

# Indigenous community engagement at Scotty Creek, Northwest Territories, Canada: Experiences and lessons learned

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## Introduction

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This contribution reflects on collaborations between researchers and Indigenous communities<sup>a</sup> in relation to the Scotty Creek Research Station, in the Dehcho, Northwest Territories (NWT), Canada. In doing so, a wide range of factors are considered, including the historical experiences of the Dehcho Dene descendants with outside authorities, a flawed treaty, and an extended process to clarify its meaning, on-going strained relationships with the Northwest Territories and Canadian governments, unprecedented climate warning and resulting land cover change, development of a long-term research station in the Dehcho, and a partnership agreement between the Northwest Territories government and a university 3500 km away in southern Ontario, Canada. These seemingly unrelated factors are brought together to tell a story of collaboration between researchers at the Scotty Creek Research Station and Indigenous communities of the Dehcho. The purpose is to provide some insights to help guide the future researcher-community collaborations in northern Canada and throughout the circumpolar region.

<sup>a</sup>The term *Indigenous communities* as used here refers to the populations that existed prior to contact with Europeans, as well as their First Nations and Métis descendants.

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## The Dehcho

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Denendeh, the traditional territory of the Dene people covers an area of over 1,000,000 km<sup>2</sup> that includes the Mackenzie River Valley and the Barren Grounds of the Northwest Territories, Canada. Within this traditional territory is the Dehcho, a 215,615 km<sup>2</sup> administrative region of the Northwest Territories, Canada, established in May 2001 and named for the Dehcho (Mackenzie) River that flows through it and dominates the landscape. According to the Master Trust Agreement, the Dehcho includes 10 individual Indigenous communities<sup>b</sup> and in 2016, the overall resident population was 3075 (Statistics Canada, 2018).

The first recorded encounter of the Dene with Europeans in what is now the Dehcho region occurred in 1789 during the expedition of Alexander Mackenzie (Canadian Encyclopedia). However, it is likely that the Dene had already interacted with European traders on Great Slave Lake and adjacent fur trading routes (Yerbury, 1986). It is also possible that Samuel Hearne's voyage to Great Slave Lake in 1771 included chance encounters with the Dene (Hearne, 2007). In 1803, European traders founded the *Fort on the Forks* at the confluence of what are now known as the Mackenzie and Liard rivers. Within a few decades, the Hudson Bay Company erected a trading post at that location and named it after George Simpson, the then Governor of Rupert's Land. Soon afterward, trading posts were established throughout the region, and by the mid-19th century, Anglican and Roman Catholic missions were present. In the early 20th century, the Government of Canada pursued treaty negotiations with Dene and other Indigenous groups as a means of gaining access to over 950,000 km<sup>2</sup> of present-day Yukon, Northwest Territories and Nunavut. This led to the signing of Treaty 11 in 1921.

The negotiations leading up to the signing of Treaty 11 were conducted in haste and there remains to this day considerable disagreement between the parties on what was meant by the treaty. Fumoleau (2004) suggested there were no "negotiations" since Treaty Commissioner Conroy was instructed by Ottawa to adhere strictly to the terms of the treaty. The author also noted "the text of the treaty was completely unfamiliar to the Indian people, who saw the paper it was written on for the first time on the day the Commissioner arrived" (p. 165). By this account, the Treaty whose terms were prepared in advance were imposed, rather than negotiated. Moreover, signing was conducted community by community, and as such followed a divisive process that did not include opportunities for discussion among communities on how the terms of the treaty would affect their collective well-being. Oral history recalls promises to amend the Treaty, but that such promises were not honored by Canada.

According to the Dene oral history, Treaty 11 was a *peace and friendship* treaty between sovereign nations, and as such did not extinguish Dene title to any land but confirmed that the Dene and their descendants would continue to own and govern their land and resources, while allowing non-Dene to settle and explore for minerals. Given the Dene belief that their people and language came from *the land*, the concept of land ownership itself would have been foreign to the Dene signatories, and so a central issue is whether or not those who signed Treaty 11 realized that they were conceding "ownership" of the land. In September 1973,

<sup>b</sup>The number of communities identified as part of the Dehcho region varies among organizations, e.g., Statistics Canada (9), Health & Social Services Department of the NWT government (8), other departments of the NWT (6).

Justice Morrow concluded that the Dene are the *prima facie* owners of the lands covered by Treaty 11, and that “there is sufficient doubt on the facts that aboriginal title was extinguished that such claim for title should be permitted to be put forward by the caveators” (nwttimeline.ca). The 16 chiefs won their case, however, Morrow’s decision was soon overturned on appeal to a higher court, although the higher court did not question Morrow’s ruling that the Dene had *aboriginal rights* to the land. Canada therefore maintains its interpretation of Treaty 11 as the surrender by the Dene of their traditional territories in exchange for cash payments, reserves, and permanent protection for their hunting and fishing rights. A century after the Treaty was signed, the disagreement between the two parties over the terms of the Treaty continues. The negative impacts of an ineffective treaty and protracted negotiations on the socioeconomic well-being of the Dene people is exacerbated by the instruments of cultural assimilation, including residential schools and other legacies of the Indian Act (1876).

