

Northern Lights

A WAKE-UP CALL FOR THE FUTURE OF CANADA



REPORT OF THE SPECIAL SENATE COMMITTEE ON THE ARCTIC

The Honourable Dennis Glen Patterson, Chair
The Honourable Patricia Bovey, Deputy Chair

JUNE 2019



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CANADA

FRONT COVER: Roberta Bondar, *Meltwater Quttinirpaaq National Park, Nunavut, 1999 & 2014*, Chromira Print, 32 x 32 in., Image courtesy of the artist.

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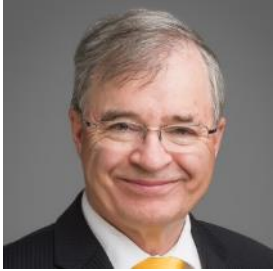
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THE COMMITTEE MEMBERSHIP



The Honourable
Dennis Glen Patterson
Chair



The Honourable
Patricia Bovey
Deputy Chair

The Honourable Senators



Margaret Dawn
Anderson



Mary Coyle



Donna Dasko



Joseph A. Day



Nicole Eaton



Richard Neufeld



Victor Oh

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Ex-officio members of the committee:

The Honourable Peter Harder, P.C. (or Diane Bellemare), or (Grant Mitchell)

The Honourable Larry W. Smith (or Yonah Martin)

The Honourable Yuen Pau Woo (or Raymonde Saint-Germain)

The Honourable Joseph A. Day (or Terry M. Mercer)

The committee would like to recognize the following Senators who are no longer serving members of the committee whose contribution to the study was invaluable:

The Honourable Senators: Yvonne Boyer, Rosa Galvez, Marilou McPhedran, Kim Pate and Charlie Watt (retired).

Other Senators who have participated in the study:

The Honourable Senators: Gwen Boniface, Colin Deacon, Marc Gold, Mobina Jaffer, Mary Jane McCallum, Paul E. McIntyre and Carolyn Stewart Olsen.

Parliamentary Information and Research Service, Library of Parliament:

Sara Fryer and Thai Nguyen, Analysts

Senate Committees Directorate:

Maxime Fortin, Committee Clerk

Lynn Gordon, Committee Clerk

Debbie Larocque, Administrative Assistant

ORDER OF REFERENCE

Extract from the *Journals of the Senate*, Wednesday, September 27, 2017:

Resuming debate on the motion of the Honourable Senator Watt, seconded by the Honourable Senator Cordy:

That a Special Committee on the Arctic be appointed to consider the significant and rapid changes to the Arctic, and impacts on original inhabitants;

That the committee be composed of ten members, to be nominated by the Committee of Selection, and that five members constitute a quorum;

That the committee have the power to send for persons, papers and records; to examine witnesses; and to publish such papers and evidence from day to day as may be ordered by the committee;

That the committee be authorized to hire outside experts;

That, notwithstanding rule 12-18(2)(b)(i), the committee have the power to sit from Monday to Friday, even though the Senate may then be adjourned for a period exceeding one week; and

That the committee be empowered to report from time to time and to submit its final report no later than December 10, 2018, and retain all powers necessary to publicize its findings until 60 days after the tabling of the final report.

After debate,

In amendment, the Honourable Senator Plett moved, seconded by the Honourable Senator Wells:

That the motion be not now adopted, but that it be amended in the second paragraph:

1. by replacing the word “ten” by the word “nine”; and
2. by replacing the word “five” by the word “four”.

The question being put on the motion in amendment, it was adopted.

The Senate resumed debate on the motion, as amended, of the Honourable Senator Watt, seconded by the Honourable Senator Cordy:

That a Special Committee on the Arctic be appointed to consider the significant and rapid changes to the Arctic, and impacts on original inhabitants;

That the committee be composed of nine members, to be nominated by the Committee of Selection, and that four members constitute a quorum;

That the committee have the power to send for persons, papers and records; to examine witnesses; and to publish such papers and evidence from day to day as may be ordered by the committee;

That the committee be authorized to hire outside experts;

That, notwithstanding rule 12-18(2)(b)(i), the committee have the power to sit from Monday to Friday, even though the Senate may then be adjourned for a period exceeding one week; and

That the committee be empowered to report from time to time and to submit its final report no later than December 10, 2018, and retain all powers necessary to publicize its findings until 60 days after the tabling of the final report.

The question being put on the motion, as amended, it was adopted.

ATTEST

Nicole Proulx
Clerk of the Senate

Extract from the *Journals of the Senate*, Thursday, November 29, 2018:

The Honourable Senator Patterson moved, seconded by the Honourable Senator MacDonald:

That, notwithstanding the order of the Senate adopted on Wednesday, September 27, 2017, the date for the final report of the Special Senate Committee on the Arctic in relation to its study on the significant and rapid changes to the Arctic, and impacts on original inhabitants be extended from December 10, 2018 to September 30, 2019.

The question being put on the motion, it was adopted.

ATTEST

Richard Denis
Clerk of the Senate

THE FUTURE IS NOW: INTRODUCTION OF THE CHAIR AND DEPUTY CHAIR

Northern Lights: A Wake-Up Call for the Future of Canada is the result of the Senate Special Committee on the Arctic's year-long study. Its title reflects the urgency resulting from a history of neglect and disregard, and the deep connection to the land and environment, and references the aurora borealis and its link to Northern people's ancestors. It underlines the plethora of future opportunities of Canada's north. The North *IS* the future of Canada in countless ways. The issues are urgent; the recommendations require immediate action.

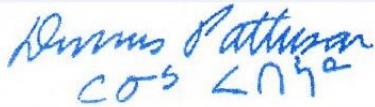
The parameters are the six themes of the government's Arctic Policy Framework (APF). Mandate letters of the Minister of Crown-Indigenous Relations and the Minister of Intergovernmental and Northern Affairs, had the stated goal to "continue to advance work on a shared Arctic Leadership model and support northern programming, governing institutions, and scientific initiatives." The APF was not released by the time of our writing. May this report assist in developing a living, comprehensive long-term Arctic policy.

The testimonies we heard, and information garnered on the committee's fact-finding mission to Canada's North, proved that multiple issues intersect, affecting the daily lives of Northerners as well as Canada's national security and international relations. Time and internet connectivity precluded an exhaustive study, but it became clear the committee should be permanent, charged with further work and monitoring the many concerning situations. These interconnecting issues include northerners' health, economy, housing, security, education, food, culture, language, communications, climate change, shipping and more. The breadth and scope of the Arctic is vast. The concerns are now covered by many government departments. We believe the continued collegial, constructive and consensus-based approach of a single, non-partisan parliamentary committee, wholly focused on the north, will be foundational in moving the APF forward.

Government policies must align with the various priorities of northerners, both Indigenous and non-Indigenous, empowering northerners to create their own programs and initiatives. The ultimate goal, in our committee's view, should be the eventual devolution of decision-making powers about northern issues to northern institutions - decisions about the North must be made in the North, for the North and by the North.


We thank former Senator Charlie Watt for his dedicated efforts to establish a Special Senate Arctic Committee. We also thank committee and office staffs, the clerks and analysts. All have contributed greatly to ensure the committee operated as efficiently as possible. We thank the artists, right holders, copyright holders and photographers, too, for permission to use their work in this report. It is an honour to present works of art by Canadian artists, these being particularly germane to the scope of the report. Finally, we would like to convey our sincere appreciation to all the witnesses who appeared before the committee and the warmth of those whom we met on tour. Your testimony and all your comments were critical to our conclusions and recommendations.

With everything we have heard and seen regarding the very serious issues the North faces and the Arctic being an essential part of Canada, we believe that the Special Senate Committee on the Arctic become a permanent Standing Committee of the Senate of Canada.



Dennis Patterson
C-5 L-17^a

Senator Dennis Patterson
Chair



Patricia E. Bovey

Senator Patricia Bovey
Deputy Chair

EXECUTIVE SUMMARY

For far too long, the Arctic and northern regions have been neglected by Canada. Crises remain unresolved and the well-being of residents, left to tackle enormous challenges on their own, has been overlooked. Arctic residents are more than up to the task of resolving these challenges and they know what needs to be done. It is essential that the Government of Canada recognize that the Arctic requires greater attention, investment and consistent support from the federal government, to complete Canada's nation-building project. The impact of federal underinvestment hits hardest on the Arctic's greatest asset, Indigenous youth. Opportunities for nation-building can no longer be missed.

As highlighted by the title of this report, *Northern Lights: A Wake-Up Call for the Future of Canada*, the Special Senate Committee on the Arctic (the committee) understands that the Arctic is Canada's future. This report is an urgent wake-up call. The committee's mandate was to study the "significant and rapid changes to the Arctic and impacts on original inhabitants."¹ As the Government of Canada prepares a new policy framework for the Arctic, this study recommends important changes for federal policy in areas such as Canada's sovereignty and safety, devolution of federal programs and services and investments in infrastructure to support the well-being and future prosperity of Arctic communities. This report, like others before it,² makes recommendations that Arctic residents have raised time and time again.

Canada's Sovereignty in the Arctic

Arctic residents keenly observed other countries' interest in the region's natural resources and the Northwest Passage. The committee recommends that the Government of Canada ensure the Canadian Arctic security and safety and assert and protect Canada's sovereignty in the Arctic. In the committee's view, actions ensuring prosperous, sustainable and safe Arctic communities are vital to enhance Canada's ability to project its Arctic foreign policy, including sovereignty in the region.

Empowering Arctic Residents

The committee heard from numerous federal departments with responsibilities related to the Arctic, often working in silos. Indigenous and territorial leaders stressed that policy, legislation and service delivery must occur in the North, by the North, for the North. The committee therefore recommends that the Government of Canada develop a strategy that: 1) empowers Arctic and northern governments to assume roles in delivering federal programs and services to its residents; and 2) devolves federal programs and services related to the Arctic and northern regions to local, territorial and Indigenous governments.

¹ Senate of Canada, [Journals](#), No. 142, 1st Session, 42nd Parliament, 27 September 2017.

² A list of parliamentary reports pertaining to the Arctic is included as an appendix.

Infrastructure Building to Face the Challenges of a Changing Arctic

With little infrastructure in many communities in the Arctic, people struggle to access water and sanitation, housing, good schools and healthcare. As the climate warms and permafrost thaws, the urgency of the Arctic's challenges come into plain view: traditional food supplies are threatened; homes are endangered by the rising seas and the ice becomes unsafe for travel.

Understanding that Arctic communities deserve better, the committee recommends that the Government of Canada: 1) complete a building code adapted to Arctic conditions and the effects of climate change; 2) implement an action plan to mitigate the effects of climate change on existing and new infrastructure, including housing; 3) take immediate measures to address the housing crisis in the Arctic by funding a complete continuum of Arctic housing; and 4) report on the effects of its investments on housing annually to local, Indigenous and territorial governments. Broadband telecommunications access in the Arctic is unavailable, poor and, where available, expensive and often unreliable. The committee agrees with witnesses that broadband access is necessary and recommends that the Government of Canada establish a broadband telecommunications action plan with dedicated funds to support fibre deployment to underserved regions in the Canadian Arctic by March 2020.

The committee strongly believes that the social, cultural and economic well-being of Arctic residents should be the cornerstone of the forthcoming federal policy framework for the Arctic and northern regions. Implementation of the recommendations put forward by this report will contribute to the effectiveness of that framework for the future of Canada.

LIST OF RECOMMENDATIONS

HEALTHY ECONOMIES TO BENEFIT THE ARCTIC

1. That the Government of Canada adopt a consistent definition of the Arctic with respect to legislation, policy directives and programs.
2. That the Government of Canada develop a strategy that: 1) empowers Arctic and northern governments to assume roles in delivering federal programs and services to its residents; and 2) devolves federal programs and services related to the Arctic and northern regions to local, territorial and Indigenous governments.
3. That the Government of Canada: 1) provide greater financial support towards the implementation of comprehensive land claims agreements, including land use planning processes and governance of regulatory boards; and 2) consult and cooperate with Indigenous and territorial governments to develop co-management regimes with respect to the Arctic offshore waters.
4. That the Government of Canada appoint a Minister of Northern Affairs in control of its own parliamentary appropriation and that this cabinet position report annually to Parliament on its activities.
5. That the Government of Canada, in partnership with Indigenous and territorial governments, establish an Arctic Infrastructure Bank to fund new infrastructure and mitigate the effects of climate change on existing infrastructure, and to ensure the funds are directed based on Arctic needs.
6. That the Government of Canada: 1) direct the National Research Council to complete a building code adapted to Arctic conditions and the effects of climate change; 2) implement an action plan to mitigate the effects of climate change on existing and new infrastructure, including housing; 3) take immediate measures to address the housing crisis in the Arctic by funding a complete continuum of Arctic housing; and 4) report on the effects of its investments on housing annually to local, Indigenous and territorial governments.
7. That the Government of Canada establish a broadband telecommunications action plan with dedicated funds to support fibre deployment to underserved regions in the Canadian Arctic by March 2020.
8. That the Government of Canada ensure Arctic and northern communities have reliable and secure forms of energy, including renewable energy and alternates to diesel based on locally identified priorities and opportunities.

9. That the Government of Canada support Indigenous and/or territorial governments to: 1) increase funding for Basic Adult Education in the Arctic; 2) ensure students can pursue studies in their Indigenous language; and 3) support the Government of Nunavut to establish a university in the Eastern Arctic.
10. That the Government of Canada, in partnership with Indigenous and territorial governments, build upon and support existing territorial education and labour force strategies based on Arctic peoples' priorities and needs, to decrease the reliance on southern workers.
11. That Employment and Social Development Canada and Innovation, Science and Economic Development Canada: 1) immediately adapt its skills and employment programs to the educational attainment and labour force realities of the Arctic; 2) with Indigenous and territorial governments, use data to better target federal investments in post-secondary education and training to Arctic peoples' priorities and the labour market to meet the needs of this generation of Arctic youth; and 3) invest in post-secondary education and training in such areas as trades, arts and conservation sectors, or other priorities as identified by northerners.

CULTURE AS A PATHWAY TO STRONG AND HEALTHY COMMUNITIES

12. That the Government of Canada, with Indigenous, territorial and local governments, take immediate measures to address the social determinants of health that takes into account Indigenous norms, values and languages in the Arctic and northern regions with specific investments, goals and measurable outcomes reported annually to both houses of Parliament.
13. That Canadian Heritage increase its investments in the Northern Aboriginal Broadcasting Program and extend multi-year, flexible funding specific to Arctic recipients so they can produce content in the Indigenous language of their choice.
14. The Government of Canada, in close collaboration with local, Indigenous and territorial governments, support the development of multi-use community centres for the practice of arts, culture and language.
15. That the Government of Canada and the Canada Council for the Arts work with Indigenous and Arctic arts organizations, to provide local outreach to Arctic and northern artists, including specific supports to emerging artists in such areas as building capacity to apply for grants and to exhibit their work.

SCIENCE, INDIGENOUS KNOWLEDGE AND ENVIRONMENTAL CONSERVATION

16. That the Government of Canada collaborate with territorial governments, Arctic Indigenous governing bodies, academic institutions and industry to grow the scientific capacity of northern agencies and peoples responsible for devising adaptation efforts to climate change.

17. That the Government of Canada create mechanisms for Arctic Indigenous representational organization's input into federal research governance bodies, and partner with Arctic Indigenous governing bodies and communities in setting Arctic research priorities as it relates to funding requirements.
18. That the Government of Canada, with Indigenous governing bodies and organizations, develop a government-wide policy to direct how Indigenous knowledge and science can be better synergized to reflect a holistic approach, including the recognition of intellectual property rights of Indigenous knowledge holders.
19. That the Government of Canada: 1) Support community-driven environmental conservation efforts; 2) Recognize the central role of co-management bodies in the Arctic when proposing environmental conservation initiatives; and 3) Ensure collaborative governance in environmental decision-making.
20. That the Government of Canada recognize socio-economic and cultural equity opportunities in Arctic environmental conservation and invest in the development of infrastructure and Indigenous environmental stewardship initiatives that support a conservation economy.

THE ARCTIC IN A GLOBAL CONTEXT

21. That the Government of Canada enhance support for the University of the Arctic to provide Arctic youth with international learning opportunities and enable the network to increase its activities in Canada and throughout the circumpolar Arctic.
22. That the Government of Canada increase support for international Arctic scientific cooperation, while ensuring that scientific activities conducted in the Canadian Arctic are focused on the knowledge needs of local Arctic residents.
23. That the Government of Canada ensure the Canadian Arctic's security and safety and assert and protect Canada's sovereignty in the Arctic.
24. That the Government of Canada, on an immediate basis, establish a robust governance regime to regulate activities in Canada's Arctic waters, including shipping corridors, and bonding and insurance requirements. Such a regulatory regime must include the active involvement and participation of Arctic Indigenous governing bodies and communities.
25. That the Government of Canada enhance maritime and aerial situational awareness of the Canadian Arctic, including improving the icebreaking capacity of the Canadian Coast Guard, and equipping the Canadian Rangers' with marine capabilities.
26. That the Government of Canada propose the establishment of a Pan-Arctic Infrastructure Bank at the Arctic Council and ensure an improved investment climate and trade flow in the circumpolar Arctic Region.

27. That, to ensure regional stability and facilitate information-sharing, the Government of Canada establish a forum dedicated to Arctic security issues involving the participation of all Arctic states.
28. That, to reinforce international Arctic cooperation, the Government of Canada increase its involvement at the Arctic Council as well as bolster funding for Indigenous permanent participants of the Council.
29. That the Government of Canada increase Arctic Indigenous representation at international forums and treaty negotiations related to the Arctic, including the *United Nations Convention on the Law of the Sea* process.
30. That the Government of Canada address the urgent need to enhance search and rescue and emergency protection infrastructure in the Arctic, and ensure Arctic Indigenous communities are involved in the management of this infrastructure.

