



Northern Research
Leadership
and **Equity**

Executive Summary

Expert Panel on the Future of Arctic
and Northern Research in Canada



CCA | CAC

Executive Summary

It has been said that there were times before night and day. Few things moved the Land's Strength more surely than a song. But what if song battled against song? This was how night and day came to be.¹

The North is home to many peoples—Indigenous and non-Indigenous—yet Arctic and Northern research has long been centred on Southern voices, needs, priorities, and institutions. As a result of longstanding Southern influences, there are numerous systemic challenges that have gone unaddressed and continue to impact Arctic and Northern research in Canada. Through the explicit elevation of Northern perspectives—in particular, Arctic and Northern Indigenous Peoples' perspectives—the Expert Panel on the Future of Arctic and Northern Research in Canada (hereafter, “the Panel”) sought to provide guidance on how to address these complex challenges and create a path forward for transformational change.

Using the perspectives of Raven and Wolf²—central figures in many Northern Indigenous knowledge systems—as well as the *United Nations Declaration on the Rights of Indigenous Peoples* (UNDRIP) and Canada's Truth and Reconciliation Commission (TRC), the Panel orients the report around the affirmation of Indigenous rights (including the right to self-determination) and the responsibilities associated with upholding these rights. Throughout the report, the Panel returns to the metaphor of the *community fire* and *that of being on the Land*, illustrating ways in which diverse peoples and perspectives can gather respectfully to create ethical and equitable space.

- 1 Excerpts throughout the executive summary are reproduced with permission from “The Battle of Day and Night” in *How Things Came to Be: Inuit Stories of Creation* (Qitsualik-Tinsley & Qitsualik-Tinsley, 2015). This text is used throughout the report as a narrative touchstone that serves as a reminder about the importance of balance and reciprocity among all things.
- 2 Raven is a central feature in many Inuit narratives, while many Northern First Nations communities share narratives of similar import centred on the common crow and wolf. The moiety system of southern Yukon, for example, uses Crow and Wolf to recognize kinship and relational connections with and beyond blood relationships. Stories of one cannot be represented without the other, and both moieties of Crow and Wolf are required for a holistic understanding of the surroundings.

Doing Research in a Good Way

And so it went, with bird against beast against bird. Will and words began to flow and intertwine, like currents struggling over the course of a river.

The Panel was charged with envisioning an Arctic and Northern research system that is inclusive, collaborative, and effective.³ In the Panel's view, this means that the entire research process itself, including the actions and behaviours of individuals and institutions (at all levels) conducting research in the North, must be carried out *in a good way*—that is, ethically and respectfully. Doing research in a good way involves realizing the rights affirmed by UNDRIP and the Calls to Action outlined in the final report of the TRC. To do research in a good way is to acknowledge that colonialism has long existed in the systems and structures of what is now known as Canada, as well as the fact that these realities persist today. It is to respect the natural laws of equality and interdependence, and to approach all research activities and interactions, from beginning to end, with a sense of responsibility, reciprocity, and respect. This includes balancing the relationship between Indigenous and Western knowledge systems in appropriate, context-dependent ways.

Elements and Avenues of Transformational Change

Raven chanted: "Light-light-light! Let-it-be-day! Light-light-light!"

Greater inclusivity and collaboration in Arctic and Northern research will only be achieved through positive and ethical transformation. The Panel identified four key elements necessary for ensuring that Arctic and Northern research in Canada is inclusive, collaborative, and, most importantly, ethical—these are essential to achieving an effective research system (Figure 1). First, the Panel believes research in Canada must be *just* and thereby conducted consistent with the right to self-determination of Indigenous Peoples. Second, inclusivity and effectiveness in research require that the system provide *cultural security* for Indigenous knowledge systems and any related data, rooted deeply in Indigenous Peoples' distinct status, rights, and roles. Third, all aspects of Arctic and Northern research in Canada, including processes and outputs, must also be *accessible*. And finally, research must be based in *accountability* and rooted in responsibility and reciprocity. These four elements, when applied to the Arctic and Northern research system in Canada, affirm and uphold the existence and legitimacy of Indigenous knowledge systems; however, careful thought and application are needed to meaningfully give space to ethical and equitable research practices.

