



Project Insights Report

# Rapid Reskilling to Support Nature-Based Solutions and Green Infrastructure Projects in Canada



**PARTNERS**

Environmental Careers Organization Canada (ECO Canada)



**LOCATIONS**

Alberta  
British Columbia



**INVESTMENT**

\$848,587



**PUBLISHED**

March 2025



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## Executive Summary

This project was created in response to employment challenges in the natural resources sectors in British Columbia and Alberta. These challenges were exacerbated by economic downturns, climate change impacts and the COVID-19 pandemic. The project aimed to retrain workers from the oil, gas, forestry and mining industries, enabling them to transition into roles that support environmental restoration and sustainability through nature-based solutions (NBS).

The project involved extensive labour market research, the creation of a pilot training program and the successful placement of over 50 program graduates into new jobs. Key collaborators included ECO Canada, the Delphi Group and the Louis Bull Tribe, who were instrumental in developing the curriculum and facilitating job placements. The training was delivered virtually and equipped participants with vital skills needed for NBS projects, such as skills related to emerging technologies and techniques for carbon sequestration.

The project highlighted the effectiveness of the training curriculum's adaptability to various needs, and of the wage subsidy and internship program. However, it also identified challenges like difficulties in filling work placements and the need for more flexible participant requirements. The initiative effectively demonstrated the value of early engagement with employers and ongoing labour market research to ensure the training met actual job market needs.

This initiative not only bridged immediate employment gaps but also built long-term community resilience and promoted environmental sustainability. The experience underscored the need for adaptive workforce development strategies, inclusivity and robust stakeholder partnerships. These elements are vital for the success of similar future initiatives. The project's methodology and outcomes offer a valuable blueprint for other sectors and regions, highlighting the benefits of flexibility and continuous enhancement in workforce training programs.

## KEY INSIGHTS

- 1 Rigorous labour market research informed the design of course materials for targeted occupations, which allowed 75% of participants to secure long-term employment.
- 2 Early engagement with employers was crucial for aligning training with needs and increasing employment prospects post-internship.
- 3 The project's approach to inclusivity and adaptability in training programs is a valuable model for other sectors experiencing workforce shortages or skills mismatches. It emphasizes the importance of flexible and responsive workforce development strategies.

## ▶ The Issue

Natural resources sectors have experienced a range of challenges over the past few years, including fluctuating commodity prices, climate change impacts, and trade disputes all of which were exacerbated by the COVID-19 pandemic. This acceleration in sectoral disruptions led to increased job insecurity, which affected communities and workers dependent on these industries. The oil and gas industries, which have long been mandated to reclaim and restore natural areas post-extraction, present a workforce with transferable skills that could pivot to emerging nature-based solutions (NBS) and green infrastructure projects.

Nature-based solutions and green infrastructure projects offer a promising avenue for these workers, providing opportunities to apply their skills in new contexts that focus on environmental restoration and sustainability. These projects are not only vital for restoring ecosystems but also for creating employment opportunities in urban, rural, remote and Indigenous communities across Canada. This shift is seen as a win-win, helping to mitigate climate change impacts while fostering more resilient communities.

Previous efforts to address the employment challenges in these sectors have included government-funded initiatives like the \$1.7 billion commitment to clean up orphaned and abandoned wells, which was projected to create over 5,000 jobs. Additionally, there were investments in the forestry sector and large-scale tree-planting initiatives. However, these measures, while providing temporary relief, have not fully addressed the long-term employment needs or the transition to sustainable practices that are increasingly demanded by the evolving labour market. This project aimed to build on these initial steps by providing more structured and targeted training programs to help workers transition into the nature-base solution sub-sector effectively.



## What We Investigated

This project explored several research questions aimed at addressing the needs of the natural resources sectors in Western Canada, particularly those impacted by economic downturns and structural shifts. The primary questions included:

- How can the existing workforce in the oil and gas, forestry, and mining sectors be rapidly upskilled to transition to NBS projects?
- What are the key occupations, skills and emerging trends required for NBS projects in Western Canada?

Additionally, the project sought to understand the demand-side and supply-side labour market dynamics for NBS projects, focusing on the transferable skills and pre-qualifications of the impacted workforce.

Key stakeholders included ECO Canada, the Delphi Group, Iron & Earth, the BC Watershed Security Coalition, Ecotrust Canada and the Louis Bull Tribe. These organizations collaborated to

- develop a pilot training program that included three training cohorts;
- conduct comprehensive labour market research;
- facilitate job placements for over 50 program graduates.

