

THE AGREEMENT ON ENHANCING INTERNATIONAL ARCTIC SCIENTIFIC COOPERATION: CONSIDERATIONS FOR CANADA'S ROLE

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Scientific cooperation in the Arctic

Scientific cooperation has been, and continues to be, a defining feature of the political landscape in the circumpolar arctic. In the late 1980s, arctic states began pursuing science as a means of fostering productive relationships in this globally significant region. The creation of the International Arctic Science Committee in 1990, as well as the comprehensive, collaborative efforts to develop the 1991 Arctic Environmental Protection Strategy, were early signs of the unifying potential of science at the northern reaches of the globe. This trend continued into the 21st Century, with science being an important driver in the development and expansion of arctic governance structures through the Arctic Council (Murray, 2014).

Given the complexity and interconnectedness of many of the issues the Arctic is facing, international cooperation is crucial. Arctic states and, increasingly, non-arctic states, must refine their ability to work together, leverage available expertise, and solve problems like climate change

impacts collectively (Berkman et al., 2017). The Arctic Council's recent *Agreement on Enhancing International Arctic Scientific Cooperation* (the Agreement) reaffirms the importance of science during an era of unprecedented change in the polar regions. Inclusive and timely research on environmental protection, resource extraction, and maritime security in the Arctic will lead to effective governance on these issues. Notably, knowledge production in these areas may influence broader policy agendas within the Arctic Council (Binder, 2016). Through the Agreement, science can be used as a tool to support collective decision-making processes amongst the diverse actors represented at the Arctic Council.

An evidence-based approach to policy is particularly significant in a forum like the Arctic Council, where Indigenous knowledge and local knowledge are needed to ensure that research activities are informed by, and relevant to, arctic residents. Indigenous knowledge and local

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knowledge are bodies of knowledge “generated through cultural practices, lived experiences including extensive and multi-generational observations, lessons and skills” (Arctic Council Indigenous Peoples’ Secretariat, 2019). This knowledge is foundational for understanding the human and environmental aspects of the Arctic, as well as applying this understanding to a global context. Since the formation of circumpolar research networks, northern Indigenous peoples have consistently advocated for the inclusion of Indigenous knowledge in arctic science—they continue to do so today as Permanent Participants at the Arctic Council. These efforts reinforce the need for scientists to work in collaboration with Indigenous knowledge holders, and for arctic decision making to include numerous and varied voices.

The Agreement on Enhancing International Arctic Scientific Cooperation

The process to formalize and enhance scientific collaboration in the circumpolar arctic was initiated in 2013 during Canada’s most recent chairmanship of the Arctic Council. Between 2013 and 2017, a Scientific Cooperation Task Force, which included Permanent Participants and scientific experts, identified current barriers to arctic science and developed a process to support science-based cooperation between arctic states. The efforts of this Task Force led to the signing of the Agreement at the Arctic Council Ministerial in May 2017 in Fairbanks, Alaska. At this time, Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, and the United States became Parties of the Agreement. Following its signing and ratification by the eight arctic states, the Agreement came into force in May 2018.

The Agreement is subject to existing laws, regulations, procedures, and policies, including the existing rights of Indigenous peoples. It does not set out to change any existing domestic legislation or regulations. Instead, it commits to facilitating scientific activities in the Arctic and, in

turn, improving the effectiveness and efficiency of knowledge production in the region. To fulfil their commitments under the Agreement, arctic states must address the following within their respective northern science networks:

- **Access**—support international collaboration through access to research areas, infrastructure and facilities, and data.
- **Education**—provide opportunities for students, at all levels of education, to gain experience and expertise in arctic science.
- **Integration**—enable a variety of Western, Indigenous, and Traditional knowledge systems to contribute to arctic science.

The Agreement in the Canadian context

Canada’s North has significant geo-political and environmental variations that contribute to a vibrant and evolving research landscape. The North is also home to over 100,000 residents, including Indigenous peoples. Together, these factors require individual researchers and larger research networks to be aware of, and responsive to, the needs of northern and Indigenous residents. As the polar regions continue to be central to global discussions on climate change research and mitigation strategies, there are many opportunities for international researchers to collaborate on research initiatives in areas of shared interest with Canada and Northerners. However, Canada’s North presents considerable challenges for foreign researchers—from navigating sub-national jurisdictions and regional requirements, to preparing for extreme environmental conditions and remote locations. This is where the implementation of the Agreement can play a useful role.

In Canada, the Agreement will be implemented in the Yukon, Northwest Territories, Nunavut, Nunavik (northern Quebec), Nunatsiavut (northern Labrador), and the adjacent marine areas. Polar Knowledge Canada (POLAR), is responsible for implementing the Agreement across relevant