Essential to its work was to hear from Arctic residents directly. The committee travelled to the Arctic in September 2018, held meetings in Kuujuaq, Nunavik; Iqaluit, Baker Lake, and Cambridge Bay, Nunavut; Yellowknife and Inuvik, the Northwest Territories and Whitehorse, Yukon. While it heard from a wide array of witnesses, including Indigenous leaders, governments, community members, youth, business representatives and industry, unfortunately it did not hear from several First Nations governments, from youth associations nor women's organizations under the timeframe it had to complete its work.

The Arctic is quickly changing, and territorial and Indigenous leaders alike observed that the changing climate threatens every part of daily life. As a witness described, "The threat to our traditional territory, our lands, animals and fish are very real and ongoing."⁴ The Arctic and its surrounding oceans will continue to warm at a faster rate than the rest of the globe,⁵ which will increase extreme weather events like flooding and fires and reduce permafrost and sea ice, making navigation increasingly dangerous. The rising waters threaten coastal communities. While some see an Arctic without sea ice in the coming years, others stressed that the ice will be less reliable⁶ as the climate warms, posing problems with harvesting and hunting, dramatically changing conditions for fishing, transportation and responding to emergencies.

Canada has long neglected the Arctic by leaving its nation-building project unfinished. From food security to access to education and health care, the high cost of living and aging or non-existent infrastructure, the Arctic's residents are marginalized by their exclusion from investment. Canada falls even further behind when it is compared with other circumpolar countries, which make significant investments in the Arctic regions.

The impact of the underinvestment hits hardest on the Arctic's greatest asset, Indigenous youth. The Arctic's population is young, and this generation deserves greater supports to act on their priorities, so they can deal with the rapid social and economic changes the Arctic is facing.

While the Government of Canada is preparing a policy for the future of the Arctic, it has committed to building a new relationship with First Nations, Inuit and Métis peoples. Indigenous peoples in the Arctic are addressing the legacies brought about by the era of colonialism which, over a very short period of time, brought about disastrous consequences to Arctic Indigenous peoples. The era of colonialism gave rise to the relocations of Inuit, the "Eskimo identification" program, project surname, the establishment of settlements and forced attendance of Indigenous children in residential schools. This history has been exacerbated by policy and programs designed and delivered from southern Canada.

As shared by the Qikiqtani Inuit Association, "Doing the hard work to address colonial policies and decisions is both very raw and necessary for Inuit to move forward with future opportunities." The Arctic and Northern Policy Framework ('the framework') must be centred upon locally-identified

⁴ Senate, Special Committee on the Arctic, Steve Smith, Chief, Champagne and Aishihik First Nations, [Evidence](#), 11 June 2019.

⁵ Government of Canada, [Canada's Changing Climate Report – Executive Summary](#), 2019.

⁶ David Barber, Professor, University of Manitoba, As an individual, [Evidence](#), 16 April 2018.

processes for reconciliation and healing, situating the well-being of Indigenous communities at the centre of the framework and following their lead on achieving their priorities.⁷ The current challenges presented by a climate change are compounded by the legacy of colonialism and the history of southern-driven policy and program delivery in the 20th century.

Importantly, the federal government is a key part of meeting these challenges with its partners, territorial and Indigenous governments. First, in the conclusion and implementation of comprehensive land claims agreements, historic treaties and self-government agreements established with Inuit, First Nations and Métis peoples. Second, in the implementation of devolution of province-like powers to Yukon, Northwest Territories and, by 2023 to Nunavut. Third, Canada maintains responsibility in the territories for: intergovernmental relations; Indigenous programs and services; remediation of contaminated sites; management of the offshore; and various matters related to shipping, including navigation and safety, security and sovereignty.

Witnesses were hopeful that a new framework would harmonize the activities of different federal departments related to the Arctic, recognize Indigenous inherent rights and strengthen capacity, coordinate the multi-jurisdictional governance and regulatory environments and create space for public and Indigenous governments at all levels, especially community governments⁸, to make policy decisions together. An important first step for the Government of Canada is to adopt a consistent definition of the Arctic across federal departments for greater coherency and to build in real processes to ensure Arctic residents are in control of policy and program development. Therefore, the committee recommends:

1. That the Government of Canada adopt a consistent definition of the Arctic with respect to legislation, policy directives and programs.

The committee believes strongly that the Arctic is the future of Canada, and its primary strengths are its residents. Arctic and northern leaders noted that the region holds the potential of driving Canada's economy for the coming decade. The proposals presented in this report - of a skilled Indigenous labour force, infrastructure to improve the quality of health and educational systems, healthy citizens practicing their cultures and speaking their languages and improved living standards - will help to achieve the overall social development goals of communities. This report also argues that Arctic research that incorporates Indigenous knowledge and is community-driven is essential to ensure that scientific investments benefit Arctic residents and answer key questions facing the region. On the international dimensions of the forthcoming policy framework, in the committee's view, actions ensuring prosperous, sustainable and safe Arctic communities will also enhance

⁷ Supplementary document submitted by Gwich'in Tribal Council and Deputy Grand Chief and Vice-President Jordan Peterson, Gwich'in Tribal Council, Committee fact finding trip, Yellowknife, Northwest Territories, 10 September 2018.

⁸ Supplementary document submitted by the Northwest Territories Association of Communities; Madeleine Redfern, Mayor, City of Iqaluit, [Evidence](#), 22 October 2018.

Northern Lights: A Wake-Up Call for the Future of Canada

Canada's ability to project its Arctic foreign policy, including sovereignty in the region. This report is comprised of four chapters. First, healthy economies and comprehensive infrastructure; second, arts, language and culture as pathways to strong communities; third, the environment, Indigenous knowledge and science; and, lastly, the Arctic in a global context.



The Baker Lake Inukshuk, members of the Special Senate Committee to the Arctic.

BACKGROUND – THE ARCTIC IN CONTEXT

The Arctic is a dynamic cultural, social, political and economic region. It encompasses one-third of Canada’s land mass and half of its coast line. Arctic communities are small and close-knit, with diverse populations and unique forms of governance, which require careful consideration when establishing broader goals for social and economic development. The territories have the highest proportion of the Indigenous people in Canada: 86% of the population of Nunavut is Inuit, 51% of the population of the Northwest Territories is First Nations, Inuit or Métis; and 23% of Yukon is First Nations.⁹ The population of the Arctic is youthful, and rapidly growing. The committee strongly agrees with witnesses who emphasized that the federal framework must be driven “in the North, by the North, for the North” and as an opportunity to move away from the one-size-fits-all approach to federal policy development.

A. Governance

1. Devolution

Governance in the Arctic region is quickly evolving. Devolution agreements have been concluded in Yukon and Northwest Territories, bringing about control over public lands, inland waters and resources to the elected officials in the territorial governments. As a result, the Northwest Territories now has authority over resource development and 50% of natural resource revenue. Honourable Bob McLeod, Premier of the Northwest Territories, outlined their approach to share 25% of revenues more broadly with participating First Nations governments “to make sure they and their people were receiving the benefits of development in our territory.”¹⁰ Revenues from prospective offshore oil and gas fields, however, remain under federal jurisdiction.

Yukon has also benefited economically and politically since it concluded its devolution agreement with the federal government in 2003. With a greater share of revenue from its natural resources, Yukon’s economy has experienced positive GDP growth overall, often exceeding other regions of Canada. However, Honourable Sandy Silver, Premier of Yukon said that due to the territory’s lack of full provincial powers, Yukon is limited in its ability to issue and raise debt instruments, a tool provinces use for large-scale investments.

Nunavut is the only jurisdiction in Canada that does not have complete control over its land and resources, with “80% of the territory still controlled by the federal government”.¹¹ Territorial officials believe devolution holds promise for the territory, pointing to their experience following the conclusion of the *Nunavut Land Claims Agreement*, whereby Inuit-owned lands (comprising about

⁹ *Brief*, Canadian Northern Economic Development Agency.

¹⁰ Honourable Bob McLeod, Premier of the Northwest Territories, Government of the Northwest Territories, *Evidence*, 26 February 2018 and Honourable Wally Schumann, Minister, Industry, Tourism, Investment and Infrastructure, Government of the Northwest Territories, Committee fact finding trip, Yellowknife, Northwest Territories, 10 September 2018..

¹¹ Honourable Paul Aarulaaq Quassa, Premier of Nunavut, Government of Nunavut, *Evidence*, 26 February 2018.

20% of land surface in Nunavut) is where “most of the developments are now taking place”.¹² These revenues are for the Inuit of Nunavut, collected by their beneficiary organization, Nunavut Tunngavik Inc. The Government of Nunavut expects to have a devolution agreement in place with the federal government by 2023 which could provide a greater fiscal benefit for the territorial government.

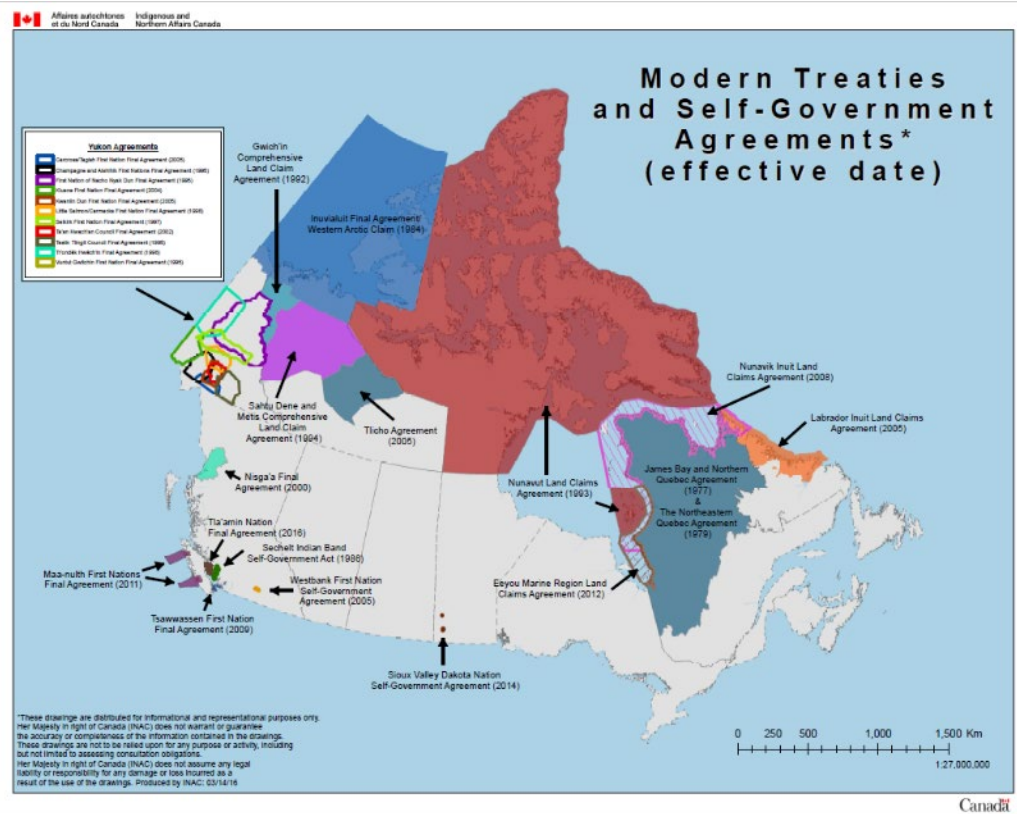
The committee heard from 17 federal departments, agencies or crown corporations that have responsibilities related to the Arctic, and there are others that did not appear. The service arrangements are highly complex, making it difficult to discern Arctic-specific programs, investments and outcomes. Engagement between federal departments and Arctic peoples often results in departments asking the “same questions over and over.”¹³ The fragmented structure of federal approaches to Arctic and northern regions could contribute to incoherency or discord in policy development, funding and legislative frameworks. Given the array of federal programs and services developed and delivered from southern Canada, the Committee is of the view that changes are required. The Committee believes that the capacity to assess needs, deliver services and evaluate outcomes rests with Arctic residents themselves. Therefore, the committee recommends:

2. That the Government of Canada develop a strategy that: 1) empowers Arctic and northern governments to assume roles in delivering federal programs and services to its residents; and 2) devolves federal programs and services related to the Arctic and northern regions to local, territorial and Indigenous governments.

¹² Honourable Paul Aarulaaq Quassa, Premier of Nunavut, Government of Nunavut, *Evidence*, 26 February 2018.

¹³ Claudio Aporta, Director, Marine Affairs Program, Dalhousie University, *Evidence*, 1 April 2019.

Figure 2 – Map of Comprehensive Land Claims and Self-Government Agreements



Source: Indigenous and Northern Affairs Canada, 14 March 2016.

2. Comprehensive land claims agreements and historic treaties

There is broad support for the conclusion and effective implementation of comprehensive land claims agreements, historic treaties and self-government agreements. The Gwich'in Tribal Council reminded the committee that "the future of the North is intimately linked to the full implementation of the land claim agreements."¹⁴ Greater federal support to strengthen the capacity of Indigenous governments is required. Indigenous government and industry agree that not concluding and implementing comprehensive land claims agreements and historic treaties has had a negative impact. For example, the Yukon Chamber of Mines observed there was a decline in prospecting in the region due to the large parts of the territory which remain under negotiation, noting there would likely be less mining in the territory in the future due to uncertainty posed by outstanding land claims agreements.

Each territory has legislation in place to oversee surface rights, environmental, water and socio-economic assessment and land use. Comprehensive land claims agreements have given rise to

¹⁴ Deputy Grand Chief and Vice-President Jordan Peterson, Gwich'in Tribal Council, Committee fact finding trip, Yellowknife, Northwest Territories, 10 September 2018

Indigenous governments with increased control and ownership of land and assumed co-management responsibilities for future resource planning and land, water and wildlife management.¹⁵ The co-management of resources brings decision-making over land and resources closer to communities. Regulatory approvals in the Arctic thus differ according to the territory. As they are informed by and designed by Indigenous peoples who bring different approaches and capacities to these boards, and their successes are not as widely known, it can be a challenge for external parties to navigate.¹⁶

Due to the leadership and participation of Indigenous peoples, the regulatory regimes take into account Indigenous knowledge and scientific evidence to make decisions about wildlife management, land use and environmental protections. The Nunavut Impact Review Board observed that “*Inuit Quajimajatuqangit*, [Inuit knowledge] assists greatly in making impact predictions, particularly where scientific baseline [data] may be missing.”¹⁷ The Sahtú Land Use Planning Board reported that it relied heavily on Indigenous knowledge and community engagement to develop its land use plan. Through land use planning, Indigenous organizations and governments have identified a number of significant land and marine areas for conservation.¹⁸

Several witnesses made proposals to strengthen the function of regulatory boards in the Arctic, starting with greater coordination and collection of baseline information about the land, waters and ice. Appropriate and relevant data and information is important to make predictions at the regional and community levels. As shared by the Nunavut Impact Review Board, “Nunavut is under-represented in terms of available scientific baseline information.”¹⁹ It is difficult to begin land use planning without reliable data to measure, compare change and predict future impacts on the land, wildlife or waters.

There is a lack of long-term funding and federal engagement to support the function of regulatory boards established under comprehensive land claims agreements that are tasked with creating land use plans. For example, the Sahtú Land Use Planning Board suggested that dedicated funding for more than one fiscal year, timely appointments to its board and federal engagement in the five-year review would bring about greater land use planning success. While the federal *Nunavut Planning and Project Assessment Act* provides for federal funding for community members to participate in regulatory review similar to processes established in southern Canada, the lack thereof means that participation in land use planning and regulatory processes is likely cost prohibitive for most Arctic residents.

¹⁵ Clint Davis, CEO, North35 Capital Partners, *Evidence*, 11 June 2018.

¹⁶ Supplementary document provided to the Committee, Nunavut Impact Review Board, Committee fact finding trip, Cambridge Bay, Nunavut, September 2018.

¹⁷ Supplementary document provided to the Committee, Nunavut Impact Review Board, Committee fact finding trip, Cambridge Bay, Nunavut, September 2018.

¹⁸ Mary Simon, *A New Shared Arctic Leadership Model*, March 2017.

¹⁹ Supplementary document provided to the Committee, Nunavut Impact Review Board, Committee fact finding trip, Cambridge Bay, Nunavut, September 2018.

Inuit consider the land, waters and ice of the Arctic their homelands. The Clyde River Supreme Court of Canada ruling found there is an obligation to consult and afford remedies with Inuit even if the project takes place outside of Inuit lands.²⁰ Witnesses told the Committee that the Government of Canada placed Arctic waters off limits to new offshore oil and gas licensing without consulting Inuit rights-holders. Currently, the Government of Canada is considering the establishment of a co-management regime with the governments of the Northwest Territories and Yukon, and the Inuvialuit Regional Corporation. The committee believes that Indigenous and territorial governments have a key role to play in co-management of the Arctic offshore as “any resource extraction that occurs in the extended continental shelf has the potential to impact the marine wildlife in the Arctic Ocean, not only in the immediate area but throughout the Arctic Ocean.”²¹ Therefore, the committee recommends:

3. That the Government of Canada: 1) provide greater financial support for the implementation of comprehensive land claims agreements, including land use planning processes and governance of regulatory boards; and 2) consult and cooperate with Indigenous and territorial governments to develop co-management regimes with respect to the Arctic offshore waters.