The current negotiation process between Canada and the Indigenous communities of the Dehcho began in 1999 and is known as the Dehcho Process. This process instituted the Dehcho First Nations (DFN), an organization whose mandate is to negotiate on behalf of the Dehcho’s communities. The DFN includes an Executive Committee and a Board of Governors whose memberships draw heavily from the chiefs/presidents of the participating communities (collectively “the leadership”). As such, the DFN is guided by the leadership, which takes its direction from leadership resolutions. The DFN also includes an elected grand chief who serves as the chief executive officer and represents the interests of region.

The object of the Dehcho Process is to produce an agreement that “builds upon and clarifies existing treaties” by recognizing a “government based on Dene laws and customs, and other laws agreed to by the parties.” However, the process has been hindered by the need to negotiate and reach agreement on numerous preliminary and intermediate steps. For example, before discussions on an Agreement-in-Principle (AiP) began, the parties had to negotiate the Interim Measures Agreement (IMA), Framework Agreement (including 21 Common Ground Principles), Interim Land Withdrawal Agreement, and the Interim Resource Development Agreement. These agreements also established new entities and processes such as the Dehcho Land Use Planning Committee established by the IMA with a mandate to produce a land use plan for the Dehcho, a work still in progress. Further delays resulted from litigation and negotiation over Canada’s decision to impose the Mackenzie Valley Resource Management Act and an environmental review process for the Mackenzie Gas Project.

As federal governments changed over the years, new policies were introduced that complicated the Dehcho Process. For example, in 2008, Canada announced that it would not negotiate an AiP or final agreement unless it is based on its new comprehensive claims policy, requiring a process of land selection. In 2013, Canada and the Government of the Northwest Territories (GNWT) reached a Devolution Agreement which transferred a suite of responsibilities to the territorial government, and elevated the role of the GNWT in the Dehcho Process. However, the DFN was not consulted on the devolution process, does not recognize it, and has taken the position that the Dehcho Process must be completed prior to devolution taking effect in the Dehcho. The DFN’s position on devolution has not prevented the GNWT from engaging in the Dehcho Process. Soon after the Devolution Agreement, the GNWT announced that 45% of Dehcho lands must remain both crown Land and open for development. This policy ensures that 90% of the *open* lands are owned by the GNWT, while the remainder includes federal and territorial parks and conservation lands,

and DFN-owned lands open for development. Aside from the land and resource policies of the GNWT, their fiscal policies add complexity to the AiP, jurisdictional policies conflict with Dehcho law, and their educational policies do not allow the DFN control over school curricula. There are also GNWT policies that do not recognize DFN jurisdiction to act as a self-government in the interim of an agreement, leading to a lack of agency in building human resource capacity in the region. For example, in the areas of capital planning and infrastructure development, there is an absence of collaboration between the GNWT and local communities needed to build the capacity that will help ensure service delivery and a smooth transition to self-governance.

To the outside observer, the dialog between the DFN and their counterparts in the federal and territorial governments is not what one would expect between sovereign nations, as the DFN often appears to hold the status of a “junior partner” in the Dehcho Process. As an example, in 2018 the DFN provided to the GNWT a comprehensive plan for protection of the Edézhzhíe, an area of high cultural significance to the Dehcho Dene. However, the GNWT refused to respond citing that progress in *other areas* (i.e., toward a final land claims agreement) must come first. Such an approach to negotiation with an Indigenous organization appears coercive and is arguably at odds with the goals of international environmental organizations and initiatives in regards to Indigenous rights to manage resources (e.g., UNDRIP). Nevertheless, Canada did establish Edézhzhíe as a National Wildlife Area, despite GNWT objections.

The evolving sociopolitical setting in the Dehcho described above, in addition to fundamental differences between how *the land* is traditionally viewed by the Dene and how it is viewed by outside, mainly economic interests, has nurtured a climate of mistrust between the region’s Indigenous governments and the governments of the NWT and Canada. The uncertainties of this evolving sociopolitical climate in the Dehcho are aggravated by a new and entirely different suite of pressures arising from unprecedented climate warming, which is physically changing the lands and waters throughout the Dehcho. Air temperature records indicate that warming in the Dehcho commenced in the mid-1970s, and since then the region has become one of the most rapidly warming on Earth. Permafrost thaw is widespread throughout the Dehcho and aside from transforming its land and water, it is also damaging its roads, air strips, ferry crossings, bridges, pipelines, buildings, and other key infrastructure. Given that permafrost underlies much of the Dehcho, its thaw and disappearance has profound implications to the stability of land covers, the form and function of ecosystem, and the cycling and storage of water resources.