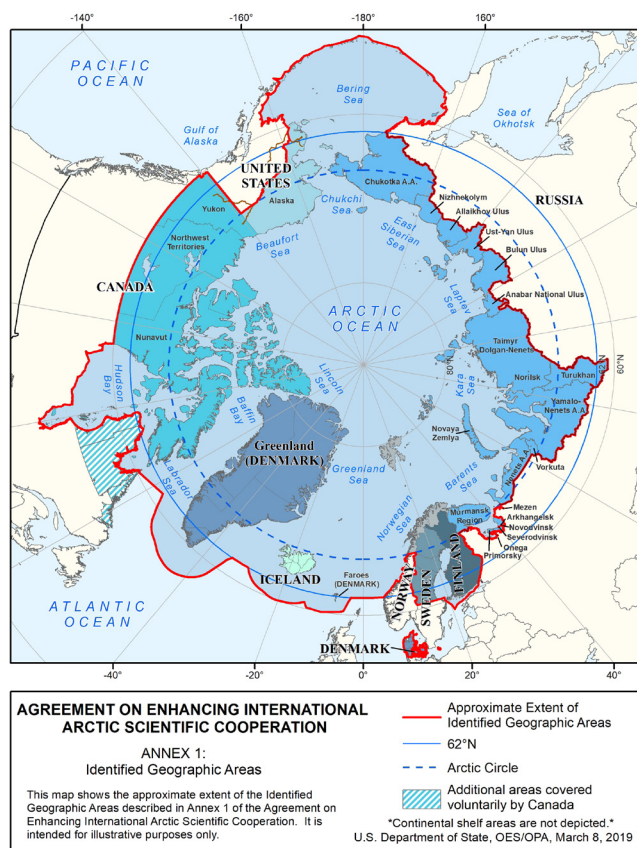


Figure 1: Identified geographic areas as described in Annex 1 of the Agreement on Enhancing International Arctic Scientific Cooperation.

terrestrial research areas in Canada, while Global Affairs Canada is responsible for scientific marine research requests from foreign state agencies.

Given how expansive and diverse Canada's North is, POLAR is working to facilitate scientific cooperation in the region by providing a platform to consolidate and communicate information for researchers. Throughout 2017 and 2018, engagement activities were conducted with federal, territorial, regional, and Indigenous governments, as well as northern research networks. The purpose was to gain insight into regional research authorities and processes, and to seek input on areas where coordination is needed. This work also considered engagement feedback received during the development of the Government of Canada's Arctic and Northern Policy Framework, as well as POLAR's Science and Technology Framework and Strategic Plan. These engagement efforts involved travelling to the

northern regions in Canada, inviting comments through written submissions, and conducting targeted outreach through email communications.

Canadian priorities for northern research

So, what was heard? During these engagement sessions, northern collaborators shared information and feedback about their needs and desires for the future of arctic research in Canada. Some general highlights include:

- Respect for Indigenous knowledge and local requirement:** Continued efforts are needed to ensure researchers and governments recognize, and fully incorporate, Indigenous knowledge into research and decision making. In addition, more needs to be done to ensure permit processes and reporting requirements are followed. Improvements in these areas are needed for both domestic and international researchers.
- Engaging with local communities:** Through the National Inuit Strategy on Research, Inuit collaborators, such as Inuit Tapiriit Kanatami, clearly expressed their vision for Inuit self-determination and governance in arctic research. Northerners and Indigenous collaborators want to play a greater leadership role in research when visiting researchers come to Canada's North. Communities must be engaged throughout the process. This includes engaging communities on what is researched, how research is conducted, and what findings have been made. At the same time, collaborators highlighted the limited capacity of northern and Indigenous communities and organizations, which currently presents a barrier to their engagement with, and leadership in, research projects.
- Research Coordination:** Consistent with the experiences of other countries in arctic research, engagement with collaborators revealed there is a need for greater coordination, management, and sharing of research. More promotion of international research partnerships and opportunities to collaborate is also needed.

Support for enhanced northern research

Based on this feedback, POLAR's approach to implementing the Agreement in Canada involves providing resources to inform researchers about regional procedures and best practices in northern research. It also involves facilitating the coordination of research projects in Canada's North. These online resources will include:

- a high-level summary of the 'steps' required to conduct research in a timely and respectful manner to be used as a guiding tool;
- a web page that provides detailed information about processes, considerations, and contacts for northern research; and,
- links to region-specific resources for further reading and information.

Notably, these resources will be relevant to, and promoted within, both international and domestic research networks.

By gathering and consolidating information about research in Canada's North, POLAR aims to ensure that researchers are connecting with the appropriate authorities and research networks. This approach recognizes that sub-national bodies may be better placed to address the needs of visiting researchers, and that POLAR does not propose to replace them in their work. Instead, in implementing the Agreement, POLAR intends to improve communication within these networks, make the information that researchers need easily accessible, and offer help and guidance when necessary.

In collaboration with Indigenous and northern organizations, POLAR is also working to address the challenges that enhanced research activity may present for northern communities. Additional resources and capacity building measures are required to ensure that collaborators in the North can respond to and participate in research activities in their regions, and that funding is set aside to

support northern organizations and communities in this way. These efforts are essential to supporting northern leadership in international scientific collaboration.

Next steps

The Arctic Science Agreement requires the Parties to meet within one year of the Agreement entering into force. In March 2019, national representatives from the eight arctic states met to discuss the successes and barriers to their domestic implementation strategies to date. This forum was the first opportunity to develop new post-ratification communication and coordination mechanisms between the Parties.

Domestically, work will continue to strengthen the strategies and resources for Canada's implementation strategy. These tools must remain flexible to accommodate continued growth and change within the northern research community. POLAR will continue to stay connected with key collaborators and stakeholders across Canada's North to ensure that resources are up to date and in line with best practices.

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