3. Fiscal relations and fiscal needs

The Government of Canada makes important fiscal transfers to territorial and Indigenous governments in the form of territorial formula financing, and contributions to Indigenous governments to offer comparable public services to those offered in the south. However, the high cost of living and operating in the Arctic and the number of isolated, small communities, place considerable strain on Arctic governments to meet their responsibilities to their citizens. The territories’ unique circumstances within Canada calls for innovative solutions.

The committee heard repeatedly that federal funding continues to disadvantage the Arctic which does not have the population to drive per capita investment. Whether it be for trade and transportation corridors, housing or health care, building new infrastructure like ports, extending broadband telecommunications to remote areas, basic services such as water and wastewater, federal investments fall short. When programs have dedicated funds for the Arctic, they are heavily oversubscribed as the needs are so acute.²²

The inadequacy of federal investments are due to a variety of factors: programs are often announced too late in the year to take advantage of the shipping and small construction window, delaying the start of new builds; the funds are short-term, and perhaps project-based, and inhibit the creation of

²⁰ Peter Hutchins, Supplementary document provided to the committee, 1 April 2019 and *Clyde River (Hamlet) v. Petroleum Geo-Services Inc.*, 2017SCC 40, [2017] 1 S.C.R. 1069.

²¹ Peter Hutchins, Supplementary document provided to the committee, 1 April 2019.

²² Mining Association of Canada, Supplementary document provided to the committee.

transportation, energy or telecommunications networks across several regions; and the degree to which the funding is uncoordinated between a dozen or so federal departments makes it difficult to find the funding to apply for in the first place.

For example, the committee learned of Iqaluit's water shortage in 2018 and Madeleine Redfern, Mayor of Iqaluit observed that there was no federal funding source: "I think there are too many programs. The Government of Nunavut...had identified 27 or 28 different climate change programs. ... The programs haven't been a good fit."²³

Some witnesses observed there were funding approaches which worked well, such as the increase in the proportion of federal contributions for projects, flexible multi-year funds and dedicated funding streams for northern and rural projects.²⁴

The committee believes the Arctic requires strong leadership between federal and other orders of government to address the needs and priorities of the Arctic and to find common solutions to the rapid changes the region is experiencing.

The committee believes strongly that federal departments must take Arctic needs into account, including timing of funding announcements, local service delivery points, supporting public services in Indigenous languages and facilitating greater coordination between federal departments on investments. The committee was encouraged to see that Bill C-97, the Budget Implementation Act establishes a Minister of Northern Affairs to be appointed by the Governor-in-Council; and believes the position will create a 'champion' within the Government of Canada to facilitate stronger relations with territorial and Indigenous governments. Therefore, the committee recommends, as soon as Bill C-97 comes into force:

4. That the Government of Canada appoint a Minister of Northern Affairs in control of its own parliamentary appropriation and that this cabinet position report annually to Parliament on its activities.

²³ Madeleine Redfern, Mayor, City of Iqaluit, *Evidence*, 22 October 2018.

²⁴ Honourable. Sandy Silver, Premier of Yukon, Government of Yukon, Committee fact finding trip, Whitehorse, Yukon, September 2018.

B. Climate Change

*The Arctic is warming at twice the rate of the global average. This has changed our traditional transportation routes and the animal life, and the infrastructure is less secure in the villages with melting permafrost. We need an action plan and funding to relocate some of our communities and to stabilize the others.*²⁵

Warming trends are threatening Indigenous peoples' cultures, lifestyles and languages as they are intimately connected to the land for subsistence hunting, fishing and harvesting. Recent research on climate change indicates that specific parts of the Arctic are warming at three times the global average and notes that it is "likely that more than half of the observed warming in Canada is due to the influence of human activities."²⁶ While Northerners are not contributing significantly to climate change in the form of emissions, they are more at risk than the rest of Canada. The transformation of the Arctic's land and sea environments results in the deterioration of Indigenous peoples' physical and mental health, threats to food sources and the destabilization of infrastructure.²⁷ Indigenous peoples and academics alike emphasized the importance of collecting information now on the ways warming temperatures are changing food species and migration patterns. Indigenous communities noted this work is particularly urgent, so they will not entirely lose the food that they get from harvesting and hunting. Climate change is having a direct effect on those in the Arctic, who require greater support to develop plans to adapt.

Climate change has led to more invasive species, which affects wildlife and people's diets in the Arctic. For example, the spruce beetle killed trees over large parts of Yukon and has led to more wildfires. Species that are primary food sources of Inuit and First Nations people, like caribou or walrus, are at risk of contamination by parasites. Some communities have established innovative initiatives to respond to such changes. For example, the Nunavik Research Institute, established by Inuit of Nunavik, established a public health protocol on food safety whereby hunters send walrus samples to the Institute, which then informs communities if the walrus meat is safe for consumption.

Permafrost decay threatens existing infrastructure and significant amounts of money are already being spent to mitigate and adapt roads, building foundations, sewers and water pipes. The Northwest Territories Association of Communities estimates annual economic losses in the millions of dollars on community assets due to permafrost decay. Christopher Burn raised the climate-related costs of maintenance on the Yukon portion of the Dempster Highway was in 2005 about 20% of territory's budget. Now, about 45% of the maintenance budget is spent on these activities."²⁸ The

²⁵ Hon. Charlie Watt, former senator, President, Makivik Corporation, *Evidence*, 26 March 2018.

²⁶ Government of Canada, *Canada's Changing Climate Report – Executive Summary*, 2019, p. 5.

²⁷ Louis Fortier, Professor, Laval University and ArcticNet, Network of Centres of Excellence, As an individual, *Evidence*, 19 March 2018.

²⁸ Christopher Burn, Chancellor's Professor of Geography, Carleton University, As an individual, *Evidence*, 19 March 2018.

Arctic requires strategic investments and shared plans among the different jurisdictions to adapt to climate change which “will become the largest megaproject the North has ever seen.”²⁹

Some noted that a warming climate may enable economic opportunities to emerge. For example, the expansion of agriculture to warmer regions or the growth of the construction sector to deal with the effects of permafrost decay may be imminent.³⁰ New innovations in renewable energy could see the Arctic region well-positioned to be leaders in adaptation and mitigation measures, in Canada and around the world. Witnesses reported that the Arctic is well positioned to drive innovation in cold climate resource extraction and has the natural resources needed to support the expanding green economy.³¹

²⁹ Frances Abele, Professor, School of Public Policy and Administration, Carleton University, As an individual, *Evidence*, 1 April 2019.

³⁰ Hon. Bob McLeod, Premier of the Northwest Territories, Government of the Northwest Territories, *Evidence*, 26 February 2018.

³¹ Honourable Bob McLeod, Premier of the Northwest Territories, Government of the Northwest Territories, *Evidence*, 26 February 2018 and Jim McDonald, Mayor of Inuvik, Committee fact finding trip, Inuvik, Northwest Territories, September 2018 and Duane Smith, Chair and Chief Executive Officer, Inuvialuit Regional Corporation, Committee fact finding trip, Yellowknife, Northwest Territories, September 2018.

CHAPTER 1: HEALTHY ECONOMIES TO BENEFIT THE ARCTIC

To many, the Arctic represents Canada's future. Given the large proportion of the population of the Arctic that is Indigenous, the success of the region is "strongly linked to the prosperity of northern Indigenous people."³² There is "a significant opportunity for Canada to fully engage the Indigenous labour force, especially in the north."³³

Economic Challenges and Opportunities

The committee strongly agrees with witnesses, who emphasized that Indigenous youth must be engaged in education and the labour force. This chapter of the report will focus on Arctic economies, infrastructure and education, skills and employment for Arctic Indigenous peoples. Without bold and strategic investments in infrastructure and education, the promise of the Arctic for its residents may go unfulfilled.

While the territories are poised to lead the rest of Canada in future economic growth, the infrastructure deficit was raised as a major barrier to social and economic development. While the Canadian Arctic makes up 25% of the international circumpolar region, its economic production accounts for less than 2% of the circumpolar economy. Clint Davis noted that this is because the Canadian Arctic is "under-built."³⁴ Infrastructure development in the region requires political commitment, strategic vision and concrete plans.

The Arctic economies are unique and can be characterized as mixed, whereby residents rely on wage employment and traditional activities such as harvesting, hunting, fishing and trapping, and produce art, tanned hides, furs and related handicrafts.³⁵ In some communities in *Inuit Nunangat*, up to 50% of the adult population earns part of their income as artists.³⁶ In real terms, there are about 4,200 Inuit artists working across Canada, predominantly in *Inuit Nunangat* representing about 2,100 full-time positions, and contributing about \$64 million to the Canadian GDP in 2015.³⁷ Yet the "extent Inuit art plays a vital role in economic development in the Arctic ... is poorly understood and supported."³⁸ The types of supports required for artists in the Arctic are raised in greater detail in the following chapter.

³² Brief, Canadian Northern Economic Development Agency.

³³ Hilda Broomfield Letemplier, Board Member, National Indigenous Economic Development Board, *Evidence*, 28 May 2018.

³⁴ Clint Davis, CEO, North35 Capital Partners, *Evidence*, 11 June 2018.

³⁵ Nunavik Furs Cooperative, Committee fact finding trip, Kuujuaq, Nunavik, September 2018 and Makivik Corporation et al., *Parnasimautik Consultation Report on the consultations carried out with Nunavik Inuit in 2013*, 14 November 2014.

³⁶ Natan Obed, President, Inuit Tapiriit Kanatami, *Evidence*, 15 October 2018.

³⁷ Big River Analytics, *Impact of the Inuit Arts Economy*, 2017.

³⁸ Natan Obed, President, Inuit Tapiriit Kanatami, *Evidence*, 15 October 2018.

Another unique feature of the Arctic economy is based on conservation. Mary Simon, Minister's Special Representative in her 2017 report, highlighted the conservation economy in the Arctic. Witnesses noted that the conservation economy has the potential to build on existing capacities and cultural strengths of Indigenous peoples and contributes to strong and healthy communities. This sector sees Indigenous peoples assuming roles and responsibilities in environmental and wildlife monitoring; vessel management; emergency preparedness and response, search and rescue and tourism. Mary Simon noted that support in this sector could contribute to healing and reconciliation by connecting youth with traditions and language, opportunities for land-based learning, supporting communities to regain land-based skills and documenting Indigenous knowledge.³⁹

Arctic leaders acknowledge the importance and potential growth of the tourism sector. Tourism can also be linked to the conservation economy in the Arctic. The committee learned that Government of Yukon is expanding the opportunities offered to international visitors with a pilot northern lights flight to see the northern lights from the air, and also heard that the territory attracts international visitors to its parks and links to Alaska.⁴⁰ The cruise ship *Crystal Serenity* was a shift for many communities in dealing with the economic potential of tourism and was raised as a best practice in terms of being adequately prepared, escorted by its own ice-breaker, and consulting with communities along the way. However, the Iqaluit Chamber of Commerce observed that art and other souvenirs were sold on the ship to its guests, which meant tourists were less inclined to purchase directly from artists in the communities where they visited.

Wage employment in the territories is provided primarily by three sectors: government and government support services, small businesses in the service industry, and natural resource extraction, predominantly mining in the Northwest Territories, Nunavut, Nunatsiavut and Yukon.⁴¹ The largest employer overall, is the public sector.⁴²

Mining is the largest private sector employer in the Arctic, contributing to 20% to 25% of the GDP of the northern territories and supporting about 9,000 jobs directly, or one in every six jobs. The rich mineral deposits in the territories means territorial growth is projected to surpass the rest of Canada. Some of the mineral potential of the North remains to be discovered with more work to do to understand the geological endowment, and importantly, the effects of resource development on ecosystems and Arctic peoples.⁴³ Representatives of the Government of the Northwest Territories underscored that the territory also has deposits that could “fuel the global green economy” including

³⁹ Mary Simon, *A New Shared Arctic Leadership Model*, 2017.

⁴⁰ Committee fact finding trip, Whitehorse, Honourable Jeanie Dendys, Minister of Tourism and Culture, Government of Yukon, September 2018.

⁴¹ Committee fact finding trip, Iqaluit, Sylvie Renaud, Director General, Canadian Northern Economic Development Agency, *Brief*, Atlantic Canada Opportunities Agency, *Brief*, Canada Economic Development for Quebec Regions.

⁴² Mining Association of Canada Facts and Figures and Brief, Mining Association of Canada, 1 October 2018.

⁴³ Linda Richard, Director, Northern Canada Division, Geological Survey of Canada, Natural Resources Canada, *Evidence*, 29 October 2018.

cobalt, gold, lithium, bismuth, and rare earth elements.⁴⁴ The Arctic also has the potential to contribute important minerals for the growth of the technology sector.

In addition to creating direct employment opportunities for northern communities, the mining industry also creates growth in other economic sectors including communications, energy and transportation infrastructure, and commercial services. In certain northern areas, mining has become a major contributor to the local economy and it is expected to create economic benefits in the future.⁴⁵ However, as natural resource activity is driven by global demand, Arctic economies are vulnerable to fluctuations in mineral prices.

Other limitations were raised by witnesses. For example, some community leaders noted that while there have been employment and income gains by some Indigenous peoples due to the growth of the mineral sector, infrastructure investments do not trickle down to communities. In many cases, infrastructure development only takes place at the mine site with nearby communities not benefitting from industry investments in energy, broadband or marine infrastructure.

Indigenous leaders, along with the territorial Premiers, see economic development and protection of the environment as two pillars of their sustainable development strategy.⁴⁶ Inuit leaders argued that “the careful and sustainable uses of natural resources have been necessary to Inuit survival for centuries.”⁴⁷ The committee heard concerns that striking this balance may be difficult given the priorities of different parties, for example, Duane Smith, Chair and Chief Executive Officer, Inuvialuit Regional Corporation observed that if “conservation is a priority for Canada, it cannot be achieved through the sacrifice of the few opportunities that exist in the Arctic.”⁴⁸ As stated by Honourable Charlie Watt, President of Makivik Corporation, “we need our economies too.”⁴⁹

The territorial governments have prioritized infrastructure and education investments to support growing industries like tourism, traditional or harvest economies, agriculture, arts, forestry, manufacturing, information technology and commercial fishing.⁵⁰

Innovative approaches to bidding, procurement and financing were raised by several Indigenous organizations. Economic development corporations established through comprehensive land claims agreements have started to collaborate to become greater forces in retaining capital and investment in the North to benefit their communities. For example, the six Inuit economic development

⁴⁴ Wally Schuman, Minister of Industry, Tourism, Investment and Infrastructure, Committee fact finding trip, Yellowknife, Northwest Territories, Government of the Northwest Territories, 10 September 2018.

⁴⁵ Canadian Northern Economic Development Agency, [Resource Development](#).

⁴⁶ Governments of the Northwest Territories, Nunavut and Yukon, [Pan Territorial Vision for Sustainable Development](#).

⁴⁷ Hon. Charlie Watt, former senator, President, Makivik Corporation, [Evidence](#), 26 March 2018; Bob Simpson, Director, Government Affairs, Inuvialuit Regional Corporation, [Evidence](#), 23 April 2018; Johannes Lampe, President, Nunatsiavut Government, [Evidence](#), 23 April 2018.

⁴⁸ Duane Smith, Chair and CEO, Inuvialuit Regional Corporation, Committee fact finding trip, Yellowknife, Northwest Territories, September 2018.

⁴⁹ Hon. Charlie Watt, former senator, President, Makivik Corp., [Evidence](#), 26 March 2018

⁵⁰ Governments of the Northwest Territories, Nunavut and Yukon, [Pan Territorial Vision for Sustainable Development](#).

corporations⁵¹ have come together to bid on common contracts. The new Inuit business development committee has identified four sectors for collaboration: renewable energy, telecommunications connectivity, infrastructure and new marine routes through the Northwest Passage.

The Kivalliq Inuit Association and Anbaric Development Partners have advanced a proposal for a hydroelectric – fibre-optic link between Manitoba and the Kivalliq region of Nunavut that could reduce the reliance on diesel in the region and improve internet connectivity. The partnership may create opportunities to take an equity position in the development of badly-needed infrastructure. The Yukon First Nation Chamber of Commerce believes Yukon First Nations development corporations, trusts and people can better participate in infrastructure development by investing in specific infrastructure projects that has a return on investment, take advantage of contracting opportunities and provide ongoing operational care and maintenance.⁵²

Indigenous leaders in the Northwest Territories are exploring ways to create to work together to achieve the scale necessary to achieve broader economic and infrastructure goals. As noted by Darrell Beaulieu, First Nations could invest some of their own capital in support of controlled resource development and export corridors to support their long term goals, “Dene want to be key players, along with other governments, in developing the badly needed transportation, energy, communication corridors in infrastructure in the Northwest Territories.”⁵³ He stated such partnerships could bring about a mixture of employment and business opportunities for Indigenous peoples which follow such investments.