The research phase involved both demand-side and supply-side analyses that examined key occupations, skills and emerging trends necessary for NBS projects. The pilot training program aimed to recruit and train participants from Canada's oil and gas sector, applying an equity, diversity and inclusion lens to participant recruitment.

The intervention methodology included developing a curriculum focused on NBS project skills, emerging technologies and carbon sequestration knowledge. The training was delivered through three 8-week virtual programs using the ECO Canada training platform. Job placements were facilitated by partnering graduates with NBS projects on the ground, providing them with relevant work experience near their communities.

## ✔ **What We're Learning**

Over the course of the project, 80 participants successfully completed the Nature-based Climate Solutions (NbCS) training program. The training covered essential topics such as climate change understanding, sustainable practices, and safety in field operations.

### **Adapting for various audiences makes curricula relevant and accessible**

One of the project's significant achievements was adapting the training curriculum to meet the diverse needs of participants, including Indigenous communities, newcomers to Canada and workers from traditional industries. This adaptability was crucial in making the training relevant and accessible to a broad audience. For instance, the curriculum was tailored to include local labour market information and specific regional opportunities, such as hydrogen technologies in Newfoundland and Labrador.

### **Work-integrated learning experiences facilitated placements but also presented challenges**

The project also successfully implemented a wage subsidy and internship program, which facilitated 51 placements. This aspect of the program was instrumental in providing participants with practical experience, which is often a critical barrier to employment. The internships led 65% of participants to long-term employment with their host employer and nearly 10% to employment with different employers. However, finding work placements for those that completed the Nature-based Climate Solutions training was not easy. Despite the high interest, many applicants were ineligible to pursue the work placement due to geographic or other constraints such as not meeting the definition of a transitioning worker, located outside of Western Canada or those who applied after the program closed. This issue underscores the need for greater flexibility in participant requirements by employers and suggests that future projects could benefit from a broader eligibility criterion to accommodate a wider range of participants.

### **Early employer engagement improves employment prospects for participants and bolsters training design**

This strategy proved essential in ensuring that training was aligned with employer needs and increased the likelihood of employment following the internships. Engaging employers early in the process also facilitated the tailoring of training to meet specific industry requirements, enhancing the relevance and applicability of the skills taught.

## ★ **Why It Matters**

This project highlighted the critical role of continuous and responsive labour market research. The ability to adapt project goals and methods in response to emerging data and changing circumstances was crucial for meeting the needs of both employers and job seekers. This adaptability is a valuable practice for any sector, indicating that policies supporting ongoing research and flexibility in project implementation could lead to more successful outcomes across various industries.

The emphasis on partnerships with local communities and stakeholders, including the formation of advisory committees, was another significant aspect of the project. These collaborations ensured that the training programs were relevant and tailored to the specific needs of the communities and industries involved. This model of stakeholder engagement can be a powerful tool for policymakers and practitioners in other sectors, which suggests that fostering strong partnerships could enhance the impact and relevance of similar initiatives.

The lessons learned from this project are applicable to a wide range of policy and practice areas. They advocate for the importance of flexibility, inclusivity, continuous learning and strong stakeholder engagement in workforce development initiatives. These principles can guide the design and implementation of future programs, ensuring they are robust enough to adapt to changing economic landscapes and inclusive enough to benefit all community members.

Have questions about our work? Do you need access to a report in English or French? Please contact [communications@fsc-ccf.ca](mailto:communications@fsc-ccf.ca).

### How to Cite This Report

Richter, S. (2024). Project Insights Report: Rapid Reskilling to Support Nature-based Solutions and Green Infrastructure Projects in Canada, ECO Canada. Toronto: Future Skills Centre.  
<https://fsc-ccf.ca/research/nature-based-eco-canada/>



### State of Skills: Sustainable Jobs for Economic Growth

Green-related skills and knowledge are growing in significance and are becoming widespread across many sectors and occupations, requiring more workers to upskill by building upon their existing competencies.

[Read Thematic Report](#)

Rapid Reskilling to Support Nature-Based Solutions and Green Infrastructure Projects in Canada is funded by the Government of Canada's Future Skills Program. The opinions and interpretations in this publication are those of the author and do not necessarily reflect those of the Government of Canada.

The Future Skills Centre acknowledges that the Anishinaabe, Mississaugas and Haudenosaunee share a special relationship to the 'Dish With One Spoon Territory,' where our office is located, bound to share and protect the land. As a pan-Canadian initiative, FSC operates on the traditional territory of many Indigenous nations across Turtle Island, the name given to the North American continent by some Indigenous peoples. We are grateful for the opportunity to work in this territory and commit ourselves to learning about our shared history and doing our part towards reconciliation.

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