3 ArcticNet, with the support of over 40 organizations, asked the CCA to convene an expert panel tasked with addressing the following question: *Based on assessment of current knowledge and evidence, what are the key foundational elements to create an inclusive, collaborative, effective, and world-class Arctic and Northern science system in Canada?*

The Panel notes that transformational change entails implementing and supporting the above elements. Avenues for transformational change represent the ways in which justice, cultural security, accessibility, and accountability can be actualized. The Panel identified two main avenues that can light the fire of sustained change in an ethical and equitable research system (Figure 1). The first avenue for change is shifting the *influence* related to decision-making from the South to the North. Without Northern Indigenous leadership in research, any changes achieved will remain superficial. However, this shift in influence must be accompanied by an increase in human, financial, and infrastructural *capacity* to equitably transform—and sustain—the Arctic and Northern research system. In this understanding, *capacity* refers to both the needs identified by Indigenous communities themselves as well as the capacity of non-Indigenous people to respect and recognize Indigenous rights and ethically engage with Indigenous Peoples and their knowledge systems.

The elements of transformational change identified by the Panel are the building blocks, or kindling, of the community fire. Without kindling, the fire cannot light. However, kindling is insufficient in isolation. The fire must be lit in a way that respects both the fire itself and those who gather around it.

Fuelling the Fire in a Good Way: Funding

I like eating, too, you know. And I miss half the things that fall dead around here, because it's so dim. Besides, don't you find it a bit ... depressing?

Funding is a central, often primary, influence in all phases of the research process. The priorities set by funders affect who gets to conduct research, what type of research is undertaken, and what the outputs of research need to be. However, Canada's current funding system, which relies heavily on the publicly funded Tri-Agencies, is largely grounded in (and thus prioritizes) Western knowledge systems. In the Panel's view, a long-term vision for just and ethical Arctic and Northern research is one that expands access, improves coordination among different research entities and funders, reduces overlap, and enhances accountability to Northerners. Within existing funding structures, this includes adjusting eligibility criteria to promote inclusivity and enable strong partnerships. However, greater Indigenous governance over research is also essential. Specialized funding streams and transdisciplinary or collaborative approaches can address critical Indigenous research priorities and support Indigenous-led research. Such shifts in influence would better prioritize social accountability in research, which, in the view of the Panel, would enhance the collaborative nature of Arctic and Northern research in Canada.