Darrell Beaulieu and Yukon First Nation Chamber of Commerce urged the committee to consider improvements be made to federal procurement policies and set asides for Indigenous businesses. For example, environmental remediation presents significant opportunities for Indigenous businesses as the Arctic has some of the largest contaminated sites under federal jurisdiction. Indigenous companies were unsuccessful in obtaining contracts for some of the work presented by environmental remediation and it was recommended it should be a part of the set asides under the Procurement Strategy for Aboriginal Business, a program where Indigenous businesses can bid on specific federal contracts. The Yukon First Nations Chamber of Commerce noted the “Yukon First Nation Final Agreements are honoured in the spirit they were intended, especially when it comes to Chapter 22 the investment, procurement, employment and special provisions opportunities.”⁵⁴

With the right tools and investments, harnessing the potential of Indigenous businesses in the Arctic could lead to greater social and economic benefits overall. The committee heard that financial services are limited in communities, as are business support services. Blair Hogan who runs a

⁵¹ Including Inuvialuit Development Corporation (Inuvik, Inuvialuit Settlement Region), Kitikmeot Corporation, Sakku Investments (Rankin Inlet, Nunavut), Qikiqtani Corporation (Iqaluit, Nunavut), Nuvviti Development Corporation (Nunavik) and Nunatsiavut Group of Companies (Nunatsiavut).

⁵² [Brief](#), Yukon First Nation Chamber of Commerce.

⁵³ Darrell Beaulieu, Chief Executive Officer, Denendeh Investments Incorporated, Evidence, 15 October 2018.

⁵⁴ [Brief](#), Yukon First Nation Chamber of Commerce and Darrell Beaulieu, Chief Executive Officer, Denendeh Investments Incorporated, [Evidence](#), 15 October 2018.

successful biomass company in Carcross, Yukon observed mentoring and business supports during start-up are particularly important for Indigenous businesses to see growth over time.⁵⁵

Each region of the Arctic has unique opportunities but there are common challenges, outlined in the following section.

A. Churchill, Manitoba

Churchill is situated in an important place for Manitoba and Nunavut providing goods and services to Arctic communities via its trade and transportation routes. Churchill's position on the coast of the Hudson Bay region, makes it a draw for tourists and is home to world-class research facilities, the University of Manitoba's Churchill Northern Studies Centre and the forthcoming Churchill Marine Observatory. After a series of floods and washouts in May 2017, the rail line went unrepaired and as it is the only ground link, the community was stranded and isolated until October 2018. One-third of the population left Churchill as the cost of basic goods and services were prohibitive. The rail service's disruption was catastrophic to the region affecting communities in northern Manitoba and western Nunavut with higher costs for the transport of goods and passengers, "You have to remember there were people who were not called back for two years who were working at the port for the rail line. Construction came to a halt. Tourism numbers went down. There was lost employment and now the community is rebounding and lifting itself."⁵⁶

The Arctic Gateway Group comprised of First Nations communities, governments and the private sector came together to take an ownership stake in the rail line and port facilities. Taking an equity stake in ownership of strategic assets, and pooling ownership and risk, is a model other Arctic communities and groups are interested in exploring. Churchill is well positioned to build on its existing strengths, as it has benefited from past federal investments with the rail line established in 1929 and a deep-water port in 1931, along with an airport with a runway that can accommodate large planes. With the rail service restored, Michael Spence, Mayor of Churchill, remarked that Churchill's critical infrastructure is a transportation and trade gateway of national importance, and that business should be encouraged to use the ports for shipping to Nunavut and other markets. He recommended investments in establishing the Kivalliq fibre optic and hydro line which would provide significant benefits to the region.

B. Northwest Territories

The Northwest Territories' economy is fueled by its diamond mines and its real gross domestic product (GDP) grew 1.9% in 2018; nationally, real GDP rose by 2%. However, the territory's economy will likely contract by 3% a year over the next decade due to the projected decrease in diamond mine

⁵⁵ Blair Hogan, President, Gúnta Business and The Gordon Foundation, *Evidence*, 27 February 2019.

⁵⁶ Michael Spence, Mayor of Churchill, *Evidence*, 22 October 2018

production.⁵⁷ By 2035, it is expected that all the diamond mines will close, resulting in a rise in unemployment from the current 6.8% to over 10%. This will likely contribute to outmigration and job losses, having the cumulative effect of “shrinking the labour force.”⁵⁸

As stated by Honourable Bob McLeod, Premier of the Northwest Territories, “Tourism has been the fastest growing part of our economy. The aurora borealis viewing has been very successful. We’re moving more into eco and adventure tourism.”⁵⁹

The Government of the Northwest Territories and Indigenous governments in the territory urged the committee to consider addressing the infrastructure deficit in the territory as foundational to achieving the overarching objectives of the Arctic Policy Framework. As stated by Jordan Peterson, Deputy Grand Chief and Vice-President, Gwich’in Tribal Council, “Infrastructure is not an end in itself, it is an underpinning of the other goals of the Arctic Policy Framework.”⁶⁰

Warming temperatures will affect transportation infrastructure such as the ice-road network, used to connect communities to each other and industry to markets. The Northwest Territories’ Association of Communities stated that while communities in the Mackenzie Valley will be adversely affected and all communities will require support for upgrades and new builds.

Inuvialuit Settlement Region and Gwich’in Settlement Region

The Inuvialuit Settlement Region has numerous natural resources, with offshore oil and gas reserves and large natural gas fields. Duane Smith explained that “the primary objective of the Inuvialuit Final Agreement was to enable Inuvialuit to be equal participants in the northern and national economy”⁶¹ and to protect and preserve Arctic wildlife and environment. He emphasized that the Inuvialuit has a long record of striking a balance between development and ecological conservation.

The moratorium on offshore oil and gas exploration in the Beaufort Sea was raised by several witnesses as limiting the region’s economic potential and as an example of made-in-Ottawa policy-making. Both Jordan Peterson and Duane Smith observed industry is reluctant to invest in the region due to the uncertainty the moratorium presents. According to Jordan Peterson, large scale economic development options are “not immediately on the horizon” in the Gwich’in Settlement Area as the Mackenzie Valley Pipeline was put on hold.⁶²

⁵⁷ Brief, Canadian Northern Economic Development Agency; Adam Fiser, Principal Research Associate, Conference Board of Canada, *Evidence*, 28 May 2018.

⁵⁸ Adam Fiser, Principal Research Associate, Conference Board of Canada, *Evidence*, 28 May 2018.

⁵⁹ Honourable Bob McLeod, Premier of the Northwest Territories, Government of the Northwest Territories, *Evidence*, 26 February 2018

⁶⁰ Jordan Peterson, Deputy Grand Chief and Vice-President, Gwich’in Tribal Council, Committee fact finding trip, Yellowknife, Northwest Territories, 10 September 2018.

⁶¹ Honourable Bob McLeod, Premier of the Northwest Territories, Government of the Northwest Territories, *Evidence*, 26 February 2018; Jim McDonald, Mayor of Inuvik, Inuvik, Northwest Territories, Committee fact finding trip, September 2018 and Duane Smith, Chair and CEO, Inuvialuit Regional Corporation, Yellowknife, Northwest Territories, Committee fact finding trip, 10 September 2018.

⁶² The Government of Canada has since [responded to the calls from Arctic leaders](#), with steps to be taken to those affected by the moratorium.

The region is ideally suited for a growing spatial industry due to Inuvik's proximity to polar orbiting satellites. The recently completed Mackenzie Valley Fibre Link supports the industry with high speed data transfer services, connecting the Inuvik Satellite Station Facility to the rest of the world. The committee visited Natural Resources Canada's Inuvik Satellite Station Facility where they learned of how it supports 27 satellite missions. The committee also visited a private satellite facility station nearby which has been awaiting licensing for years from Global Affairs Canada, delaying the company from assuming an international contract.⁶³

C. Nunavut

Contrary to the trend in Northwest Territories, Nunavut is "on the cusp of a mining boom"⁶⁴ with five new mines to be in operation by 2021.⁶⁵ In 2018, GDP growth was the highest in Canada at 10% and is expected to be a similar rate in 2019. Some of the richest mineral deposits in Nunavut in the Kitikmeot region are inaccessible without significant investments in roads to connect to ice road infrastructure in Northwest Territories. The committee heard from the Kitikmeot Inuit Association and its subsidiary the Nunavut Resources Corporation about a proposal to develop the Grays Bay Road and Port Project on Inuit lands to create employment in the region. The project would connect the region known for its geological potential to the ice-road infrastructure in the Northwest Territories and the Northwest Passage. The prospective mine would also require investments for a deep water-port.⁶⁶

Over the last three decades, Nunavut's fishing industry has grown exponentially from subsistence-based harvesting to an offshore fishery generating over \$100 million in revenue. The Arctic Fishery Alliance, wholly owned by Inuit, noted Nunavut's offshore fish catches are processed at sea and offloaded in Greenland or Newfoundland for export. The absence of proper marine infrastructure capable of supporting the fishing industry results in economic leakage in the millions of dollars in skilled trades and associated business opportunities.⁶⁷

The *Nunavut Land Claims Agreement* mandates the negotiation of Inuit Impact and Benefit Agreements between prospective companies and Inuit. Thus far, through Impacts and Benefits Agreements with Inuit, some of the mining projects have resulted in higher levels of Inuit employment, for example at Agnico Eagle's Meadowbank Mine, discussed in greater detail later in the chapter.

With five mines slated to open, it would be expected that *Nunavummiut*⁶⁸ will benefit from growth in wages and employment, particularly with a young and growing Inuit population. However,

⁶³ Inuvik, Northwest Territories, Committee fact finding trip, September 2018 and Natural Resources Canada, *Inuvik Satellite Facility*.

⁶⁴ Adam Fiser, Principal Research Associate, Conference Board of Canada, *Evidence*, 28 May 2018.

⁶⁵ Adam Fiser, Principal Research Associate, Conference Board of Canada, *Evidence*, 28 May 2018.

⁶⁶ Paul Emingak, Executive Director, Kitikmeot Inuit Association, *Evidence*, 1 October 2018.

⁶⁷ Brief, Arctic Fisheries Alliance.

⁶⁸ Inuktitut for Inuit of Nunavut.

forecasts show that the territorial unemployment rate, currently at 14 % is expected to remain the same until well into the 2030s.⁶⁹ Many of the higher skilled jobs created in mining will be filled by southern-based workers that fly to and from mining sites, bypassing most of Nunavut's communities altogether. This means the benefits of development, and the well-paying jobs in mining, may not sufficiently benefit local people, and results in capital flight from the territory. The committee heard from Inuit students across the territory that they require greater access to post-secondary education and training,⁷⁰ on an urgent basis, so they can assume a greater share of the labour force.



Jessie Oonark (Canadian Baker Lake), 1906-1985), *Untitled*, c. 1972-1973, wool felt on wool duffle, 65x170 cm, Government of Nunavut Fine Art Collection, On long-term loan to the Winnipeg Art Gallery, 2.76.1, Photograph: Leif Norman, courtesy of the Winnipeg Art Gallery & Government of Nunavut

Infrastructure deficits in housing, renewable energy, marine transportation and connectivity mean the cost of living is significantly higher in Nunavut and makes the investment climate less appealing for industry. Infrastructure constraints also make it difficult for the territory to diversify its economy into other sectors of interest to Inuit like fisheries, the arts and tourism.

D. Nunatsiavut

Mining is the main economic driver in Nunatsiavut, and in the Labrador region generally, with Vale's nickel, cobalt and copper mine located on Inuit and Innu traditional territories, with a significant expansion announced this year. Impact and Benefit Agreements are in place between Vale, the Nunatsiavut Government and the Innu Nation, containing specific employment commitments and giving first consideration to Indigenous businesses for goods and services. As a result, 51% of the

⁶⁹ Adam Fiser, Principal Research Associate, Conference Board of Canada, *Evidence*, 28 May 2018.

⁷⁰ Aluki Kotierk, President, Nunavut Tunggavik Inc., *Evidence*, 26 March, 2018; Virginia Mearns, Associate Deputy Minister, Executive and Intergovernmental Affairs, Government of Nunavut, *Evidence*, 26 February 2018.

Voisey' Bay workforce is Innu or Inuit with Indigenous people assuming management and executive roles, and 80% of support contracts at the mine are assumed by Indigenous businesses.⁷¹ Other opportunities exist in the mineral sector with one of the world's largest undeveloped uranium resources situated outside of Postville, Nunatsiavut.

Fisheries are important to the Nunatsiavut region, with two fish plants in operation, and the Nunatsiavut Government holding quotas for several commercial fish species. Tourism is a burgeoning industry. With the recently opened Torngat Mountains National Park, Nunatsiavut Inuit see potential for growth, and visitors increase year to year.⁷² Again, like the other Arctic regions, the transport of people, supplies, raw materials and finished goods is costly and challenging, particularly in the winter.⁷³ The Government of Nunatsiavut sees economic growth being limited by the scarcity of connectivity, transportation and hospitality infrastructure.

E. Nunavik

Mineral exploration and mining are expected to grow in Nunavik with an additional three mines slated to be in operation until 2039. The Glencore-Raglan Mine started mining in 1997 for nickel and copper. The Raglan Agreement with Nunavik Inuit and the Glencore Group was the first Impact and Benefit Agreement in Canada and the mining projects provide employment and business opportunities arising from procurement and priority hiring of Inuit.⁷⁴

Other sectors such as tourism, renewable energy and fisheries offer promising economic opportunities.⁷⁵ For example, Nunavik Parks offer unique trekking and hiking opportunities. Nunavik's young population is entrepreneurial and interested in starting their own businesses. Services offered by the Kativik Regional Government in the areas of training and employment and, notably, child care in Inuktitut, provide essential supports for Inuit families. Inuit Tapiriit Kanatami cited evidence that the Nunavik's affordable child care system is one of the "factors thought to be linked to ... [Nunavik's] stronger labour market performance when compared to other *Inuit Nunangat* regions".⁷⁶

Poor housing, high cost of living and food insecurity and the remoteness of communities with exclusive reliance on air and sea transportation were cited as limiting employment and economic opportunities for Inuit.

⁷¹ Brief, Atlantic Canada Opportunities Agency.

⁷² Supplementary document provided to the committee, Torngat Mountains National Park, Parks Canada.

⁷³ Brief, Atlantic Canada Opportunities Agency.

⁷⁴ Meeting with Makivik Corporation, Kuujuaq, Nunavik, Committee fact finding trip, September 2018 and Brief, Canada Economic Development for Quebec Regions.

⁷⁵ Brief, Canada Economic Development for Quebec Regions.

⁷⁶ Inuit Tapiriit Kanatami, *Pre-Budget Submission 2019*.

F. Yukon

Yukon benefits from a skilled work force and has existing transportation, energy and broadband infrastructure assets. In 2018, Yukon had the lowest unemployment rate in Canada and GDP grew by 2.8%. With three new metal mines anticipated to open over the next decade, its economy is expected to grow at a rate of 6.2% between 2019 to 2025. The largest parts of Yukon's economy remain the public sector, followed by mining and quarrying and real estate.⁷⁷



Ted Harrison, *Comet*, 1989, Acrylic on canvas, Art Gallery of Greater Victoria collection, photo from AGGV

The Yukon First Nation Chamber of Commerce explained that with increased activity in the mining sector, there is increased demand for infrastructure in the form of transportation routes and ports to facilitate greater access to markets and energy infrastructure to meet demand in the mines. With a relatively small population spread out over the territory, the territorial government is challenged

⁷⁷ Government of Yukon, Supplementary document submitted to the committee.

to provide infrastructure and services. Much of the community-based infrastructure is aging and requires replacement, including water and wastewater treatment. Given its “enviable position”⁷⁸ of the lowest unemployment rate in Canada, it faces a shortage of employees and skilled labour. Aging infrastructure makes it difficult for remote communities to recruit and retain new employees.⁷⁹

Arctic Growth Depends on Infrastructure Development

Most Arctic regions face substantial deficits in community infrastructure such as housing, water and wastewater facilities, health and education facilities and telecommunications infrastructure. Investments in infrastructure, that can be used for multiple purposes, “multi-use”, will improve the quality and reduce the cost of delivering essential services such as health care and education. Community infrastructure, along with ground and air transport and energy infrastructure, is required to attract investment and facilitate business development which will, in turn, grow the Arctic economy⁸⁰ and raise the standard of living for Arctic residents.

Canada lags far behind other circumpolar countries with respect to Arctic infrastructure. However, unique challenges hinder social and economic development. The Canadian Arctic is a vast geographic area with communities that are far apart from one another and has a population with distinct needs in terms of education, health and supports to heal from the legacy of colonization. For example, some of the school systems do not offer education in Indigenous languages, nor are there many Indigenous teachers and other educators working in territorial systems.

Higher rates of food insecurity persist in the Arctic, exacerbated by climate change and environmental contamination.⁸¹ Basics like food, energy, housing and transportation raise the cost of living of Arctic residents. Arctic leaders emphasized that the gap in infrastructure further compounds the cost of living and contributes to the income inequality between Indigenous and non-Indigenous peoples, that must be addressed on an urgent basis. Finally, there are limited mechanisms for different levels of governments and communities to set priorities and make decisions, together.

Existing community infrastructure, like housing and community facilities, is deteriorating, aging and vulnerable to thawing permafrost and extreme weather events. Construction costs more in the Arctic. This is due to the cold climate and short construction season; the high costs of shipping raise the price of raw materials and supplies. It can take several years for the construction of assets to be completed; missing parts may only be shipped on the annual sealift.

These hard constraints are leading to the outmigration of families from remote communities to regional centres. As stated by Darrell Beaulieu, “From the smaller communities, people who are now

⁷⁸ Hon. Sandy Silver, Premier of Yukon, Government of Yukon, Whitehorse, Yukon, Committee fact finding trip, September 2018.

⁷⁹ Brief, Yukon First Nations Chamber of Commerce, 26 September 2018.

⁸⁰ Hilda Broomfield Letemplier, Board Member, National Indigenous Economic Development Board, *Evidence*, 28 May 2018.