Despite the growing awareness throughout the Dehcho that permafrost thaw is negatively affecting the region, regulatory authorities, resource management boards, and communities are ill-equipped to respond effectively to this new and growing challenge because there exists little or no basis for decision-making. As a result, there has emerged a new and urgent need to investigate thaw-induced changes to the Dehcho’s land and water, develop and mobilize new knowledge on these changes, develop predictive modeling tools, and provide interactive training to Dehcho decision makers and other stakeholders. Because livelihoods in the Dehcho are so tightly connected to *the land*, an approach that places Indigenous communities in leadership positions is required to generate the new knowledge, predictive capacity, and decision-support tools needed to manage the land and water resources that support Dene ways of life.

Although the impacts of climate warming may vary within a region, climate processes and climate warming operate over much larger scales than the geographical area of the Dehcho. As such, the effects of climate warming in the Dehcho have also prompted reaction from the NWT and Canadian governments. For example, the GNWT has developed policy frameworks such as the NWT Water Stewardship Strategy that help understand, prevent, mitigate, and manage the impacts of climate warming so that “the waters of the Northwest Territories will remain clean, abundant and productive for all time.” The federal government has invested in the funding of research programs aimed at increasing the understanding of and capacity to respond to climate change. This convergence of interests of the DFN (and local Indigenous governments), GNWT and Canada has the potential to build bridges and new collaborations, or to cause further division.

### Scotty Creek Research Station

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For most of Canada’s history, research in the North was conducted in support of mineral exploration or large engineering projects. In the 1980s and 1990s, there was a marked growth of interest and activity focused on understanding the hydrological processes unique to cold regions and in numerically describing such process for the purposes of simulation and improved prediction of flows. During this period, the federal government introduced new funding models for research that encouraged the development of large, inter-disciplinary research networks. Since the 1990s, there has been a remarkable growth of research interest on the impacts of climate warming in the North. This drove a sharp increase in the number of research networks focused on the environmental sciences in northern Canada including the Dehcho, and a proportionately large influx of researchers and students in what has become an unprecedented expansion of the university sector in the North. It is important to note that since the NWT had no university of its own during this period, the growing university presence was driven by organizations from outside the territory. It was within this context that the Scotty Creek Research Station (SCRS) developed.

Scotty Creek (61°18' N; 121°18' W) is located 50 km south of Fort Simpson, the largest community in the Dehcho. Scotty Creek drains a 152 km<sup>2</sup> area dominated by boreal forest, wetland, and discontinuous permafrost, a terrain type that is biophysically representative of the lower Liard River valley and surrounding region. In the 1990s, the Scotty Creek basin was used by the Mackenzie GEWEX (Global Energy and Water Exchange) Study (MAGS), which aimed to improve the understanding of and ability to predict the flux and storage of water within and from the major biophysical land cover types of the Mackenzie River basin. In 1999, the emphasis of research at Scotty Creek shifted toward field-intensive studies, and in that year, the first multi-year instrumentation was installed for long-term monitoring. A seasonal camp was then established in 2001, and in 2003 it was upgraded to an all-season camp. In 2007, this was replaced with a new camp at First Lake, which remained in operation until 2012 when it was decommissioned and replaced by the present camp at Goose Lake, about 1 km to the south. By this time, the Scotty Creek Research Station as it came to be known was one of the major research stations in Canada’s north based on usage.

Located in the heart of one of the most rapidly warming regions on Earth, the SCRS is uniquely positioned for research, education, and outreach/engagement opportunities

focused on the impacts of climate warming on northern environments and communities. Even over the relatively short period from 1999 until the installation of the station at Goose Lake, permafrost thaw had transformed large areas of the Scotty Creek watershed from forested permafrost terrains to permafrost-free, tree-less wetlands. It was this permafrost thaw-induced land cover change that forced the camp relocations of 2007 and 2012. Land cover change has brought with it hydrological and ecological changes, and as a result, researchers and educators from a wide spectrum of environmental disciplines have been drawn to the SCRS. Over the years, the station has accumulated state-of-the-art research infrastructure and facilities that include several kilometers of boardwalk with signage, heated structures, stable AC power, internet, docks, vehicles, and other features required of a fully functioning and year-round station offering unique opportunities for high-quality research, training, and education. The SCRS is unique among such stations in that it has consistently hosted groups of researchers and students in every year since its inception in 1999.