CONCEPTUAL FRAMEWORK

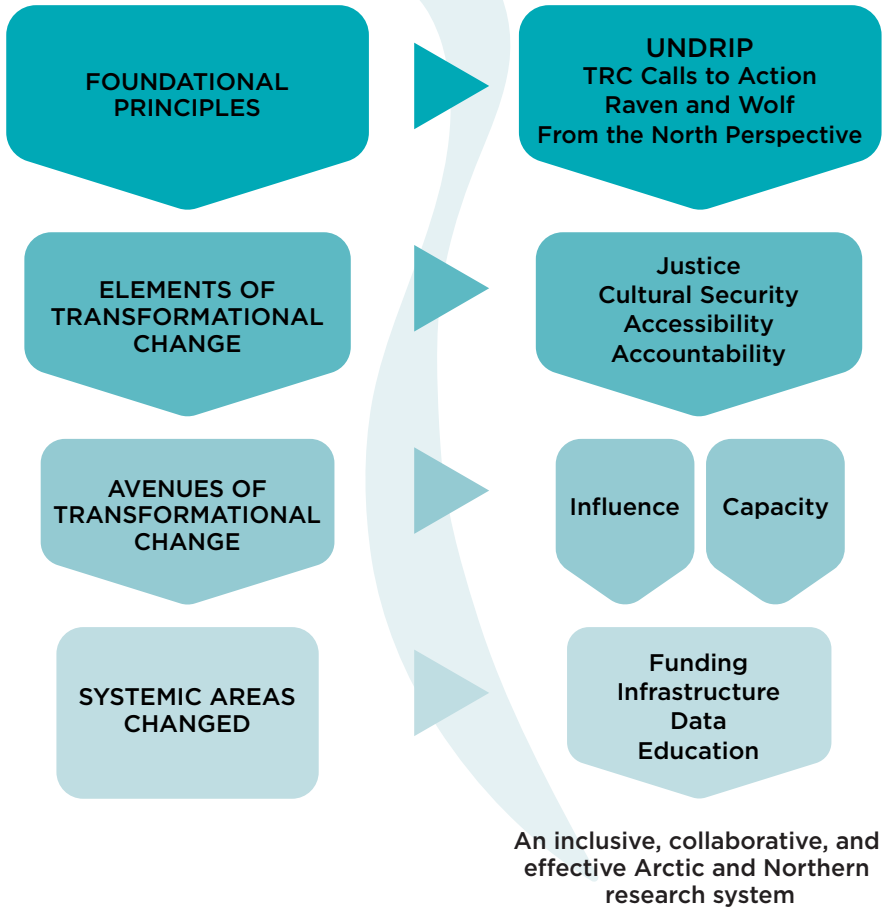


Figure 1 Report Approach

Building on a foundation rooted in the rights affirmed in UNDRIP and the TRC’s Calls to Action—and taking a Northern perspective guided by Raven and Wolf—the report applies the four elements of transformational change (justice, cultural security, accountability, and accessibility) by way of avenues for transformational change (influence and capacity) to four key aspects of the Arctic and Northern research system: funding, infrastructure, data, and education. In so doing, the report works through the transformational changes that, if undertaken, support a truly inclusive, collaborative, and effective Arctic and Northern research system in Canada.

Further, the Panel notes that increasing the total funding spent on Arctic and Northern research, as well as increasing Northern research institutions' access to funding, is required for Canada to be globally competitive. This increase relies on better and more consistent accounting of all funding sources, tailored to the unique Arctic and Northern research context. Changes that would support a more effective and collaborative system include streamlined and simplified funding applications; greater flexibility in the use of funds; and dedicated, sustained funds for training and capacity-building, particularly regarding ongoing research projects and monitoring efforts. Such changes would also reduce research fatigue in Northern communities and improve responsible research outcomes. Moreover, coherence and transparency in funding allocations enable the effective and equitable distribution of research funds. Improving publicly accessible tracking and monitoring of data (regarding both research outcomes and spending) would support a more fulsome understanding of the local economic and social impacts of research as it relates to the Indigenous and non-Indigenous people living in Arctic and Northern communities.

The Gathering Places: Infrastructure

Raven said, "I'm just trying to touch things up a bit."

The physical structures within which we gather to do research, as well as the services that make such gathering possible, are foundational elements of effective and ethical research systems. This includes aspects that often go overlooked when supporting effective and ethical research, such as community housing and internet connectivity.

Synergizing available research infrastructure across disciplines and jurisdictions can increase Arctic and Northern research capacity in Canada. Currently, disciplinary divides result in significant barriers to accessing the infrastructure needed to engage in effective research that addresses the needs and priorities of Northern communities. Support for multidisciplinary programs can provide research capacity beyond the scope of individual researchers and supports collaborative, interdisciplinary, and potentially cross-cultural research outcomes and benefits. However, a majority of research stations in the North are not owned or operated by Northern institutions or Indigenous communities, limiting the influence of Northern voices on the research being carried out.