⁸¹ Committee fact finding trip, September 2018, Food Security Workshop, Kuujjuaq, Nunavik.

generating a good source of income are moving into the larger centres such as Yellowknife.”⁸² This is because larger communities offer better access to housing and public infrastructure like community centres and education.

Industry representatives stressed the underdevelopment of Arctic infrastructure impedes prospective investment. For example, the Mining Association of Canada explained that “the largest factor influencing mineral investment decisions in Canada’s Arctic is heightened costs...it costs two to 2.5 times more to build the same ... mine off grid in the North compared to the South. About 70 percent of this northern cost premium is directly related to the Arctic infrastructure deficit.”⁸³ Witnesses described that they struggle prioritizing projects when the needs are so great and the available funds are so small.

Witnesses, including representatives from federal departments, emphasized that the Arctic has never benefitted from wide-scale public investments in infrastructure as in Southern Canada. Infrastructure investments in the South yielded significant economic returns over time. Some territorial and Indigenous governments indicated that their limited fiscal capacity like the inability to issue and raise debt instruments, the small population and large land mass means that partnerships with the federal government and/or industry are vital to deliver infrastructure and services to its citizens.⁸⁴

According to the National Indigenous Economic Development Board public support for infrastructure can leverage private sector investment, “in Northern regions...public investment in infrastructure can be important to start the investment cycle, even before private investment can take place.”⁸⁵ Industry, Indigenous and territorial officials agreed that the pronounced infrastructure deficit reduces the likelihood that the economic and social potential of the Arctic will be realized.

The lack of infrastructure affects social, economic and industrial development in the Arctic. While the region has several world class mineral assets, large reserves of crude oil and natural gas, and growing fishing and tourism industries, its potential will not be realized without strategic plans to develop new infrastructure, and to adapt existing facilities and transportation networks to climate change.

While the committee heard from the Canada Infrastructure Bank while it was in its infancy, it appeared that none of its early investments were being considered for the Arctic and Northern Regions. Federal programs which had tranches of funds specific to the Arctic were over-subscribed, like the Trade and Transportation Corridors initiative.

⁸² Darrell Beaulieu, Chief Executive Officer, Denendeh Investments Incorporated, *Evidence*, 15 October 2018.

⁸³ Brendan Marshall, Vice President, Economic and Northern Affairs, Mining Association of Canada, *Evidence*, 1 October 2018.

⁸⁴ Government of Yukon and Government of the Northwest Territories, supplementary documents submitted by the committee and Mayor and Council of Inuvik, Inuvik, Northwest Territories, Committee fact finding trip, September 2018.

⁸⁵ National Indigenous Economic Development Board, Recommendations on Northern Infrastructure to Support Economic Development, January 2016.

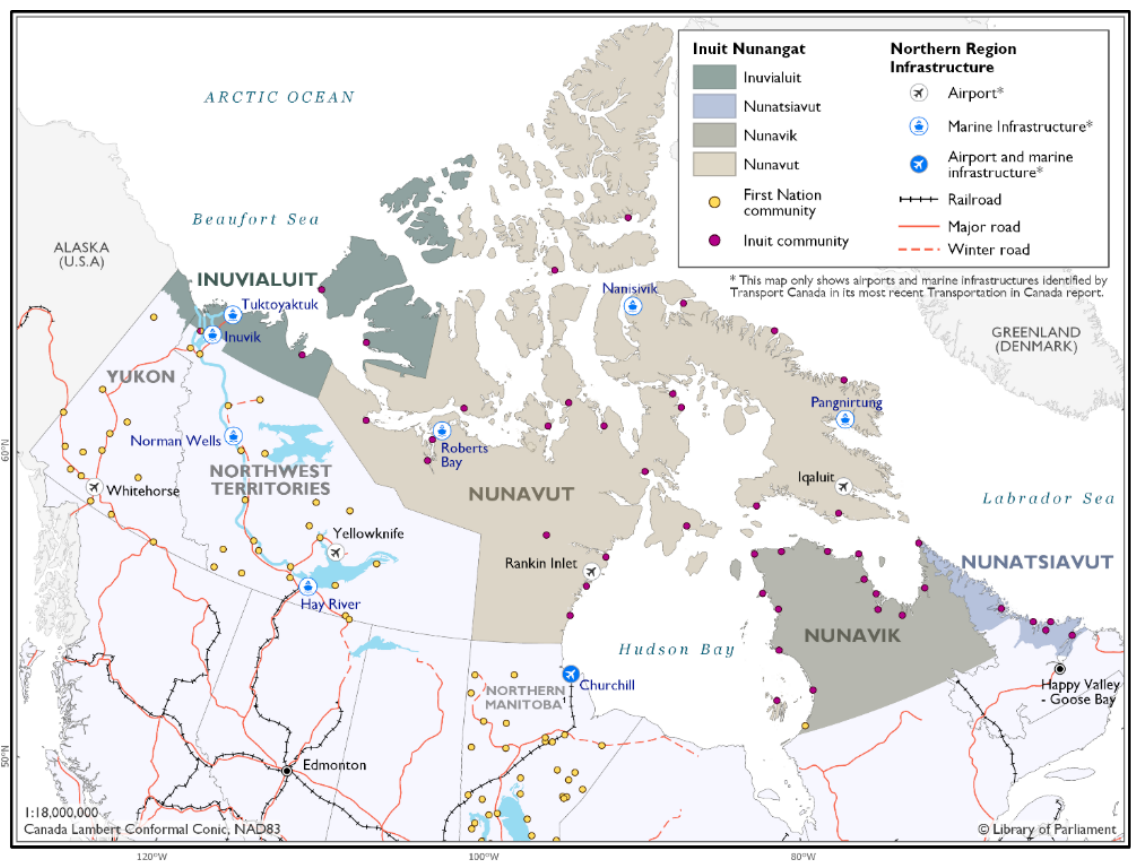
Northern Lights: A Wake-Up Call for the Future of Canada

Indigenous and territorial governments along with economic development corporations noted that strategic investments in infrastructure, including its adaptation to thawing permafrost, could boost new job growth and facilitate greater access to quality education, health and social services. The concept of building energy, broadband and transportation networks or corridors in the Arctic could support a comprehensive, coordinated and coherent plans to achieve over the coming decades.

The committee therefore recommends:

5. That the Government of Canada, in partnership with Indigenous and territorial governments, establish an Arctic Infrastructure Bank to fund new infrastructure and mitigate the effects of climate change on existing infrastructure and to ensure the funds are directed based on Arctic needs.

Figure 3 – Arctic and Northern Region Infrastructure



¹ Crown-Indigenous Relations and Northern Affairs Canada does not use a standardized definition to determine the boundaries of "Northern Manitoba". As such, on this map, there are no clear boundaries for this region, but the location of First Nations communities was nonetheless included.

Source: Map prepared by Library of Parliament, Ottawa, 2019, using data from Natural Resources Canada (NRCan), Administrative boundaries in Canada – CanVec Series, "Administrative features", 1:5M, Ottawa, NRCan, 2018; Lakes, rivers and glaciers in Canada – CanVec Series, "Hydrographic features", 1:5M, Ottawa, NRCan, 2018; Transport networks in Canada – CanVec Series, "Transport features", 1:15M, Ottawa, NRCan, 2018; Indigenous and Northern Affairs Canada (INAC), Inuit Regions (Inuit Nunangat), Gatineau, 2017; INAC, Inuit Communities Location, Gatineau, 2016; INAC, First Nations Location, Gatineau, 2016; and Natural Earth, Physical Vectors, Physical Labels, "Marine Areas", 1:50M, version 4.1.0. The following software was used: Esri, ArcGIS Pro, version 2.1.1. Contains information licensed under Open Government Licence – Canada.

The following provides an overview of housing, transportation, marine, emergency response and navigation, broadband and energy infrastructure in the Arctic.

A. Continuum of Housing

The persistent lack of suitable and safe housing affects the socio-economic outcomes of Arctic residents. The housing needs of Indigenous communities are acute. A continuum of housing types is required in the Arctic and northern regions, including: new homes including home ownership and rentals, long-term care facilities for the elderly, transitional homes, shelters for victims of violence, and residential addictions treatment centres.⁸⁶

The negative consequences of living in overcrowded homes are far reaching. Poor quality and unsafe housing affects health outcomes, like the high rates of tuberculosis in *Inuit Nunangat*. This, in turn, places additional strain on public services, such as health care. Due to overcrowded housing, students have difficulty finding space to do homework. Children and parents experience sleep deprivation, affecting school and employment performance and attendance, compounded by other factors such as food insecurity and housing. Peter Tapatai, an Inuk business owner at Agnico-Eagle's Meadowbank Mine, described the net effects of overcrowded housing: "When working at the mine site, Inuit workers are getting a rest; but when they go home, they get no sleep!"⁸⁷

Meeting the housing demand in the form of new construction comes with land development with community infrastructure in the form of water, sewer and waste management; making the costs of housing even greater for northern communities. Steve Smith, Chief, Champagne and Aishihik First Nations describes the pressure for new homes in Yukon,

*Housing in the Yukon is always under pressure. We've seen immense growth similar to places like Vancouver, Toronto and other big urban centres. We have seen a significant rise in housing costs. We feel this pinch because we're trying to attract people to come here and work for us but we don't have the housing available... and we need the develop land [to build new homes], but the support to develop the land is five or six years down the road, then we suffer a real pinch.*⁸⁸

Duane Smith urged the federal government to establish a housing strategy as a cornerstone of the Arctic Policy Framework, and to ensure "local benefits that emanate" from new housing construction remain in the community. The Nunatsiavut Government designed and built an energy efficient prototype in the form of six apartment units that takes into account passive solar heat in the winter. It will be monitoring the new prototype to see if it meets social and family requirements.⁸⁹ David Scott, President of Polar Knowledge Canada remarked that the National Research Council is working

⁸⁶ Inuit Tapiriit Kanatami, Pre-budget submission 2018; Isuarsivik Treatment Centre, Kativik Regional Government, Kuujuaq, Nunavik, Committee Fact Finding Trip, September 2018, and Duane Smith, Chair and CEO, Inuvialuit Regional Corporation, Yellowknife, Northwest Territories, Committee fact finding trip, 10 September 2018.

⁸⁷ Agnico Eagle Mine, Committee fact finding trip, Nunavut, September 2018.

⁸⁸ Steve Smith, Chief, Champagne and Aishihik First Nations, *Evidence*, 11 June 2018.

⁸⁹ Isabella Pain, Deputy Minister, Nunatsiavut Secretariat, Nunatsiavut Government, *Evidence*, 23 April 2018.

to revise a building code specific to northern conditions, including heat recovery to avoid mould with design options more suited to the way northerners live.⁹⁰

Northerners are tired of raising the same concerns about the urgency of the housing problem in the Arctic and it is now time to act. Furthermore, the committee believes it is time to finally develop building codes specific to northern conditions and cultures, along with Indigenous and territorial governments who are at the forefront of this work.

Arctic communities are pursuing innovative solutions to the housing problem. Inuit-specific housing designs are underway in Nunatsiavut where the Inuit-owned construction company constructs new units, ensuring homes are appropriate to the local climate and culture along with creating employment. The Government of Nunatsiavut is testing new foundations for homes that can adapt to discontinuous permafrost.

The committee acknowledges the important recommendations within the Standing Senate Committee of Aboriginal Peoples' 2017 report, *We Can Do Better: Housing in Inuit Nunangat Report*, many of which remain to be addressed. Given the acute needs for all types of housing across the Arctic, including shelters, transition homes, substance use facilities and homes, the committee therefore recommends:

6. That the Government of Canada: 1) direct the National Research Council to complete a building code adapted to Arctic conditions and the effects of climate change; 2) implement an action plan to mitigate the effects of climate change on existing and new infrastructure, including housing; 3) take immediate measures to address the housing crisis in the Arctic by funding a complete continuum of Arctic housing; and 4) report on the effects of its investments on housing annually to local, Indigenous and territorial governments.

B. Air and Road Transportation

Reliable transportation networks are closely connected to socio-economic development in the Arctic. For example, Nunavut communities are not linked by road and the territory has a deep-water port and small-craft harbor under construction in Iqaluit, an existing small-craft harbour in Pangnirtung with another in development in Pond Inlet. The territory relies exclusively on costly marine and air transportation for communities' diesel shipments, cargo for goods and travel between communities.

The Northwest Territories has all-season and ice-roads connecting communities and industry to markets and regional centres; both types of roads are under threat because of warming temperatures and thawing permafrost. The opening of the Inuvik Tuktoyaktuk Highway in 2017 was described as a positive development in terms of increased mobility of residents and attracting new

⁹⁰ David Scott, President and Chief Executive Officer, Polar Knowledge Canada, *Evidence*, 19 March 2018.

visitors to the region. The territory envisions an all-weather highway up the Mackenzie Valley to connect to Inuvik.⁹¹ However, the influx of tourists and southerners may erode the cultural and traditional norms of the community. Now that there is a road to Tuktoyaktuk, the community no longer qualifies for federal subsidies for food and other basics like the Nutrition North Program even though the road is not always open due to the thawing permafrost.

Discontinuous permafrost affects other modes of transportation. For example, in Nunatsiavut and Nunavik, runways require adaptation to ensure remote communities have reliable transportation. The Honourable Charlie Watt explained the effects of thawing permafrost, “We have 14 runways that we’ve spent a huge amount of dollars on already in the last 10 years and they need to be redone again. ...[I]n a community that I was in not too long ago, half of the runway collapsed.”⁹²

Transportation deficits differ according to the Arctic region. For example, communities in Nunatsiavut and Nunavut have aging runways that are too short to accommodate newer, more powerful planes, many also lack lighting systems to guide pilots during reduced visibility like in the evening, winter or during fog. Many flights are missed which is particularly important to residents who may miss out on critical medivac services.

C. Marine, Emergency Response and Navigation

Given that most communities are located on the coastlines marine infrastructure is important to Arctic residents. However, very few communities have ports impeding the movement of “goods and services in and out of those communities.”⁹³

Marine infrastructure is of critical importance to a conservation economy and to those that harvest food from the seas to feed their families and export commodities to external markets. Fisheries are an economic driver in Nunatsiavut, Nunavik and Nunavut and could be better supported by small craft harbours and deep-sea ports. The committee was encouraged to hear Pond Inlet has a small craft harbour under construction and Iqaluit is upgrading to a deep-sea port and improving its current breakwater to build a small craft harbour.

With the anticipated increased ship traffic along Canada’s coast, port facilities in Inuit communities in Nunatsiavut are not equipped to accommodate larger vessels nor are northern shipping routes properly charted. Johannes Lampe warned, “Extreme weather conditions are predicted to become more common in the future, creating a very real need for improve sea travel safety.”⁹⁴

Due to the underdevelopment of the Arctic’s marine infrastructure, Canada is limited in its capacity to respond to emergencies in the Arctic. Johannes Lampe observed that “some of the strongest and

⁹¹ Committee fact finding trip, September 2018, Yellowknife, Wally Schumann, Minister, Industry, Tourism, Investment and Infrastructure, Government of the Northwest Territories.

⁹² Hon. Charlie Watt, *Evidence*, 26 March 2018.

⁹³ Natan Obed, President Inuit Tapiriit Kanatami, *Evidence*, 15 October 2018.

⁹⁴ Johannes Lampe, President, Nunatsiavut Government, *Evidence*, 23 April 2018; Suzanne Paquin, NEAS Group, Kuujuaq, Nunavik, Committee fact finding trip, September 2018.

earliest impacts of climate change are being felt throughout Nunatsiavut. Sea ice coverage in northern Labrador Sea along our coast declined 73 % over the last 40 years, the largest rate of decline in all regions of Canada.”⁹⁵ Changing weather patterns has meant that travel on the ice and land is less reliable than previous years.

Complicating matters further, the Arctic seabed is sorely under-charted and ship traffic is expected to grow with more tourists sailing on pleasure crafts that may be ill equipped for Arctic passage. Emergencies are expected to become more common, placing greater demands on search and rescue services, as corroborated by the recent *Standing Senate Committee on Fisheries and Oceans Report, When Every Minute Counts: Maritime Search and Rescue*.⁹⁶

Emergency response in the Arctic is limited by an aging fleet of icebreakers deployed in its waters.⁹⁷ Suzanne Paquin recounted an incident which jeopardized the annual shipment of supplies to High Arctic communities in the fall of 2018. A Canadian Coast Guard icebreaker was diverted from its work to rescue a pleasure craft grounded in the shallow Arctic waters. She suggested shipping routes in the Arctic be federally regulated, to ensure ships use only specific routes which are safe and navigable.⁹⁸

D. Broadband Telecommunications

The Canadian Arctic lags far behind the rest of Canada and other circumpolar countries in digital connectivity. Reliable and affordable broadband telecommunications services can improve the delivery of public services, help to preserve culture and language and enable economic diversification by connecting remote communities to each other and the rest of the world. Broadband telecommunications access in the Arctic is poor and, where available, expensive. Nunatsiavut, Nunavut and Nunavik reported their communities were significantly underserved. Honourable Paul Aarulaaq Quassa underscored, “Our information superhighway, the Internet, is also hampered by our sole reliance on satellite for Internet and its associated high cost and slow speeds. This contributes to a sense of disconnect between Northern and Southern Canada and further isolates Nunavut from its national neighbours.”⁹⁹

When the committee travelled to Iqaluit, representatives of the Iqaluit Chamber of Commerce observed that not only was the Internet access slow, it was expensive for a middle-class family to afford. They shared that those with low incomes likely could not afford to access the Internet on a regular basis. Madeleine Redfern testified that Canada had missed out on connecting Baffin Island to fibre-optic lines from Nuuk, Greenland to Newfoundland. She stated “you effectively cannot put a branching unit in after it has been built. It is as expensive as a new build.” She called for the

⁹⁵ Johannes Lampe, President, Nunatsiavut Government, *Evidence*, 23 April 2018.

