



Université de Montréal: Evaluation Report

Prepared for: Future Skills Centre

Prepared by: Johnston Research Inc.
172-104 Sherwood Ave, Toronto, ON, M4P 2A8

This report was produced as part of a project funded by the Future Skills Centre (FSC), with financial support from the Government of Canada's Future Skills Program.

FSC is a forward-thinking centre for research and collaboration dedicated to preparing Canadians for employment success. We believe Canadians should feel confident about the skills they have to succeed in a changing workforce. As a pan-Canadian community, we are collaborating to rigorously identify, test, measure, and share innovative approaches to assessing and developing the skills Canadians need to thrive in the days and years ahead. The Future Skills Centre was founded by a consortium whose members are Toronto Metropolitan University, Blueprint ADE, and The Conference Board of Canada

The opinions and interpretations in this publication are those of the author(s) and do not necessarily reflect those of the Future Skills Centre or the Government of Canada.



3.6 Université de Montréal:

Project: Building local capacity for community-based micrometeorological monitoring

Duration: March 2021- March 2023

Population: Youth (aged 15-29)

Industry Sectors: Environment

Region(s): Northwestern Canada

The project aims to . . .

- Develop capacity in micrometeorological monitoring for climate change research that includes: a theoretical framework, technical training, operation and maintenance.

Beginning / Past: Where the Project started

Université de Montréal understands that Northwestern Canada is experiencing twice the rate of climate warming compared to the rest of the Earth. This has a significant impact on water resources and regional climate. As Micrometeorological monitoring using the eddy covariance (EC) technique is the only way to continuously measure ecosystem-scale exchanges of carbon and water and determine how the northern land surface is responding to climate change, a network of ten EC towers across the Northwest Territories (NWT) was developed. However, the impact of the COVID-19 pandemic on travel restrictions revealed a major shortcoming of the EC tower network. Additionally, the absence of local micrometeorological expertise threatens its continued operation. Université de Montréal intends to build a training network to strengthen local capacity for community-based micrometeorological monitoring. This network will use knowledge co-creation and co-management to protect Canadian research infrastructure.

Experiences / Present: Program Impacts and Barriers/Gaps

Impacts:

The team has made strides in knowledge mobilization having contributed to and/or completing:

- A TV documentary on Arctic climate change
- French-speaking newspaper article (L'Aquilon; 27 August 2021)
- Scientific conference
- Promotional teaser video
- Project summary video on water quality and quantity research in the Dehcho region

Additionally, as a result of their involvement in the project, one trainee from the Fort Simpson region has become motivated to be more closely involved in various research and teaching activities. In collaboration with several academic and non-academic organizations, a bilingual virtual teaching material on "La science des changements climatiques" targeting college and entry-level university students across Canada was developed.

The team has built strong, lasting relationships and trust with with different Indigenous trainees and partners in the Dehcho and Inuvik regions, these relationships helped support the rebuilding of infrastructure at the Scotty Creek research site near Fort Simpson. Additionally, through the work over the last two years, various trainees and technicians have been able to tremendously expanded their skill sets and professional networks which has led to their involvement in additional national projects, and more permanent positions in the private sector and the territorial government.

Barriers:

The community-based micrometeorological monitoring project has experienced significant challenges throughout the project including a late-season wildfire in October 2022 that destroyed one of the project's key long-term research sites near Fort Simpson. However, through the relationships built during the FSC funding, the project team worked alongside Kúé First Nation in Fort Simpson and various international and Canadian partners to rebuild the site in the spring of 2023. Earlier this year (Jan-March 2023), the project continued its virtual efforts to engage with Indigenous partners and trainees, keeping them involved in the project as much as possible. However, they found that for many Indigenous partners and trainees' interest faded quickly due to the lack of mid-to-long-term perspectives. Nevertheless, the core group of 4 Indigenous partners and trainees in the Dehcho and Inuvik regions continue to remain actively involved, as the team seeks to secure follow-up funding opportunities that directly involve different community organizations in different regions of the Northwest Territories.

Transition: Primary Data Collection:

None. However, the Université de Montréal has found that conducting regular follow-ups, virtually or in-person is crucial to project success, along with flexibility and openness.

Future State: Next Steps

The project team is continuing to seek funding opportunities to continue the work.