The steady growth of knowledge on permafrost thaw processes at the SCRS coincided with the growing need of Indigenous communities throughout the Dehcho to understand how permafrost thaw will change the land and water over the coming decades. As a result, there was a natural convergence of knowledge producers (SCRS) and knowledge users (local and regional Indigenous communities). The new knowledge developing at the SCRS on permafrost thaw rates, controls, patterns, processes, and impacts was seen as potentially fundamental to the development of new knowledge-based, community-informed strategies for permafrost thaw monitoring, adaptation, process understanding, and prediction. However, community leaders recognized that this new knowledge would be far more impactful if it was co-developed and co-applied. This led to a deliberate change in practice of SCRS researchers, whereby research questions were increasingly co-developed, research grant applications were co-proposed with Indigenous community members, and research teams included both university-based and Indigenous community-based members. The overall objective of this new approach was to fuse Indigenous and scientific knowledges to better address the unprecedented challenges of climate warming.

A key element of the growing collaboration between the SCRS and Dehcho communities focuses on experiential learning opportunities for youth. In 2017, the SCRS and DFN piloted a 1-week field course at Scotty Creek on permafrost and related topics customized for the Dehcho. This course has been offered each year since 2017 and includes a mixture of 8–10 Dehcho high school students (Gr. 10–12) and an equal number of undergraduate and graduate level university students. The field courses provide Dehcho students with unique on-the-land experiential learning opportunities and a voice in creating new knowledge alongside researchers, university students, elders, and other community members. This approach places Indigenous community youth at the forefront of scientific research on subjects of importance to their communities. As a culminating task, the Dehcho students present their work to their high school peers, and to community members and researchers at one of the regular co-hosted (SCRS-DFN) community workshops, where research results are presented and discussed. The new friendships and respect that quickly developed between the university students (predominantly from urban, southern Canada) and the Dehcho high school students has been one of the most rewarding outcomes of this initiative.

The annual field course described above serves as a model for other knowledge mobilization initiatives. For example, the SCRS and DFN have also developed new on-the-land courses targeted for community members training to be Dehcho Guardians, with each course

contributing to their certification. This includes specific courses that provide training on the use of new research tools and methods for application on the land (e.g., use of aerial drones for data acquisition) and in the office/laboratory (e.g., application of image analysis software). Guardians also partake in the field courses described above, which provides them with mentoring opportunities. Aside from the direct benefit to the trainees, these experiential learning initiatives also facilitate the transfer of knowledge to the larger communities by placing trainees into leading roles as trainers in their communities. This *train-the-trainers* approach helps generate an enduring pool of permafrost expertise, and ensures that the knowledge and predictive capacity produced is integrated into Dehcho community workplaces and applied by decision makers. Over the long term, this approach aims to support the implementation of the Dehcho's management plans and policies by providing a resource of trained-in-the-Dehcho expertise.

Since 1999, the SCRS has served the Dehcho as an *outdoor classroom/laboratory* for the observation and study of warming-induced change for a land cover type that dominates much of the Dehcho. Presently, the SCRS is in the process of transforming into an Indigenous-led *Research Park*, a flagship for scientific-Indigenous collaboration in Canada's North. The new park will be a locus for inclusion of Indigenous Canadians in research, empowering Indigenous youth (students/Guardians) through education/training initiatives, and facilitating engagement between Indigenous community members and researchers/students through respectful sharing of knowledge and experiences. As such, the research park initiative will help to build positive and enduring collaborations between Indigenous and non-Indigenous Canadians. The new park will be led by a consortium of Dehcho Indigenous communities in partnership with other entities (e.g., universities, government agencies) of their choosing and will remain a state-of-the-art, inter-disciplinary scientific observatory. It will also serve as a center of community engagement for researchers and community members to come together as *partners in learning* to exchange experiences and ideas, to co-develop new knowledge, and to nurture the next generation of collaborations between western scientists and Indigenous knowledge holders. Co-development of new knowledge is empowering to communities and solidifies researcher-community collaboration and is consistent with the desire of communities for co-development and co-application of knowledge.

Making the SCRS a place for researcher-community collaboration brings community decision makers closer into the process of generating new knowledge and knowledge-based predictive tools, and provides them with a deeper understanding of their meaning, application, and limitations. This will increase community inclusion and the likelihood that management and policy decisions will be well-informed and confidently applied, while reducing the levels of uncertainty and risk. Dehcho community participation and leadership at the SCRS is an investment in the Dehcho's knowledge economy, which ultimately benefits the NWT and Canada. This collaborative approach also helps to advance the goals of international environmental organizations and initiatives in regards to sustainable development (UNSDG, UNESCO) and sustainable land use (IUCN).