⁹⁶ Standing Senate Committee on Fisheries and Oceans Report, *When Every Minute Counts: Maritime Search and Rescue*, November 2018

⁹⁷ Suzanne Paquin, NEAS, Kuujuaq, Nunavik, Committee fact finding trip, September 2018.

⁹⁸ Suzanne Paquin, NEAS, Kuujuaq, Nunavik, Committee fact finding trip, September 2018.

⁹⁹ Honourable Paul Aarulaaq Quassa, Premier of Nunavut, Government of Nunavut, *Evidence*, 26 February 2018.

construction of a fibre link from “Iqaluit to Nuuk at a cost of approximately \$80 million”; a cost that would have been reduced by half had a branching unit been installed in the original design phase.



Inuvik Satellite Station Facility

Steve Smith, Chief, Champagne Aishihik First Nations and the Government of Yukon explained that while they are served by high-speed broadband, there is a need for a redundant connection to prevent service interruptions when, for instance, the existing line is cut or if there is a longer interruption.

The Mackenzie Valley Fibre Link, running from south of Fort Simpson to Inuvik, came online in 2017 and brings faster internet speeds to communities. As stated by Bob Simpson, “The bandwidth has improved because we have fibre-optic that goes to Inuvik and will be extended to another community, Tuktoyaktuk.”¹⁰⁰ The net effects of this investment had a positive effect on the lives of Indigenous peoples in the region.

¹⁰⁰ Bob Simpson, Director, Government Affairs, Inuvialuit Regional Corporation, *Evidence*, 23 April 2018.

The committee agrees with witnesses that broadband investments have not been equitable in the Arctic and its high cost results in the widening of the digital divide. Recent incremental federal investments in additional satellite coverage have not brought about accessible coverage in most communities.¹⁰¹ Therefore, the committee recommends:

7. That the Government of Canada establish a broadband telecommunications action plan with dedicated funds to support fibre deployment to underserved regions in the Canadian Arctic by March 2020.

E. Energy

Energy is central part of Canada's economy. Most Arctic regions rely exclusively on diesel to power communities. In Nunavut, the Qulliq Energy Corporation generates and distributes electricity through the operation of 26 stand-alone diesel plants in the territory's 25 communities; the territorial government spends \$200 million a year on diesel and is actively testing other forms of energy.¹⁰² Iqaluit "consumes approximately 50% of the diesel fuel of the entire territory." The sole reliance on diesel compromises communities that have no alternatives. The sole reliance on diesel compromises communities that have no alternatives.

Jordan Peterson described similar constraints in his region, the current reliance on diesel is costly in terms of effects on both the environment and human health, "Gwich'in communities have been actively pursuing renewable energy projects, including wind, biomass, and solar. There needs to be ongoing support for these kinds of infrastructure developments."¹⁰³

Renewable energy presents some opportunities for communities to be energy secure Nunatsiavut is interested in micro-grid hydro development to supplement its exclusive reliance on diesel. Madeleine Redfern emphasized that the "best option for energy for Iqaluit is hydro or...small modular reactors, something that Russia is doing and also industry is looking into in other parts of the Arctic region. The National Research Council has a national working group ...looking at [funding] a pilot phase."¹⁰⁴

Energy solutions being considered by industry may present opportunities for public private partnerships to deliver energy to the territory. Qulliq Energy Corporation built district heating systems connected to ten diesel plants which capture residual heat. Iqaluit recently received funds to expand its excess heat capture from its diesel generators to heat the city's Aquatic Centre. The Nunavik Research Institute is testing solar panels to see how the batteries will store energy in cold

¹⁰¹ Jeff Phillip, President, SSI Micro, Committee fact finding trip, Yellowknife, Northwest Territories, September 2018.

¹⁰² Iqaluit Chamber of Commerce, Committee fact finding trip, Iqaluit, Nunavut, September 2018.

¹⁰³ Deputy Grand Chief and Vice-President Jordan Peterson, Gwich'in Tribal Council, Committee fact finding trip, Yellowknife, Northwest Territories, 10 September 2018.

¹⁰⁴ Madeleine Redfern, Mayor of Iqaluit, *Evidence*, 22 October 2018.

climates and how the panels work in areas with snow accumulation. Inuvik is benefiting from investment in a wind farm and Agnico-Eagle's new Meliadine mine has plans to invest in wind energy. However, transitioning to renewable energy sources will not occur without greater investment in how these technologies can be adapted to the Arctic, particularly with regards to battery storage.

The wildfires and areas of deadfall in Yukon have increased First Nations use of biomass (woody fuels in particular). Chief Smith of Champagne Aishihik First Nations told the committee that this in turn has increased the First Nations' use of biomass for fuel. Other entrepreneurs have started businesses to offset northern communities' reliance on diesel. For example, Blair Hogan's company in Teslin, Yukon "helps communities access renewable energy opportunities"¹⁰⁵ by building biomass district heating systems which are in use in the Arctic regions of Scandinavian countries, his "three district energy systems offsetting half the community's diesel for space heating, people are now visiting us and they see an example of what a Scandinavian project could look like for them."¹⁰⁶

The committee acknowledges the important recommendations in the Standing Senate committee on Energy, the Environment and Natural Resources Report, *Powering Canada's Territories*, and therefore recommends:

8. That the Government of Canada ensure Arctic and northern communities have reliable and secure forms of energy, including renewable energy and alternates to diesel based on locally identified priorities and opportunities.

¹⁰⁵ Blair Hogan, President, Gúnta Business, The Gordon Foundation, *Evidence*, 27 February 2019.

¹⁰⁶ Blair Hogan, President, Gúnta Business, The Gordon Foundation, *Evidence*, 27 February 2019.

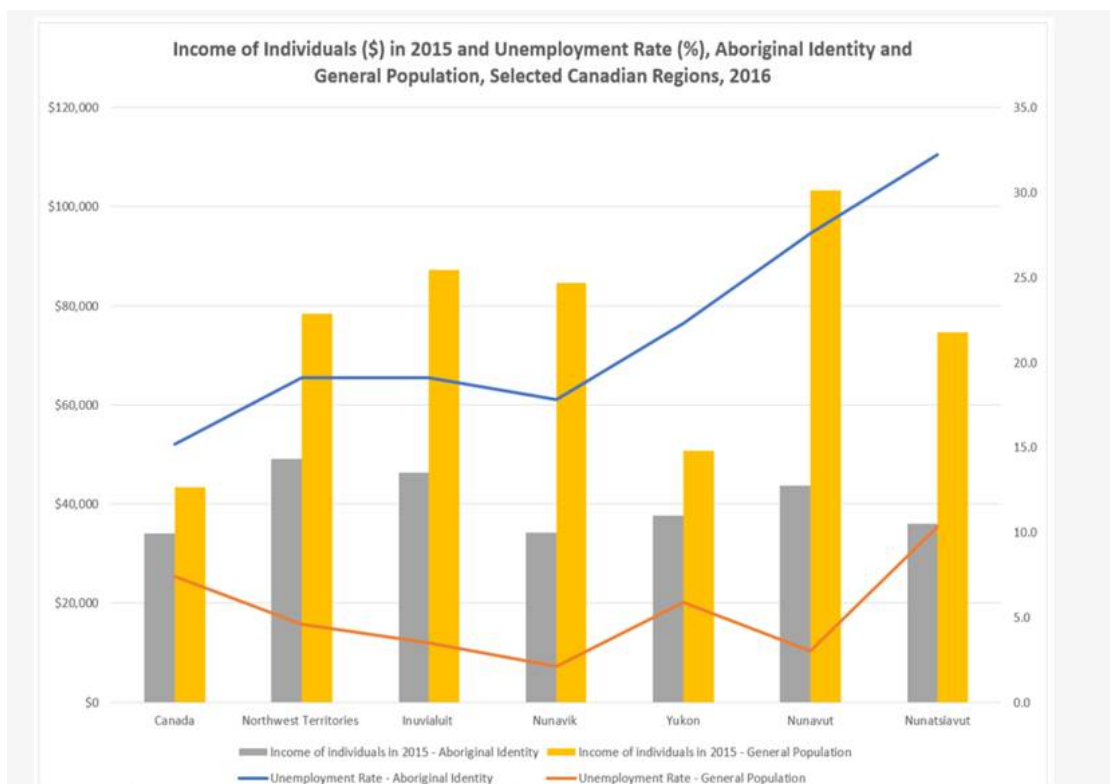
Education, Skills and Employment

A. Education Skills Gap

Witnesses raised education as an important driver for overall community success in every region of the Arctic. Education is an important precondition for greater opportunity and is a marker of community well-being. The committee heard from witnesses that there is a skills gap in the Arctic, whereby local employers struggle to find qualified workers for higher-skilled jobs while Indigenous peoples face higher unemployment rates and tend to occupy low-paying service jobs.¹⁰⁷

Educational attainment is strongly linked to higher incomes: as Indigenous peoples have lower rates of educational attainment than non-Indigenous peoples in the Arctic, they have significantly lower incomes and higher rates of unemployment.

Figure 4 - Income of Individuals and Unemployment, Indigenous identity and Selected Canadian Regions



Source: Statistics Canada. 2018. [Aboriginal Population Profile, 2016 Census](#). Statistics Canada Catalogue no. 98-510-X2016001. Ottawa. Released July 18 2018. Accessed on 2019-04-11.

¹⁰⁷ Mary Simon, [A new Shared Arctic Leadership Model](#), March 2017.

The skills gap is evident across the sectors, including the public and natural resources sectors. Lower levels of education impede access to many of the available positions. Representatives from the mining industry reported that internationally, Indigenous peoples occupy senior positions internationally, which is not the case in Canada.¹⁰⁸

Indigenous people in the Arctic continue to deal with the legacy of colonization making it difficult for some Indigenous workers to find meaningful employment. As such, community leaders underscored some may struggle with low self-esteem, inadequate housing leading to attendance or performance issues, and barriers to participating in the labour market such as the lack of child care and inadequate or supplementary services such as inadequate mental health supports or non-existent substance use treatment facilities in all of the regions except Nunavik.

B. Pathways to Post-Secondary Education

A concerted effort must be made to connect the education and training needs of Indigenous peoples to current and future employment opportunities. Given the anticipated growth of the resource sector in Nunavut, ensuring Inuit benefit from the development occurring on their lands is of critical importance.

The committee strongly agrees that “youth are the Arctic’s biggest asset to respond to a changing environment.”¹⁰⁹ Quality education depends on adequate funding, proper infrastructure and committed teachers who can respond to the distinct Indigenous language and cultural needs of students. The committee learned of several challenges and best practices from Arctic students, teachers, instructors and employers which will be discussed in the following section.

The committee heard from many students about the poor quality of education available in communities in the Arctic. The problem is compounded by a lack of academic instruction in communities, and the phenomenon of “social passing” where students are given passing grades even though they may not meet the requirements. As stated by Cindy Dickson, Executive Director, Arctic Athabaskan Council, “That’s absolutely correct. I know some students that can barely read, and they’ve been passed up through the grades.”¹¹⁰ Such factors mean that students’ pursuit of post-secondary education may be further limited.

¹⁰⁸ Mary Simon, *A new Shared Arctic Leadership Model*, March 2017.

¹⁰⁹ Sylvie Renaud, Canadian Northern Economic Development Agency, Iqaluit, Nunavut, Committee fact-finding trip, September 2018.

¹¹⁰ Cindy Dickson, Executive Director, Arctic Athabaskan Council, *Evidence*, 18 March 2019.



Students at Arctic College in Cambridge Bay with Senators Patterson and Bovey

Students described completing secondary school with high grades and not meeting the equivalency standards when assessed at southern post-secondary institutions. The committee met with Indigenous and non-Indigenous students at Aurora College in Inuvik who were in the process of upgrading their courses via basic adult education programs, so they could begin a college or university program.¹¹¹ As many students have to upgrade, they have to pay or use up to two years of financial assistance to complete basic adult education, which may limit their future academic studies.¹¹² Students in the Arctic are hampered by having to leave their communities, and the region, if they wish to attend university. There is no university in the Arctic region, though the committee was pleased to hear that Yukon College will soon transform into the first university in the north.

The Canadian Northern Economic Development Agency has a Northern Basic Adult Education Program which provides funds to the three northern colleges, Aurora College, Yukon College and Nunavut Arctic College. Courses are delivered in smaller communities via their networks of community learning centres, including the campus the committee visited in Cambridge Bay, Nunavut.

¹¹¹ Student roundtable, Aurora College, Inuvik, Northwest Territories, Committee fact finding trip, September 2018.

¹¹² Student roundtable, Aurora College, Inuvik, Northwest Territories, Committee fact finding trip, September 2018.

Closing the digital divide in making broadband telecommunications available in the Inuvialuit region has led to wide-scale improvements for students. While distance learning is no replacement for in person instruction, the region has brought academic instruction to students in small communities in the Inuvialuit region via distance learning. The program facilitates access to some of the “best teachers the North has to offer”¹¹³ with courses geared for students to attend university or college.

The course selection is varied, with “guest lecturers from universities, workshops on digital storytelling, hands on learning in science, math, social science, biology, connecting students in small communities with others throughout the territory.” In classroom monitors support student in person with organization, curriculum “an energetic and actively engaged monitor who is modeling proper behaviours in the classroom has been one of the greatest factors to the success of Distance Learning.”¹¹⁴ Since the start of the program, several Inuit students have gone onto attend university, one of whom is now pursuing her medical studies. As stated by one of the students in the program who now attending university, the Northern Distance Learning is important because “it is the only opportunity to take academic courses while staying in my community.”¹¹⁵

The committee was pleased to hear from representatives from Yukon College and to see recent federal investments to transform Yukon College into a university and encourages it to recruit students from across the Arctic. The Committee also acknowledges the collaboration announced between Nunavut Arctic College and Memorial University to help further develop post-secondary education in Nunavut. Students across the Arctic told the committee that place-based learning was of critical importance to their cultures, languages and overall success. Therefore, the committee recommends:

9. That the Government of Canada support Indigenous and/or territorial governments to:
1) increase funding for Basic Adult Education in the Arctic; 2) ensure students can pursue studies in their Indigenous language; and 3) support the Government of Nunavut to establish a university in the Eastern Arctic.

Growing a Local Workforce

A. Public Sector

The public sector is the largest employer across the territories in the Arctic. The *Nunavut Land Claims Agreement* (NLCA) between the Government of Canada and *Nunavummiut* includes specific measures to ensure there is an Inuit-representative workforce in the Government of Nunavut. Aluki

¹¹³ Frank Gallway, Superintendent, Beaufort Delta Education Council, Inuvik, Northwest Territories, Committee fact-finding trip, September 2018.

¹¹⁴ Frank Gallway, Superintendent, Beaufort Delta Education Council, Inuvik, Northwest Territories, Committee fact-finding trip, September 2018.

¹¹⁵ Frank Gallway, Superintendent, Beaufort Delta Education Council, Inuvik, Northwest Territories, Committee fact-finding trip, September 2018.

Kotierk observed that Inuit envisioned a territorial government where “we could continue to have our Inuit culture and language thrive.” Despite this vision, Nunavut Tunngavik Inc. reported its concern “that [Inuit] are not currently reflected” within the public government. Despite the target established by the NLCA for 85% of the Government of Nunavut’s staff to be Inuit, only half of the employees are “Concentrated at the lower and less skilled levels.”¹¹⁶ The economic costs to Inuit are enormous, and include lost wages, an inability to deliver services in Inuktitut and the critical lack of Inuit influence over policy and program design for the territory.

Since the conclusion of the NLCA, Inuktitut use has declined at a rate of 1% a year in Nunavut. Aluki Kotierk stated this was connected to the Government of Canada’s decision at the conclusion of the NLCA not to support Inuktitut as the “working language of our territorial government ... [As a result] Inuit are not receiving essential public services of a reasonable quality because they are not being delivered in Inuktitut.”¹¹⁷ She urged the committee to support the implementation of Article 23 of the NLCA, along with other provisions of the treaty which remain unresolved.

With many positions available in the territory, those “Nunavummiut have increasing choices in employment. Inuit with skills and job experience are in high demand”.¹¹⁸ The situation is compounded by the relatively higher levels of unemployment of Inuit in the territory due to lower levels of educational attainment. Virginia Mearns, Associate Deputy Minister, Executive and Intergovernmental Affairs, Government of Nunavut, outlined some of the specific measures taken to narrow the skills gap to build an Inuit-representative workforce in the territory. For those with lower skill levels, the government invests in pre-employment training to prepare *Nunavummiut* for specific occupations in the public service and establishes plans for on-the-job training, mentorship and arranges youth internships.

Financial support is provided to train Inuit in professional fields like law, health and education to meet the long-term goals of Inuit delivering public services in the territory. Virginia Mearns noted improvements in broadband telecommunications infrastructure would mean that the territory would be in a position to offer training at a reduced cost to more people.

B. Private Sector

Strengthening Indigenous peoples’ participation in the mining sector was raised as an important condition of the mines operating on Indigenous peoples’ lands. Indigenous leaders reflected on the importance of corporate social responsibility, and in doing business with industry that understands the importance of balancing environmental protection along with staged economic growth. The committee learned of investments in on the job training in the trades that has led to more Inuit assuming roles in all aspects of production in mining. The committee visited the community of Baker Lake, Nunavut and the Meadowbank gold mine operated by Agnico Eagle located on Inuit lands north

¹¹⁶ Aluki Kotierk, President, Nunavut Tunngavik Inc., *Evidence*, 26 March, 2018.

