).

Top Learnings from Interviews

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"For us to say we're going to wait until we have all the information and know exactly what to do.... that option is no longer available to us. And so I think [what's needed is...] cultivating bravery and leadership. ***I suspect that if there was a course called Courageous Climate Change Leadership for Corporate Executives, you would have a lot of attendees"***

Quote from interviewee

Top Learnings from Interviews

How might we build a national alliance of organizations to rapidly upskill the Canadian workforce for climate action leadership?

- There has been diverse responses and sentiments regarding the prospect of national and regional frameworks.
- Indigenous perspectives and contributions should be part of any approach.
- “Coalition of the willing”: build out a network of credible partners and grow from there.
- Models of governance: Explore the sharing of knowledge and techniques across sectors, industries and education platforms.
- National Qualifications Framework: the examples of Australia and New Zealand as a optimistic case study (national alignment, proactive engagement with reconciliation).

Top Learnings from Interviews

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“One of the outcomes of this project is to seed the case for something that happens in the academic sector to bring some consistency, but also the opportunity for alliances with the private sector training providers such as yourselves. Maybe we need to build a bigger tent to have these discussions.”

Quote from interviewee

Skills and Development Programs, including short-duration courses (micro-learning, micro-credentials, or certificate programs) that provide rapid upskilling for climate action

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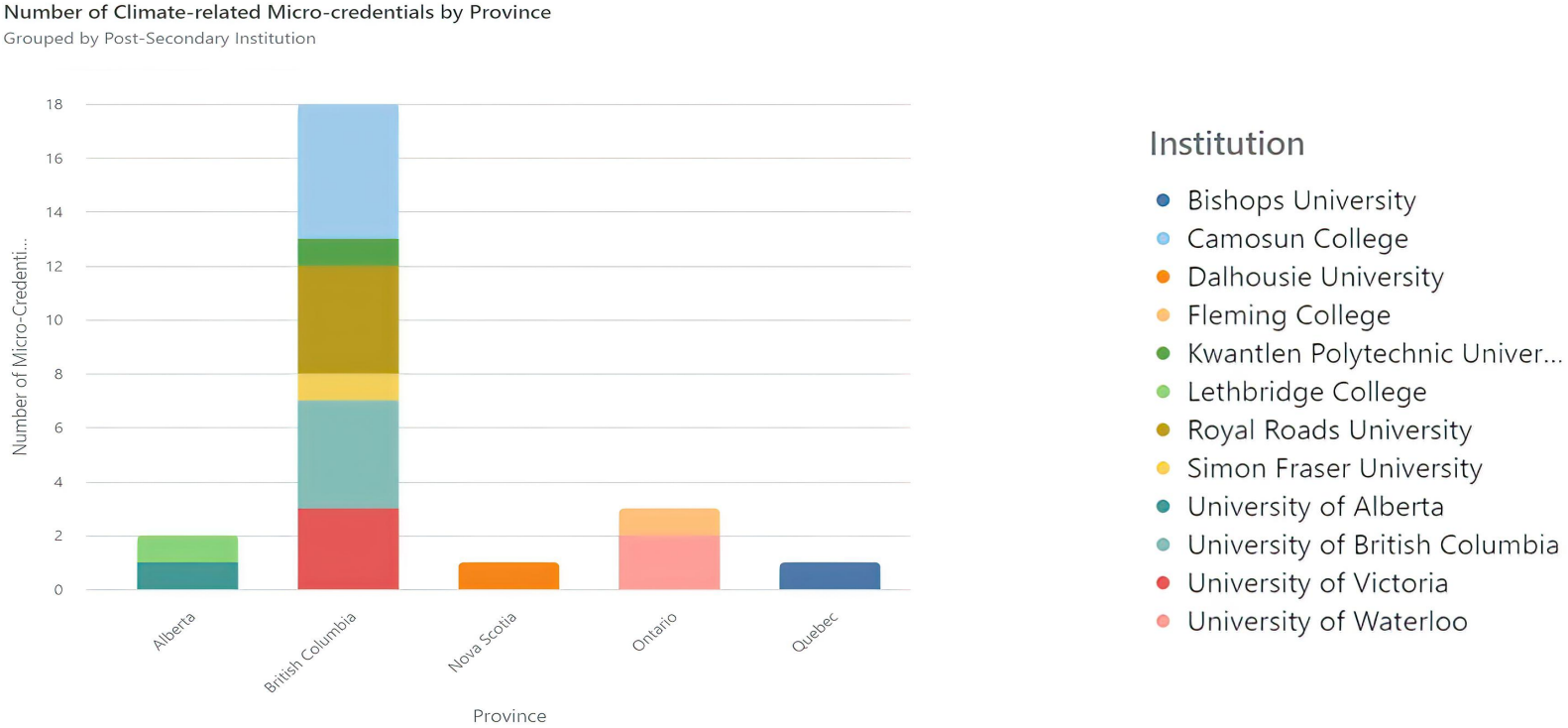

Moving Forward: How can we work together to advance urgent climate action?

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- Australia and New Zealand have explicitly linked their short-duration training programs (micro-credentials and their strategy) directly to national qualifications frameworks. Do we need a national qualifications framework for climate action competencies?
- What do we need to do in Canada to get beyond provincial approaches to urgent and wicked problems that require a national strategy?
- How do we assure optimal labour mobility, across regions and sectors, for people who have or are building climate action competencies?
- Can we create both provincial and national ‘post-secondary credit banks’ aligned to climate action competencies that support people advancing their education and career pathways?
- How could we work better with employers and professional associations to create a shared understanding of the issues and opportunities of rapid upskilling to take on the challenges of the climate crisis?

Discussion

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With 2-3 others near you, please discuss:

- What do you feel is needed most to help prepare the Canadian workforce to support Canada’s climate transition?

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Thank you!

For more information about this project, please visit:
sustainableinnovation.academy/upskilling