### The Wilfrid Laurier University—GNWT Partnership

The origins of the Wilfrid Laurier University (hereafter *Laurier*)—GNWT Partnership Agreement can be traced to several key events. One such event was the submission of a

proposal by a group of researchers at Laurier to the Canada Foundation for Innovation (CFI) for infrastructure support of environmental research on boreal forest ecosystems. At the time of application in October 2008, 20% of the proposal's budget had been secured by Laurier and private contributions. In April 2009, the CFI indicated that they would provide the maximum allowable funding of 40% of the budget. However, the Ontario Government, who it was hoped would provide the remaining 40%, decided not to support Laurier's application. Another key event was a speech delivered by the Hon. M. Miltenberger (Deputy Premier of the NWT, and Minister of Environment and Natural Resources (ENR)) in December 2008 to "IP3," a network of researchers (including SCRS researchers) and stakeholders focused on "Improved Processes, Parameterization and Prediction" in cold regions. The minister's speech stressed the urgent need for scientific input to the development of the NWT Water Strategy. Seeing the alignment between the GNWT's knowledge needs and the primary research focus at Scotty Creek, SCRS researchers W. Quinton and M. Hayashi (University of Calgary) began corresponding with Minister Miltenberger's staff. This led to a research proposal-development workshop in Yellowknife in March 2009 attended by the minister and key staff members from ENR and other GNWT departments, federal agencies, and NGOs. This initiated a close and growing working relationship between the SCRS and the ENR, which was solidified by the funding of a SCRS-ENR collaborative research grant application in April 2009. These two events although seemingly unrelated had by April 2009 become inextricably linked. Given the long-term presence of the SCRS in the NWT, and its new ties to the ENR that included the direct involvement of the minister, SCRS researchers presented Laurier's senior administrators with a plan to form a partnership with the GNWT (in place of the Ontario Government) as a way to finalize the abovementioned CFI budget. The initial response from the administration was negative, largely because substituting one provincial/territorial government partner for another was unprecedented with CFI, and because the administration had no ties to or any familiarity with the GNWT. However, the researchers persisted in their efforts both within and outside of Laurier to initiate such a partnership.

Over the course of several meetings in April and May 2009, Robert Sandford, an advisor to the IP3 network and to Minister Miltenberger, initiated discussions with the minister on the possibility of such a partnership with Laurier as a means of increasing environmental research capacity in the NWT and thereby lessening the dependency of the territory on training/education programs from outside of the NWT, where curricula and programming is controlled by other jurisdictions. It was explained to the minister that the CFI proposal would serve as the infrastructure platform for the partnership, that Laurier had already secured \$3 million, but that a new partner was needed to provide the additional \$2 million to finalize the budget. Negotiations between the minister's office and senior administrators at Laurier throughout the fall and winter of 2009–10 culminated in a 10-year Partnership Agreement signed on May 26, 2010 at Laurier by Minister Miltenberger and the President of Wilfrid Laurier University, Max Blouw. The stated purpose of the new partnership, whose origins can be traced to the SCRS and their collaborators in the NWT, was to provide new expertise to the GNWT for environmental research and education in order to expand the NWT's capacity to conduct research and monitoring, and to train the new expertise needed to manage its natural resources.

A timely alignment of other factors also contributed to the development of the partnership. For example, although the Final Devolution Agreement between the GNWT and Canada was not signed until March 2013, discussions and planning for the transfer of responsibilities from



federal agencies to the GNWT had been in progress for several years and very likely factored into the GNWT's decision to partner with Laurier given the impending need to increase scientific capacity. Moreover, the report of the Rosenberg International Forum on Water Policy (August 2009) strongly recommended that the GNWT partner with universities as a means to increase its capacity to sustainably manage its water resources. Another contributing factor was that Laurier had recently become a comprehensive university, and as result was eager to expand its research capacity and impact. Cold regions research had long been a central focus of research at Laurier since the establishment of the Cold Regions Research Centre in 1987. Cold regions research was therefore identified as a strategic area for research investment during the transition to a comprehensive university, and as such the partnership aligned well with Laurier's growth plan. It is also noteworthy that Minister Miltenberger showed exceptional leadership and vision, and key administrators at Laurier had academic backgrounds and continued interests in the environmental sciences. Had the outcome of the CFI application occurred a few years earlier (or later) with a different minister and with a different complement of administrators at Laurier, the partnership might not have developed.

With the Partnership Agreement signed, much of June and early July 2010 was focused on communications with the CFI to confirm the suitability of the funding match as well as on the revised plans for infrastructure development. This process was successful and was followed by detailed planning sessions, starting with the first Laurier-GNWT meeting since the partnership came into effect. The purpose of this 2-day meeting (July 13–14, 2010) was to identify thematic areas and common research needs and interests. Four themes were identified: water quantity, landscape change, water and environmental quality, and cross-cutting issues. For each theme, several focus areas were listed. Of interest to the present contribution, *permafrost thaw* was identified as a focus area for the landscape change theme, and *traditional knowledge* was listed as part of the cross-cutting theme. For much of the next decade, Laurier researchers and their colleagues from other institutions initiated and/or expanded research activities throughout the NWT. This process was facilitated by a Science Committee composed of researchers from both Laurier and the ENR (GNWT) and led by David Livingstone who was not affiliated with either partner, and who continues to serve as the Science Committee Chair. With this arrangement, the partnership was effectively run and led by its researchers. According to the terms of the partnership agreement, the role of senior administrators was limited mainly to dispute resolution.