The Panel notes that Northern, Indigenous-led organizations provide critical guidance, support, and research services on topics that are most meaningful to Indigenous Peoples; however, dedicated resources are required to maintain this essential function. This extends to post-secondary institutions in the North, which are leading the way in engagement and investment for inclusive,

collaborative, equitable, and ethical Arctic and Northern research in Canada. Greater support for Northern post-secondary institutions, and stronger partnerships between them and outside researchers (Southern and foreign) working in the North, may provide the groundwork for long-term, effective, and meaningful engagement between the research community and Northern Indigenous Peoples.

Another critical component of infrastructure identified by the Panel relates to the processes of research ethics review and approvals, which do not adequately recognize the rights and priorities of Indigenous Peoples. Furthermore, the current system of ethics review and license/permit approvals in Arctic and Northern research is disjointed and overly complex, resulting in duplication of efforts and accessibility barriers—especially for Northern-based researchers. Shifting the responsibility of ethics review and research approvals to Indigenous Peoples or their institutions can reduce some of these barriers while simultaneously ensuring self-determination and culturally appropriate review. Increased support and capacity-building by and for researchers are also needed for effective review and engagement by Indigenous organizations to be fully realized.

Many structures and services that support effective research are not sufficiently resourced in the North. For example, community infrastructure—which includes housing, professional spaces, telecommunications, road and air travel networks, and physical and mental health services—does not meet the needs of Northerners. This infrastructure is essential for an effective research system. Improved access to such structures and services would directly support the self-determination of Northern Indigenous Peoples, improve opportunities for meaningful collaboration, and, as a result, strengthen the overall research capacity of the North.

Sharing Knowledges: Data

Such tasty treasures were hidden under rock piles. Though the world was a lightless place, it was no challenge for Fox to sniff things out. Under [their] blanket of shadow, Fox raided at will.

A just research system recognizes Indigenous Peoples' rights to own and control their data and knowledges. There are ongoing efforts to solidify Indigenous data sovereignty and data stewardship, but there has not been adequate support and capacity building to enable them to reach their full potential. One critical component of Indigenous data sovereignty is repatriation, which, in the Panel's view, is required to fully respect and uphold the rights of Indigenous Peoples. Additional areas for support include access and benefit sharing policies and data-sharing and ownership agreements, as the nature of Indigenous knowledge systems demands unique protections to avoid misappropriation and harm. Such agreements can ensure accountability and appropriate access to data.

Furthermore, strengthening data-sharing and access and benefit sharing policies is one opportunity for the federal government to enhance Canada's leadership in Arctic and Northern research.

Data accessibility and accountability are also critical considerations for inclusive and collaborative research. Supporting Indigenous Peoples' rights to own and control their data requires that information is shared in accessible formats, including being translated into Indigenous languages. Furthermore, ongoing communication of research results enables communities and researchers to determine the best and most appropriate approaches for data sharing. However, the Panel notes that improving access to data cannot come at the cost of cultural security. Data stewardship arrangements can ensure that accountability to Indigenous Peoples is maintained, so that their ongoing access to data is supported alongside appropriate oversight. At the institutional level, improved interoperability and cohesiveness of Arctic and Northern data would increase accessibility; however, this would rely on the support of research organizations through improved internal processes and terms of use.

Carrying the Embers: Education

An idle word. An irresponsible thought. A wish. A dream. These could alter the world.

The legacy of colonialism in Canada, including the intergenerational impact of residential schools, is the foremost barrier to educational attainment in the North. Improved educational accountability beginning at the primary and secondary levels is vital to challenge this legacy. The Panel believes that an accountable education system is one that is fully inclusive and recognizes and affirms all forms of learning. This includes Indigenous-led accredited education programs that can protect Indigenous knowledge systems while advancing educational attainment and capacity in the North. At the post-secondary level, effective and accountable program development includes community input and the establishment of, and support for, education that is accessible, inspiring, and culturally relevant.

The Panel's view of educational accountability also extends to Southern and international institutions and researchers. Before engaging in Arctic and Northern research, it is imperative that all researchers take it upon themselves to develop an understanding of the histories, realities, and contexts of Indigenous Peoples in the Arctic and North, with particular focus on those that may be directly or indirectly impacted by proposed research.