¹¹⁷ Aluki Kotierk, President, Nunavut Tunngavik Inc., *Evidence*, 26 March, 2018..

¹¹⁸ Virginia Mearns, Associate Deputy Minister, Executive and Intergovernmental Affairs, Government of Nunavut, *Evidence*, 26 February 2018.

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of Baker Lake in the Kivalliq region. The company is expanding its operations in the region, with the identification of additional deposits in the region. The new mine sites, Amaruq and Meliadine, are expected to be in operation in 2019.

The Kivalliq Inuit Association entered into an Inuit Impact and Benefits Agreement with Agnico Eagle that has specific goals to achieve with respect to training, employment and related benefits for Inuit. Part of these commitments has meant Agnico Eagle developed specific programs to reach out to prospective workers starting in secondary school with Inuit employees promoting careers in the sector. The mine operates a Rapid Inuit Specific Education program which provides on-the-job training and apprenticeships to obtain certifications to work in higher skilled and supervisory positions.



Local Artist and entrepreneur, Cambridge Bay

The committee met with several Inuit employees who occupy different positions at the mine, from heavy equipment operators to human resources professionals. Through on the job training, for example, one can start in an entry level position at the mine and earn the certification to work as a heavy equipment operator in a shorter timeframe rather than the average of 15 years in southern Canada.¹¹⁹ Additionally, an on-the job pairing program matches employees to grow skills readiness to assume future supervisory positions at the mine. Agnico Eagle produces reports on Inuit employment as a condition of the company's certification to operate in the Kivalliq region, in 2018 out of 2,400 employees, more than 500 are Inuit the company invested \$8 million in training and development with the goal to have the mines 100% staffed by a local workforce in the future.¹²⁰

Training in communities and at the mine site can bring about higher employment rates for Inuit. The Nunatsiavut Government has had an Impact and Benefits Agreement in place since 2002 with the Voisey's Bay mine. As part of the agreement, training was offered directly in the Nunatsiavut communities like mill operator certification with an on-site component in the mine to "bring people into the site to see what the site is like and actually experience it before you take a job."¹²¹ The Nunatsiavut Government reports that they have started to see Inuit in senior management positions, in charge of the mine site and mill operations.¹²²

Other mines have not achieved targets established for Indigenous employment. A recent report on Mary River Project Mine's proposed expansion in Nunavut noted that Inuit will not be in a position to benefit from employment if mining scales up too quickly as there is not enough time to build sufficient capacity.¹²³

C. Conservation Sector Opportunities

As noted in Mary Simon's 2017 report, there are many well-paying jobs in the Arctic, and locals do not necessarily have the skills to assume them. She observed that an Indigenous-led conservation economy builds on the strengths and capacities of Indigenous peoples and governments by supporting harvesting, marine and land stewardship. Furthermore, Qikiqtani Inuit Association observed that the conservation economy is connected to greater food sovereignty for Inuit and has the added benefit of strengthening culture and language.

Across the Arctic, the committee met with students pursuing post-secondary studies in environmental management conservation or who were employed at research institutes, such as at the Nunavik Research Institute or studying at Dechinta Centre for Research and Learning. In Cambridge Bay, the committee met with two women who were students in the environmental technology program at Nunavut Arctic College. Many careers are open to them, even prior to

¹¹⁹ Agnico Eagle Mines Limited, Committee fact finding trip, Nunavut, September 2018.

¹²⁰ Patrice Gilbert, Vice-President, Health and Safety and Community, Agnico Eagle Mines Limited, *Evidence*, 1 April 2019.

¹²¹ Isabelle Pain, Deputy Minister, Nunatsiavut Secretariat, Nunatsiavut Government, *Evidence*, 23 April 2018.

¹²² Isabelle Pain, Deputy Minister, Nunatsiavut Secretariat, Nunatsiavut Government, *Evidence*, 23 April 2018.

¹²³ Loxley, John, *Assessment of the Mary River Project: Impacts and Benefits*, February 2019, submitted by Ocean's North.

completing their certificates, due to high demand in the sector. One of the students mentioned she became interested in the program after her father had completed it, as it allows her to spend time on the land and builds on the strength of her culture. Funding from the Government of Nunavut enables students to bring their families with them to complete their studies. Instructors at Nunavut Arctic College explained some of the challenges that students face, such as basic adult education upgrading and trades are not defined as post-secondary, making students ineligible for funding.

Youth across the Arctic stressed that they need education of the same quality as other Canadians, and that is relevant to the cultures and languages of the Arctic. One student who studied at Dechinta Centre for Research and Learning in the Northwest Territories which provides academic instruction and hands-on learning based on Indigenous cultures, values and languages recommended an Indigenous-led university would be beneficial for the Arctic.¹²⁴ The committee recognizes that several reports raise this matter, including Mary Simon's 2017 report, which urged for broad investments in education, starting in early childhood, and to adapt existing federal skills and training programs to Arctic realities.

It was recommended by several witnesses that broad measures to align education and training initiatives to occupational demand will support the economic expansion of the region so that the economies of the Arctic provide work for its residents. As the Government of Canada invests in labour force capacity through several departments, including Innovation, Science and Economic Development Canada and Employment Training for Indigenous Peoples at Employment and Social Development Canada, the committee therefore recommends:

10. That the Government of Canada, in partnership with Indigenous and territorial governments, build upon and support existing territorial education and labour force strategies based on Arctic peoples' priorities and needs, to decrease the reliance on southern workers.
11. That Employment and Social Development Canada and Innovation, Science and Economic Development Canada: 1) immediately adapt its skills and employment programs to the educational attainment and labour force realities of the Arctic; 2) with Indigenous and territorial governments, use data to better target federal investments in post-secondary education and training to Arctic peoples' priorities and the labour market to meet the needs of this generation of Arctic youth; and 3) invest in post-secondary education and training in such areas as trades, arts and conservation sectors, or other priorities as identified by northerners.

¹²⁴ Dechinta Centre for Research and Learning, Yellowknife, Northwest Territories, Committee fact finding trip, September 2018.

CHAPTER 2 - CULTURE AS A PATHWAY TO STRONG AND HEALTHY COMMUNITIES

*Inuit have lived on the sea, ice, land and water for generations.*¹²⁵

The land in the Arctic is the foundation of Indigenous culture and languages; a source of spirituality, sustenance, pride and identity. Many witnesses observed that the Arctic lands, ice, seas, marine and wildlife resources are rapidly changing, which means that cultural practices have had to adapt. As shared by Bernadette Dean, Chair, Inuit Broadcasting Corporation, any hunter-gatherer society is flexible and adaptable, as the ability to respond quickly to changes in the geographic or cultural environment has been essential to their survival.¹²⁶

Culture is Healing

Culture is a necessary part of community-based efforts to heal from the legacies of the past. Indigenous cultural knowledge and practices are a “strong protective factor for community wellness”¹²⁷:

*In our work with [E]lders, we have been told that the purposes of beliefs and cultural practices that served Inuit for thousands of years do not change with time. If we can reclaim them, they can become strengths for Inuit today, just as they were in the past.*¹²⁸

From the early days of its relationship with Indigenous peoples in the Arctic, Canada was coercive and intrusive, and the lingering effects of federal policies contribute to the social and health challenges faced by Indigenous peoples in the Arctic today. Witnesses before the committee maintained that the consequences of forced relocation and settlement, dog slaughter, residential schools and taking people south for tuberculosis treatment cannot be understated. As Honourable Paul Aarulaaq Quassa explained:

*[T]he lives of the Inuit were forever changed by the policies and programs that took Inuit from their homes, denying them their language and culture, placing them in unfamiliar lands and communities, and separating them from a way of life they had always known. Many of us lost our language, our culture, our traditions, which is, of course, our identity. Many struggled with trying to reconcile the ways of the past and their present. Many turned to alcohol and drugs, to violence or to suicide or have been profoundly impacted by these actions, and many today are still struggling in these ways.*¹²⁹

¹²⁵ Hon. Charlie Watt, former senator, President, Makivik Corporation, *Evidence*, 26 March 2018.

¹²⁶ Bernadette Dean, Inuit Broadcasting Corporation, Supplementary document submitted to the committee, 4 February 2019.

¹²⁷ Shirley Tagalik, Director, Aqqiumavvik Society, *Evidence*, 1 April 2019.

¹²⁸ Shirley Tagalik, Director, Aqqiumavvik Society, *Evidence*, 1 April 2019.

¹²⁹ Honourable Paul Aarulaaq Quassa, Premier of Nunavut, Government of Nunavut, *Evidence*, 26 February 2018.



Oviloo Tunnellie (Canadian (Cape Dorset), 1949-2014), *Nurse with Crying Child*, 2001, serpentine, 25.7 x 15.6 x 9.5 cm, Collection of John and Joyce Price, Photograph: Ernest Mayer, courtesy of the Winnipeg Art Gallery

Indigenous peoples were encouraged to move to settlements by the Government of Canada, a move that changed the structure of Indigenous peoples' lives and their relationship to their traditional territories. While the land is a source of healing, settlements were often seen as a source of many problems, due to the swift pace of moving from a nomadic society to life in towns, often spanning only a decade.¹³⁰ "It is often forgotten that present-day settlements are the result of a sedentarization process that took place between the 1950s and the 1970s."¹³¹

The sites of settlements have led to contemporary problems. Madeleine Redfern explained when the federal government selected the sites of permanent settlements in Nunavut, factors such as the availability of "water, expandability for growing populations, transportation and good hunting" were not taken into account. More than half of the hamlets in Nunavut continue to have water quality issues, a by-product of federal decisions taken several generations ago.

Colonization and assimilation disrupted culture and language and the effects persist within family relationships and the slow decline of the use of Indigenous languages at home. Leaders across the Arctic were clear that the Government of Canada must address the legacy of colonialism – "pressing social issues such as suicide, mental health, alcoholism and addiction, [and] the erosion of language and culture" – with community-led solutions.¹³²

These challenges cannot be left to local, Indigenous and territorial governments in the Arctic to resolve. While there is no one simple measure that can "remedy the social and economic inequity that many of the residents of the Arctic are facing"¹³³, significant resources and investments are required based on the needs and solutions identified by Indigenous communities and governments.¹³⁴

¹³⁰ Claudio Aporta, Director, Marine Affairs Program, Dalhousie University, *Evidence*, 1 April 2019.

¹³¹ Claudio Aporta, Director, Marine Affairs Program, Dalhousie University, *Evidence*, 1 April 2019.

¹³² Johannes Lampe, President, Nunatsiavut Government, *Evidence*, 23 April 2018; Hon. Charlie Watt, former senator, President, Makivik Corporation, *Evidence*, 26 March 2018; Isabelle Pain, Deputy Minister, Nunatsiavut Secretariat, Nunatsiavut Government, *Evidence*, 23 April 2018.

¹³³ Duane Wilson, Vice President of Stakeholder Relations, Arctic Cooperatives Limited, *Evidence*, 25 September 2018.

¹³⁴ Honourable Paul Aarulaaq Quassa, Premier of Nunavut, Government of Nunavut, *Evidence*, 26 February 2018.

The interconnected nature of the social determinants of health mean they must be approached in a holistic fashion and not siloed by government departments. Addressing food insecurity and hunger, housing shortages and overcrowding, income inequality and poverty, and lack of access to culturally safe health, education and social systems must be the priorities of all governments, so that children born today will live in a healthier society tomorrow. Therefore, the committee recommends:

12. That the Government of Canada, with Indigenous, territorial and local governments, take immediate measures to address the social determinants of health that takes into account Indigenous norms, values and languages in the Arctic and northern regions with specific investments, goals and measurable outcomes reported annually to both houses of Parliament.

Protecting Indigenous Ways of Life

In response to increasing outside interest in the resources of the Arctic and northern regions, in the 1970s Indigenous peoples organized to have their inherent rights to the lands and waters of their traditional territories protected. Retention and promotion of languages and cultures have always been at the forefront of the struggle for such rights. Together, the constitutionally-protected comprehensive land claims agreements cover parts of Yukon, the Northwest Territories, Labrador and all of Nunavut. These agreements intend to improve the social, cultural, political and economic health of Indigenous peoples, are protected by the *Constitution Act, 1982* and were negotiated to ensure “our Inuit culture and language thrive.”¹³⁵

¹³⁵ Aluki Kotierk, President, Nunavut Tunggavik Inc., *Evidence*, 26 March, 2018.



Country food: Nancy Aptanik harvesting caribou in Baker Lake

Governance structures, like public land and resource co-management boards, were established by the land claims agreements and operate for the benefit of all Canadians. The agreements also set out obligations for the Government of Canada to fulfil, such as support for vibrant cultures and languages across communities in the Arctic.

Agreements provide jurisdiction over lands and resources, harvesting rights, environmental management, parks and conservation areas, social and cultural enhancements, infrastructure and self-government or public governments. Central to this chapter, comprehensive land claims agreements also contain provisions regarding the protection and promotion of Indigenous languages and cultures and for social and cultural programs and services that create space for the expression of language and culture.

Comprehensive land claims agreements implementation must be the cornerstone of the Arctic and Northern Policy Framework. To northern Indigenous peoples, strong and healthy communities hinge upon the ability to harvest, hunt and fish, providing food for families and land-based skills development. All of these measures strengthen communities.

Several witnesses raised promising practices related to land, culture and language arising from the settlement of comprehensive land claims agreements. Torngat Mountains National Park is the first park in Canada co-managed between Inuit in Nunavik and Nunatsiavut, respecting the rights and

knowledge systems of Indigenous peoples, by “incorporating the Indigenous history and cultures into management practices.”¹³⁶ The first priority of Nunavik and Nunatsiavut Inuit was to bring Elders and youth back to their homeland in northern Nunatsiavut. Youth learned leadership skills, language and traditional knowledge, “to ensure that knowledge and traditions are passed on to them...it empowers our youth.”¹³⁷ However, the Nunatsiavut Government has been unable to offer the program in Torngat Mountains National Park for the past two years due to costs. Instead, the government has identified other sites in Nunatsiavut where language and land-based education will be offered closer to Inuit communities.

With base camp established just outside of the park, Inuit tour operators and guides bring tourists to the area, and the “story we tell in the park is an Inuit story.”¹³⁸ An increasing number of visitors are visiting the park year to year but the costs to operate the park, including shipment of fuel and food is high, due to the remoteness of the area and the underbuilt infrastructure in the region.

Several witnesses raised the importance of connecting Elders with younger generations on the land to pass on their knowledge. Shirley Tagalik discussed the importance of Elders’ deep relationship with the land as healing. She cited discussions she had with incarcerated men who stated that practicing their culture on the land would have prevented their incarceration.¹³⁹ Spending time on the land as a community-based environmental and wildlife monitor helps people recover from addictions and trauma. As shared by Valerie Courtois, of the Indigenous Guardians Initiative,

*We need to be back on the land. That’s where our healing and identity will come from, and that is where our relationship with the rest of Canada and Canadian[s] is really emerging from. It is that very personal on-the-land relationship.*¹⁴⁰

Indigenous government representatives who appeared before the committee rely on hunters and trappers organizations’ expert knowledge to regulate and manage harvesting practices and economies. Nunavik Furs, a cooperative established by Makivik Corporation, generates income for about 40 local hunters and trappers to offer a local source of fur to community members to produce clothing and art. The cooperative sets the price for furs for hunters and trains new hunters to clean and cut the hides. In another example, the Gwich’in Tribal Council explained that local hunters and trappers’ organizations have key roles to play in treaty implementation, connecting land-based activities like harvesting to language revitalization initiatives. As such, the Gwich’in Tribal Council ties greater treaty implementation funding to “balanced development in the North that supports and contributes to revitalization of the traditional economy.”¹⁴¹

¹³⁶ Gary Baikie, Superintendent, Torngat Mountains National Park, Parks Canada, *Evidence*, 19 November 2018.

¹³⁷ Gary Baikie, Superintendent, Torngat Mountains National Park, Parks Canada, *Evidence*, 19 November 2018.

¹³⁸ Gary Baikie, Superintendent, Torngat Mountains National Park, Parks Canada, *Evidence*, 19 November 2018.

¹³⁹ Shirley Tagalik, Director, Aqquimavvik Society, *Evidence*, 1 April 2019.

¹⁴⁰ Valerie Courtois, Director, Indigenous Leadership Initiative, *Evidence*, 4 February 2019.

¹⁴¹ Committee fact finding trip, September 2018, Yellowknife, Jordan Peterson, Gwich’in Tribal Council.

Art, Culture and Identity

When we think about art and its importance, language and culture are integrated into art. Art is a voice for culture and for language.¹⁴²

Art, culture and languages of Arctic peoples have made significant contributions to Canada's social fabric. Art and cultural practices can educate and inform and tell the stories of communities and individuals, strengthen language and build healthy identities. The committee heard from different artists and collectives about the importance of art, traditional games, stories, song and dance in the Arctic and northern regions.