For Laurier, the partnership in many ways has exceeded expectation. It has dramatically increased the capacity for research, training, and engagement for a large cross section of researchers, students, and educators at Laurier and in the wider research community. It has helped Laurier to distinguish itself internationally as a hub of northern expertise, and therefore to recruit high-caliber researchers, students, and other trainees interested in the North. It has also provided new leveraging opportunities to obtain additional funding for sustained research, training, education, community engagement, and knowledge mobilization, all focused on the needs of the NWT. These developments helped put Laurier on the international forefront of cold regions science and education. As an indication of its success, the partnership was granted the prestigious *Premier's Award for Collaboration* in 2012, and in 2015 the CFI re-invested in the partnership with a second grant to upgrade and expand the partnership's remote research/training sites, including the SCRS. In September 2017, Laurier opened an office in Yellowknife to provide space for research technicians and visiting researchers. The partnership was renewed in 2020 for a second term ending in 2030.

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## The partnership: Pitfalls and lessons learned

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The end of the first 10 years of the partnership presented an opportunity to evaluate its performance, consider lessons learned, and identify areas in need of improvement. Each of these subjects is discussed below.

### Partnership challenges

As discussed earlier, in its early years, the partnership was run by its researchers, including those who initially proposed it, and new researchers. This worked well since it was the researchers who were most familiar with the cultures, communities, and environments of the North. However, as the partnership grew, there was a gradual shift in its operation from one that was researcher led (i.e., a *grass roots* model) to one increasingly run by Laurier's senior administrators and their staff. A significant step in this direction was the appointment of a *Director of Northern Initiatives*. As for many Canadian universities, the senior administration at Laurier has the authority to appoint someone outside the normal, competitive hiring practice, if it is believed that the university faces an immediate need. Such was the case for this appointment in 2017, which was made without interviews, a slate of candidates, or any open discussion on the need for or purpose of this position.

The shift away from a researcher-led partnership model effectively increased the distance between Laurier and the communities and regions of the NWT, where researchers were not only very active, but also in many cases had built their careers. The shift also introduced new pressures on researchers to align their activities with Laurier's priorities, without any consideration of how such priorities align with those of local or regional Indigenous communities. This complicated the career-long collaborations with local communities that researchers had nurtured over many years or even decades. Pressure from the new director to double the annual person day usage at the SCRS without any community consultation, pressure on the SCRS to transfer its land lease away from the Dehcho (on whose land it resides) and to Laurier (3500 km from the Dehcho), and opposition within Laurier's upper administration to the SCRS evolving into an Indigenous-led research park are all symptomatic of the university's lack of appreciation for the multiplicity of histories, cultures, and opinions within the NWT, and lack of understanding of the history of political discourse between the Dehcho and the GNWT with respect to "the land." As an example, when the Grand Chief of the Dehcho First Nations visited Laurier in 2018 to take part in a panel discussion, the failure of Laurier to welcome her in accordance with the university's protocols as it did for the other visiting dignitaries, demonstrated a fundamental lack of understanding of Indigenous government within the university sector (e.g., Laurier's protocol recognizes only federal, provincial/territorial, and municipal governments). The shift away from a researcher-led partnership model combined with partnership growth and, therefore, increased expectation on the research stations as component of the partnership machinery has revealed the university's profound lack of understanding of the effort required to run such stations. The partnership's stations are without staff and, therefore, every aspect of their operation falls on a single university faculty member and his/her students. Laurier has staffed its new Yellowknife office, but arguably, there is a much greater need to provide staff for the partnership's research stations.

In 2019, Laurier began negotiating with the GNWT a renewal of their partnership agreement. A “Renewal Committee” chaired by the director and including partnership researchers was struck to assist with the renewal process, however, the committee was never called upon to meet. By August 2019, researchers were learning through public news media that the partnership had been renewed. The renewal process, having been achieved without any open discussion with the partnership’s researchers, stood in stark contrast to the initial formation of the partnership 10 years earlier. Moreover, despite their long-standing support of university-based research on their lands, none of the Indigenous communities in the Dehcho (or anywhere else in the NWT) were consulted during the renewal process. At the Northern Research Basins Symposium and Workshop (Yellowknife, August 2019), an international meeting of circumpolar researchers and Indigenous community leaders co-hosted by Laurier and the GNWT, the representatives of the Inuvialuit and Dehcho regions both publicly expressed their disappointment with Laurier for not consulting their communities on the renewal. Increasingly, partnership researchers found themselves having to account for the actions or inactions of their university. Given these challenges and the lessons they have provided, the question remains as to what corrective steps might be taken. Some possibilities are discussed below.