Tending the Fire

So light was given permanence in the world. Fox's power has left its mark, though. When light grows weary, and the Strength from the Raven wavers, the world falls back into that darkness of old. Then there is the dark of Winter. Then comes the long night.

When the elements of transformational change are applied across funding, infrastructure, data, and education by everyone involved in the Arctic and Northern research system (see the actionable responsibilities summarized by the Panel in the Responsibilities Table), the community fire can be lit. Once the fire is alight, care and attention cannot be withdrawn—it must be tended and continually kept. Similarly, an ethical and equitable research system relies on ongoing care, a shared responsibility that extends to all people and institutions involved in Arctic and Northern research. Respect, reciprocity, and responsibility are central to all activities and processes at both the institutional and individual levels; transformational change means that research is done by all in a good way.

The Panel recognizes that the commitments necessary to sustain an inclusive and collaborative Arctic and Northern research system are not easy, especially in the face of pervasive structural and systemic barriers. Yet, in the Panel's experience, transformational change that is grounded in the perspectives, priorities, and needs of the North is essential and worth the inevitable struggle. When people and institutions tend to the fire and keep it burning over generations, we each contribute to a space of justice, cultural security, accessibility, and accountability. The community fire, at its core, is about so much more than research—it is about being recognized and belonging at the fire in the first place.

Responsibilities Table

Responsibilities of Different Actors (listed alphabetically) to achieve an Inclusive, Collaborative, and Effective Arctic and Northern Research System

All Actors

- Creating a cohesive, long-term vision for Arctic and Northern research to enable just and effective investment.
- Affirming and respecting Indigenous knowledge systems and leadership to ensure balance among knowledge systems in Northern research.
- Affirming and supporting diverse educational approaches, including on-the-Land learning and oral information sharing.

Federal and/or Territorial/Provincial Governments

- Ensuring compliance with existing guidance on how to carry out research projects in ways that appropriately consult, collaborate with, and benefit Indigenous Peoples.
- Shifting influence over review and approval processes to Indigenous Peoples and their institutions.
- Providing support to fill the human, financial, and infrastructural research capacity needs identified by Indigenous Peoples.
- Providing ongoing support to enable Northern Indigenous-led governance and organizations to continue providing critical guidance, support, and research services.
- Supporting the social, cultural, and health services needed for an inclusive and collaborative Arctic and Northern research system.
- Increasing access to reliable internet services and transportation networks in the North, which support equity in research.
- Working to advance intellectual property law and access and benefit sharing agreements with Indigenous Peoples.
- Supporting repatriation, a critical component of Indigenous data sovereignty required to uphold the rights of Indigenous Peoples.
- Supporting the connection of available research and laboratory infrastructure in the North across disciplines and jurisdictions.
- Shifting influence to enable Indigenous-led education systems in the North that include the centring of Indigenous knowledge systems.
- Ensuring educational accountability to Northern Indigenous Peoples at the primary, secondary, and post-secondary levels.
- Shifting control over research stations in the North to Indigenous communities and organizations.

Funders

- Developing flexible funding programs that are tailored to the Northern context, allowing for the time and resources needed for relationship-building.
- Expanding eligibility criteria to researchers outside the academic sphere to promote Indigenous-led and culturally safe research.
- Ensuring that Indigenous Peoples hold influence over research funding decisions that concern their communities and their Lands.