### A more inclusive partnership

The Laurier-GNWT partnership is a bi-lateral agreement. Fundamentally this is problematic, because while the partnership implicates Indigenous communities, it excludes them from direct participation. Neither Laurier nor the GNWT is supportive of Indigenous community representation on their partnership’s Science Committee, and therefore the question remains—how do Indigenous communities fit in? Collaborations with Indigenous communities are strongly encouraged by the GNWT, and such collaborations are often discussed within the Science Committee. However, without representation in the partnership, the Indigenous communities can only participate at arms length and as *junior partners* rather than as equal partners. Moreover, discussions about communities in the absence of community members, contravenes the well-known sentiment of *nothing about us without us*. To someone familiar with the political history involving the GNWT and the Dehcho, it is easy to understand why the Dehcho Dene would be uncomfortable with the GNWT representing their views or speaking on their behalf. In practice, researchers interact with both the GNWT (e.g., through permitting, research collaborations) and with local communities, and so a multi-lateral partnership (i.e., Indigenous communities-GNWT-researchers) would more accurately reflect how research and community engagement is actually conducted in the NWT. Such an approach would also align with the new policies of equity, diversity, and inclusion that federal research funding agencies expect of universities. Considering that it is the researchers (not the university administrators) who have direct lines of communication with communities, and that the role of researchers in leading the partnership has diminished as explained above, the bi-lateral model is increasingly problematic. In such a model, Laurier’s administrators must rely exclusively on the advice of their counterparts in the GNWT in regards to all matters affecting the NWT. In the absence of Indigenous voices, the university administrators tend to mistakenly equate the GNWT with the NWT. Given the long-standing

tensions and mistrust between the GNWT and the Dehcho region, direct participation of Indigenous communities is preferable. Moving from a bi-lateral to a multi-lateral model is an opportunity for Laurier to build bridges, increase Indigenous inclusion, help reduce the aforementioned tensions and mistrust, and therefore improve the environment for research, learning, and capacity building. The operation of the SCRS has evolved into a regional, multi-lateral partnership, and as such, provides an example of how to advance beyond a bi-lateral arrangement. As a first step toward a multi-lateral arrangement, the Laurier-GNWT Partnership could take on a new role as a *Partnership of Partnerships*, where the latter represents regional partnerships such as that which has carefully evolved at the SCRS.

## Research funding structure and expectations

The way in which research is funded and the conditions or expectations of the funding agencies on the universities who administer such funds strongly affect the nature of research collaborations. The partnership does not provide research operating funds (i.e., the CFI provides infrastructural funds only). Researchers must raise their own funding, mainly from federal granting agencies. The Canadian Institutes of Health Research (CIHR), the Natural Sciences and Engineering Research Council of Canada (NSERC), and the Social Sciences and Humanities Research Council of Canada (SSHRC) operate under a single administration known as the Tri-Council. A major funding priority of the Tri-Council is the training of *Highly Qualified Personnel*, which it defines as graduate and undergraduate students, post-doctoral fellows, and technicians enrolled or employed at a recognized Canadian university. Tri-council grant funds do not support the training of high school students, guardians, or other community trainees and therefore training initiatives such as the field courses offered by the SCRS must find alternate funding. Moreover, because the NWT does not yet have a university, Tri-Council funds are largely inaccessible for the training of NWT residents. However, for universities, the Tri-Council is the primary source of funding for the training of their students, including the students that travel from all parts of Canada to the NWT to conduct their studies. As such, the NWT serves Canadian and foreign universities as an *outdoor laboratory*, while potential trainees in the NWT are largely excluded other than through temporary employment as field assistants, interpreters, or guides.

The Tri-Council Policy Statement (TCPS) on ethical conduct for research involving humans (TCPS 2, 2014), [Chapter 9](#) (Research Involving the First Nations, Inuit and Métis Peoples of Canada) compels researchers/students and support staff to take necessary steps to educate themselves in advance so that their interactions with Indigenous communities are positive and constructive. For example, Article 9.8 states “Researchers have an obligation to become informed about, and to respect, the relevant customs and codes of research practice that apply in the particular community or communities affected by their research.” Despite this requirement, most universities have very few resources to help faculty, students, and staff comply with [Chapter 9](#). A logical university response to this shortcoming would be to host regular training events (e.g., an “Indigenous Day of Learning”) designed to prepare faculty and students for working in proximity to Indigenous communities. This would also be an opportunity to engage with Indigenous organizations on campus for guidance and perhaps to co-host the event. Such an event or a more formal short course would provide the training needed for

compliance with Article 9.8. Canadian universities require that their members receive basic training in other areas (e.g., first aid, fire arms safety, etc.) before embarking on northern field campaigns, and so an additional training requirement in the context of the overall preparation of researchers and students seems reasonable.

In the case of Laurier, the response from senior administrators to the suggestion that their faculty and students be trained on how to interact with Indigenous communities prior to embarking on their field research has not yet been positive. The main reason provided is that faculty cannot be forced to take such training. Without a clear linkage to liability as in the case of first aid and firearms safety training, there is little incentive for universities to provide and require such training. Given that their partnership with the GNWT was renewed, Laurier's presence in the NWT will continue to grow in the coming years, and as a result, the contact of Laurier's faculty, staff, and students with Indigenous communities will also increase. In this context, the cost of not providing the training for compliance with [Chapter 9](#) could very likely outweigh the cost of providing it. One obstacle to progress is that [Chapter 9](#) of the TCPS has not been well communicated with researchers. Researchers do not know much about it because they are not required to comply. [Chapter 9](#) is often seen as providing guidelines only. Indigenous communities are also largely unaware of these guidelines and so are not likely to ask researchers who propose to operate on their lands, what steps they have taken to comply with [Chapter 9](#). On a positive note, the new emphasis of the Tri-Council on Equality, Diversity, and Inclusion (EDI) may provide a new incentive for universities to provide or even require training in relation to [Chapter 9](#). From Laurier's perspective, such steps would help to build linkages with communities and, therefore, advance and build interest in the partnership.

## Career-long collaborations

If the list of collaborators of a researcher does not include members of local Indigenous communities, then that list is incomplete. Without such collaborators, researchers are challenged to understand the cultural differences between them and Indigenous community members, a circumstance that hinders Indigenous community participation in research activities and in the activities of the associated research networks and partnerships. As a starting point, researchers (and university administrators directing the partnership) should learn whose land they are on and the history of the inhabitants. It is also important to realize that how researchers see the land and how it might be changing, is likely very different from how community members see it. For example, researchers become familiar with specific aspects of a particular location for the relatively short period of their study, while for a community member that same location might have a significance that spans over an inter-generational time frame. The conception of time and how it relates to knowledge can also be very different between researchers and community members. For example, the notion that journal articles published more than 10 years ago are "old" contrasts sharply with the reverence for the knowledge provided by elders of Indigenous communities. The latter is not seen as old but as "enduring."

The need for community engagement is not restricted to any particular academic discipline, but is a responsibility of all disciplines, including the biophysical sciences. Outside the social sciences, very few researchers are trained on community engagement practices,

such as formal interviews. At the SCRS, community members and researchers have worked side by side for decades, and over this time a great deal of knowledge and ideas have been exchanged informally through a gradual process of building trust and ultimately career-long collaborations the outcome of which has produced enduring two-way knowledge flows of a quality unattainable through formal interviews between strangers. However, the common approaches to community engagement taken by universities are not amenable to the development of informal, long-term collaborations. Universities emphasize training on written and verbal communication and researchers are expected to generate new knowledge within their academic field and to disseminate it, mainly through peer-reviewed publications and conference presentations. The intention is to facilitate knowledge mobilization from universities (knowledge producers) to end-user communities. This approach nurtures effective communicators, but not necessarily good listeners, and as such produces mainly a one-way flow of knowledge. Listening is not just waiting for a turn to speak. It is a skill that requires much mental energy and concentration, and developing this skill is critical for effective community engagement. University personnel should also appreciate that their knowledge development and dissemination priorities and goals might not be particularly meaningful to community members. For example, a major research network currently operating in the North claims on its website to be “the largest and most-cited freshwater research program in the world.” As important as the number of citations is to the careers of individual researchers and to the funding prospects of research networks, it is recommended that northern research programs at least balance such statements with others that respectfully reach out to Indigenous communities, validate their existing knowledge, recognize their knowledge needs, and encourage collaboration.

### Building alliances

Community outreach initiatives involving researchers and Indigenous communities have historically been event based, including public events in which research results are presented or a type of training is provided. A new direction is needed, one based on sustained, direct collaboration among knowledge producers, mobilizers and end-users, involving universities, government agencies, and Indigenous communities driven by the generation of new knowledge and methods of mutual interest and need. This approach is a clear departure from traditional outreach methods since the focus must shift from discrete events characterized by a one-way (researcher to community member) information flow, to career-long collaborations based on two-way information flows involving complementary research, educational, and other community engagement initiatives all focused on the co-development of a *knowledge foundation*. As an example, the growing DFN-SCRS collaboration is a unique fusion of scientific and Indigenous knowledge, and recognizes that Indigenous communities are especially linked to the land which they rely on for food and water and for their spiritual and cultural well-being. This collaboration has nurtured long-term and trusting relationships that transfer directly to new research opportunities of mutual interest as they become available. Over the long term, such alliances are uniquely positioned to generate a holistic understanding (i.e., informed by both Indigenous knowledge and western science) of how climate warming is changing the environment and the health, well-being, livelihoods, and economic activities

of its inhabitants, and how human use of the land can affect these changes, both positively and negatively. Such alliances are critical to ensuring that the human experiences, including those of the communities most affected, are infused into research directions, results, and solutions.

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