Northern Research Leadership and Equity

- Having specialized funding streams that support Indigenous-led research, including capacity-building, in an accessible and culturally secure way.
- Increasing funding opportunities for Northern post-secondary institutions and research organizations.
- Supporting transdisciplinary and collaborative approaches to address critical Indigenous research priorities.
- Streamlining and simplifying funding applications to reduce the burden on individuals and communities.
- Supporting coherence and transparency of research funding sources to enable effective and equitable distribution of resources.
- Ensuring there is ongoing monitoring of the economic and social outcomes of research to promote accountability.
- Prioritizing social accountability in research processes, outcomes, and evaluations to reflect the collaborative nature of Arctic and Northern research.
- Ensuring all researchers (domestic and international) comply with existing guidance and ethical protocols on how to carry out research projects in ways that appropriately consult, collaborate with, and benefit Indigenous Peoples.
- Prioritizing partnerships with international funders that comply with existing guidance on carrying out research projects with Indigenous Peoples.
- Offering ongoing support to enable Northern and/or Indigenous-led organizations to continue providing critical leadership, guidance, support, and research services.

Indigenous Peoples, Governments, and Organizations

- Developing and communicating local and regional research priorities.
- Continuing to develop and implement culturally appropriate research review and ethics approval processes where desired.
- Continuing to expand and share critical guidance, support, and research services on topics that are most meaningful to Indigenous Peoples.
- Identifying the human, financial, and infrastructural research capacity needs to enable culturally appropriate research and ethics approval.
- Engaging in the development of data-sharing and ownership agreements, where deemed appropriate.
- Continuing to develop and advocate for Indigenous-led education programs that centre Indigenous knowledge systems.

Post-secondary and Research Institutions

- Institutionalizing, normalizing, and ensuring compliance with existing guidance on how to carry out research projects in ways that appropriately consult, collaborate with, and benefit Indigenous Peoples.
- Participating in multi- and transdisciplinary projects to support collaborative and meaningful research.
- Participating in international partnerships only when there is compliance with Canadian, regional, and local protocols on ethical, responsible, and accountable research with Indigenous Peoples on all sides.
- Shifting influence over ethics review and research approvals to Indigenous Peoples or their institutions.

- Finding ways to connect available research and laboratory infrastructure in the North across disciplines and jurisdictions.
- Supporting data sovereignty of Indigenous Peoples through bi-directional capacity-building with researchers and academic institutions.
- Improving interoperability of Arctic and Northern data while protecting Indigenous cultural security.
- Supporting Indigenous data sovereignty in the North through internal processes and terms of use.
- Supporting the ongoing communication of research processes and results to impacted communities in accessible ways.
- Supporting repatriation, a critical component of Indigenous data sovereignty required to uphold the rights of Indigenous Peoples.
- Supporting education about the histories, Peoples, and priorities of the North to advance equitable relationships in the research system and enable researchers to ensure research is done ethically.
- Establishing and supporting post-secondary education that is accessible, inspiring, and culturally relevant.
- Shifting control over research stations in the North to Indigenous communities and organizations.

Researchers—Based in Canada

- Seeking an education about the histories, Peoples, and priorities of the North to advance equitable relationships and conduct research ethically.
- Seeking out cross- and transdisciplinary partnerships to support collaborative and meaningful research.
- Improving interoperability of Arctic and Northern data to increase accessibility while protecting Indigenous cultural security.
- Engaging in ongoing communication of research results to determine the optimal avenues for accessible data sharing.
- Sharing data in accessible formats to support Indigenous Peoples' rights to own and control their own data.
- Building data-sharing and ownership agreements into research programs to maintain accountability and support Indigenous Peoples' rights to own and control their data.
- Increasing personal capacity to respect and recognize Indigenous rights and ethically engage with Indigenous Peoples and their knowledge systems.

Researchers—International

- Increasing personal capacity to respect and recognize Indigenous rights, and seek out an education about the histories, Peoples, and priorities of the North.
- Seeking out meaningful partnerships with Indigenous Peoples and communities when engaging in Arctic and Northern research.
- Ensuring research activities comply with Canadian ethics review and research licensing processes.
- Following existing guidance on how to carry out research projects in ways that appropriately consult, collaborate with, and benefit Indigenous Peoples.
- Engaging in other responsibilities applicable to researchers based in Canada.