Performing artists like the Inuit collective Qaggiavuut!, work with Elders to reclaim and learn of Inuit stories that may have been lost or undermined:

[O]ur artists talk about what was lost during colonization. One of the great collateral damages of colonization was the loss of songs and stories, how the elders were made silent, how they felt unsafe to sing their songs, unsafe to tell their stories because they were considered shamanic by the missionaries. Quickly, often in one generation, a whole library of songs and stories has been lost and, with these, the language, the values, the spirituality and the history of the Inuit. ... We are working hard and urgently right now at Qaggiavuut! to document the last remaining knowledge keepers, to train younger artists to come bring them together with the elders to learn the songs and the dances. In the last few years, we've now documented and filmed 100 songs and stories, trying to capture them before they're lost forever.¹⁴³

In the late 1990s, following the suicide of two teenagers in Igloodik, Artcirq, an Inuit circus performance collective, was formed for youth to learn ways to express themselves. Artcirq links traditional Inuit culture with modern artistic practices, enhancing the self-esteem of participants. Artcirq has since established a studio called Black Box, based on a model from Greenland, and offers programs six days a week for youth in the community.

Jimmy Awa Qamukaq of Artcirq spoke about the importance of Artcirq's programs in teaching moral traditions, keeping Inuktitut language strong and in showing youth where they come from. He shared with the committee the importance of the arts in keeping traditions alive:

[C]onserving Inuit games. It is one of the main points that we want to keep going, because during Qaggiq, every year there is a gathering for us to celebrate the return of the sun. For us, keeping sports strong is like cultural differences. Competition is important. It keeps our bonds very strong. The sports we have will keep us alive during the hunting times, and also prove to one another we

¹⁴² Renelta Arluk, Artistic Director and Founder, Akpik Theatre, [Evidence](#), 4 February 2018.

¹⁴³ Ellen Hamilton, Qaggiavuut!, [Evidence](#), 4 February 2018.

*are strong together and can help each other out. Artcirq, it's not just traditional and modern. It has a lot more meaning. We exchange cultures and collaborate.*¹⁴⁴

The committee heard from William Huffman, of Dorset Fine Arts, about the prolific work of artists who belong to the West Baffin Eskimo Co-operative in Cape Dorset, Nunavut. Over 60 years of operation, the Co-operative has created and maintained a distribution platform for Inuit visual art, bringing the Arctic to Canada and the world. In addition to supporting artists through salaries, marketing and copyright, the Co-operative, with the support of governments and private donors recently opened the Kenojuak Cultural Centre, a community gathering hub, exhibition space and a place for artists to produce their work. The Centre's first installation was an exhibition of work by Kenojuak Ashevak, which will travel to other venues in Canada, "the first time an exhibition of this scale has been curated in the Canadian Arctic and circulated to venues across the country."¹⁴⁵

A. Supporting Inuit Media

By the 1970s, changes were occurring among communities, with language and culture from the south being introduced to Arctic communities by way of new media:

*[T]he arrival of television in the Arctic, with its capacity to flood every living room in the Arctic with images and languages from the consumer-driven south, represented a unique and potentially devastating threat to a culture already reeling from the impact of trade, education and religion.*¹⁴⁶

Inuit and community leaders realized there was an opportunity for Inuit to find a way of using television as a vehicle for the protection of language and culture. The Inuit Broadcasting Corporation was founded to produce shows in Inuktitut and funded through a federal program now called the Northern Aboriginal Broadcast Program. The positive impacts are numerous, including training and capacity building of Inuit to work in media and produce series and grow their careers in storytelling through film. Bernadette Dean explained,

*The Inuit language, like many other Indigenous languages, is rooted in oral traditions and oral storytelling. It has transitioned really well with film and television due to being rooted in that oral tradition. I want to mention that one of Canada's greatest filmmakers, Zacharias Kunuk, started his career [at Inuit Broadcasting Corporation].*¹⁴⁷

The artist collective Isuma, founded in 1990 by Zacharias Kunuk, Norman Cohn, Paul Apak Angilirq (1954-1998), and Pauloosie Qulitalik (1939- 2012), works to preserve Inuit culture and language and to present Inuit stories to Inuit and non-Inuit audiences around the world. Isuma hosts content from

¹⁴⁴ Jimmy Awa Qamukaq, Vice President, Acrobat/Clown and Chief Coordinator, Artcirq, *Evidence*, 4 February 2018.

¹⁴⁵ William Huffman, Marketing Director, West Baffin Eskimo Cooperative, *Evidence*, 19 November 2018.

¹⁴⁶ Bernadette Dean, Inuit Broadcasting Corporation, *Supplementary document submitted to committee*, 4 February 2019.

¹⁴⁷ Bernadette Dean, *Evidence*, 4 February 2019.

IBC and its artists helped to establish Artcirc. Isuma recently represented Canada at the Venice Biennale and is the first presentation of art by Inuit in the Canada Pavilion.

TV and film has created children's programming for language acquisition, importantly to Inuit and other children, and shared the knowledge of Elders by broadcasting their stories which helps to preserve cultural knowledge. Specific proposals were made by Inuit Broadcasting Corporation to support this important work such as dedicated funding to strengthen archival collections of its materials and to digitize collections.

The committee also heard from Taqqut Productions, an Inuit-owned company that focuses on educational and children's productions. Founded by educators, it produces Inuktitut television series, in recognition that southern television has had an effect on the loss of language and culture. Creating Inuit content for children is important, as "It is in childhood that we learn foundational literacy skills, develop sets of values to take us through our lives, and develop cultural identity as a person."¹⁴⁸

Inhabit Media is the sister company of Taqqut, publishing books primarily in Inuktitut and English, focused on Nunavummiut authors. With seed subsidies from the Canada Council for the Arts, Inhabit Media has been able to maintain 300 books in print and sees significant interest from the international market for Inuktitut publications. Representatives from both Inuit Broadcasting Corporation and Taqqut Productions highlighted the need for continued investment in the production of series, as it grows the capacity for Inuit to work in media and provides full time work over multiple years.

The committee recognizes there is a lack of equal access to funding for the arts, heritage and language for artists in the Arctic. Witnesses stated multi-year, flexible funding was important to support organizations and sustain businesses in the Arctic, and the committee therefore recommends:

13. That Canadian Heritage: 1) increase its investments in the Northern Aboriginal Broadcasting Program and 2) extend multi-year, flexible funding specific to Arctic recipients so they can produce content in the Indigenous language of their choice.

B. Federal Programs for Art and Culture

The Government of Canada has several institutions and programs in place to support artistic practices and showcase cultures, languages and the arts of Canada. The committee heard from the Winnipeg Art Gallery, the Canadian Museum of History and Canada Council for the Arts. Together, the national institutions hold important collections of Inuit, First Nations and Métis art along with

¹⁴⁸ Neil Christopher, Producer and Director, Taqqut Productions, *Evidence*, 4 February 2018.

historical collections of functional items like sleds and parkas. The Winnipeg Art Gallery has the world's largest collection of contemporary Inuit art. It also has the Government of Nunavut's entire fine art collection on loan and is building an Inuit Art Centre to showcase these collections.

Central to the Gallery's plans are to feature Inuit art, and to enable "peoples from the North and South to meet, learn and work together."¹⁴⁹ Plans are to host virtual exhibitions for schools across the north, offering training in cultural studies for Inuit youth. The Gallery is a partner with the University of Winnipeg and Concordia University to "bring more Inuit into careers as arts workers", with training to be offered between Winnipeg and northern communities. The inaugural exhibitions will be led by an all-Inuit curatorial team representing all regions of *Inuit Nunangat*.¹⁵⁰

The committee also heard from the Canada Council for the Arts, the national funding institution for the production of art and the study and enjoyment of the arts in Canada. The Council has a program called Creating, Knowing and Sharing: The Arts and Cultures of First Nations, Inuit and Métis peoples. The Council provides a range of grants and services to artists in Canada in music, theatre, writing and publishing, visual arts and dance. The organization changed its programming structure in the last several years, relying on on-line applications for funding, previously it had a dedicated funding stream for northern artists.¹⁵¹

The Canadian Museum of History noted it is working with Indigenous communities to respond to the archaeological sites in the Arctic being washed out to sea due to coastal erosion. Recent exhibitions on the fate of the 1845 Franklin expedition saw the museum relying upon research and accounts by Nunavut Heritage Trust and the Government of Nunavut to tell the story. The museum has started thinking about how to share its collection, amassed over a century, with northern communities, "once there are venues equipped with the environmental conditions required for safely displaying fragile materials."¹⁵²

¹⁴⁹ Winnipeg Art Gallery, Supplementary document submitted to committee.

¹⁵⁰ Winnipeg Art Gallery, Supplementary document submitted to committee.

¹⁵¹ Simon Brault, Director and Chief Executive Officer, Canada Council for the Arts, *Evidence*, 4 February 2019.

¹⁵² Karen Ryan, Curator, Northern Canada, Canadian Museum of History, *Evidence*, 4 February 2019.



Mary K. Okheena (Canadian (Ulukhaktok), b. 1957), *They Sang Grampa's Song and I Danced*, 1998, stencil on paper, Co-op Proof 3/3, 50.8 x 65.4 cm, Image: 36.8 x 54.7 cm, Collection of the Winnipeg Art Gallery, Gift of Holman Eskimo Co-operative, 2000.161

Photograph: Lianed Marcolletta, courtesy of the Winnipeg Art Gallery

Avataq Cultural Institute, established by the Elders of Nunavik in 1980, has a large archive of interviews, photos, drawings, artifacts and prints from Nunavik stored in Montreal. They also have a significant art collection transferred from the former Department of Indian and Northern Affairs, in the 1980s. As stated by Rhoda Kokiapik, due to the lack of space in Nunavik, “These pieces are stored in a climatized space in Montreal. I hope one day we will be able to transfer them to Nunavik. The reason we don’t keep them in Nunavik is we don’t have a facility to store them safely.”¹⁵³

While the art produced in the Arctic is highly valued in Canada and overseas, most of the visual art is held by southern institutions, limiting community members’ ability to experience this aspect of their culture first-hand. Alysa Procida of the Inuit Art Foundation observed that having most of the art of the north held by southern institutions is “a bit odd”, adding “I can see more Inuit art in Toronto than necessarily when I go to a community in *Inuit Nunangat* depending on the day because so much of it leaves.”¹⁵⁴

The committee believes multi-use cultural hubs and infrastructure are important places for learning, creating and healing, particularly in Arctic communities where infrastructure development has been neglected. Communities emphasized the importance of spaces where different generations can connect, speak their languages and practice their culture. Therefore, the committee recommends that:

14. The Government of Canada, in close collaboration with local, Indigenous and territorial governments, support the development of multi-use community centres for the practice of arts, culture and language.

C. Supports for Emerging Artists

With the arts economy providing an important source of income to nearly half of some community members in *Inuit Nunangat*, there is great potential for the arts to continue to grow with proper supports in capacity.

Alysa Procida discussed the importance of supports for emerging and established artists from the Arctic. The Inuit Arts Foundation provides direct support to artists in portfolio development, writing biographies and CVs, and provides awards and scholarship programs. In 2017, it took over the management of the Igloo Tag Trademark from the Government of Canada, the only such trademark protecting Indigenous art in Canada. The Trademark helps protect Inuit visual arts from counterfeits and adds value to art produced under the trademark. The West Baffin Eskimo Cooperative also

¹⁵³ Rhoda Kokiapik, Executive Director, Avataq Cultural Institute, *Evidence*, 4 February 2019.

¹⁵⁴ Alysa Procida, Executive Director and Publisher, Inuit Art Foundation, *Evidence*, 19 November 2018.

provides supports to artists through the supervision of the use and copyright of artwork, finding residencies for artists in other studios, mentorships, supplying materials, wages and other supports.

Witnesses suggested that online applications for grants is challenging for artists in the Arctic due to limited broadband access. Furthermore, Natan Obed highlighted that developing successful grant applications in English may be difficult for any artist. Witnesses suggested that federal programs should be locally delivered in the Arctic to provide better support to artists in communities, in their Indigenous languages. Therefore, the committee recommends:

15. That the Government of Canada and the Canada Council for the Arts work with Indigenous and Arctic arts organizations, to provide local outreach to Arctic and northern artists, including specific supports to emerging artists in such areas as building capacity to apply for grants and to exhibit their work.

CHAPTER 3: SCIENCE, INDIGENOUS KNOWLEDGE AND ENVIRONMENTAL CONSERVATION

*The next step in the evolution of scientific practice in the Arctic is linking community-driven Arctic research priorities with national policy development to ensure scientific investments benefit communities and answer key questions facing the Arctic.*¹⁵⁵

With the above words, Mary Simon, the Minister of Indigenous and Northern Affairs' Special Representative on Arctic Leadership, summarized the required evolution of Arctic research as envisioned by Arctic residents. In the context of rapid changes taking place in the region, this view was also conveyed to the committee by many witnesses.

Climate change is arguably the single greatest challenge facing the Arctic and its residents. Therefore, understanding the climate change impacts on the Arctic's ecosystem, including traditional food sources, and infrastructure, including ice roads and sea ice used as highways by Inuit, requires strong research capacity. Such a research capacity is essential not only to increase community sustainability but also to prepare Arctic residents for tourism and resource development opportunities presented by climate change.

However, for this capacity to be efficient, impactful, and useful, research must be carried out in partnership with local communities and allows for the respectful incorporation of Indigenous knowledge. The conduct of research must also be sensitive to the reality that Arctic residents are already highly researched and community members often express that they feel research fatigue when discussions about research arises.

Arctic Communities' Knowledge Needs

A. Increasing Community Sustainability

Nancy Hamzawi told the committee that the decline in Arctic sea ice thickness and extent (Figure 5), along with changes in the timing of ice melt, are affecting marine ecosystems and biodiversity; leading to changes in diet among marine mammals; and altering predator-prey relationships, habitat uses, and migration patterns.¹⁵⁶ Norma Kassi also indicated that terrestrial ecosystems are feeling the effects of changes in precipitation, snow cover, and the frequency or severity of wildfire.¹⁵⁷ The occurrence of rain-on-snow and winter thaw/refreezing events affect grazing animals by creating an

¹⁵⁵ Mary Simon, "[Research and Indigenous Knowledge](#)," Part 1 in *A New Shared Arctic Leadership Model*, March 2017.

¹⁵⁶ Nancy Hamzawi, Assistant Deputy Minister, Science and Technology Branch, Environment and Climate Change Canada, [Evidence](#), 29 October 2018.

¹⁵⁷ Norma Kassi, Co-Founder and Director of Indigenous Collaboration, Arctic Institute of Community-Based Research, [Evidence](#), 20 March 2019.

ice barrier over lichens and moss. These observations are consistent with findings from the 2019 Canada's Changing Climate Report.¹⁵⁸

Figure 5 – September Arctic Sea Ice Extent



Source: Map prepared by Library of Parliament, Ottawa, 2019, using data from [Natural Earth](#), *1:50m Cultural Vectors*, version 4.1.0; and F. Fetterer et al., *Sea Ice Index*, Version 3, “Monthly Sea Ice Extent Images”, NSIDC: National Snow and Ice Data Center, Boulder, Colorado, 2017 (accessed November 2018). The following software was used: Esri, ArcGIS PRO v. 2.1.0.

¹⁵⁸ Government of Canada, *Canada's Changing Climate Report – Executive Summary*, 2019.

Climate-driven environmental changes have profound implications for Arctic community sustainability. For example, travel and hunting on ice may be hampered and safety compromised with later ice freeze-up and earlier breakup. According to Larry Hinzman, reduced sea-ice extent also has impacts on the abundance, migration, seasonal distribution, and composition of key commercial fish, marine mammals, and seabirds, resulting in shortages of traditional country foods.¹⁵⁹ Gerald Inglangasuk described the anxiety of the Inuvialuit regarding climate change impacts on their food security with these words:

*Our culture is strong and resilient, and the people harvest country food such as Arctic char, seals, beluga whales, caribou, muskox and other country foods to feed their families and communities. We are on the land. We see what's happening. We see what has been occurring in the Arctic, and we are concerned about the future.*¹⁶⁰

Thawing of ice-rich permafrost and increased coastal erosion also threaten coastal settlements, risking damage to the already deficient infrastructure, including road networks used for travel and transport, and for access to traditional food sources.¹⁶¹ Therefore, to increase their community sustainability, Arctic residents require effective responses to their knowledge needs regarding environmental changes that are affecting their day-to-day lives:

*...we are in a time of such profound change that these iconic fish [Pacific salmon, Arctic char, and Atlantic salmon] that are each representative of Canada's three coasts are not only in the same ocean, but they could actually be caught in the same net set by an Indigenous fisher harvesting food. This means that increasing abundances and wider geographic occurrences of salmon in the Arctic is a tangible example of climate change. The people in the Arctic are on the front lines of this change. When a strange fish shows up that leads to questions: What is it? Where did it come from? What does it mean for the fish that I usually rely upon? Can I eat it?*¹⁶²

¹⁵⁹ Larry Hinzman, President, International Arctic Science Committee, *Evidence*, 1 April 2019.

¹⁶⁰ Gerald Inglangasuk, Inuvialuit Member, Fisheries Joint Management Committee, *Evidence*, 1 April 2019.

¹⁶¹ Christopher Burn, Chancellor's Professor of Geography, Carleton University, As an Individual, *Evidence*, 19 March 2018.

¹⁶² Karen Dunmall, Former Liber Ero Post-Doctoral Fellow, As an Individual, *Evidence*, 27 February 2019.



Kananginak Pootoogook (Canadian (Cape Dorset), 1935-2010), *The First Tourist*, 1992, lithograph on paper, 48/50, 57 x 71 cm, Government of Nunavut Fine Art Collection, On long-term loan to the Winnipeg Art Gallery, 993.3.27, Photograph: Lianed Marcoletta, courtesy of the Winnipeg Art Gallery & Government of Nunavut

B. Preparing for Tourism and Resource Development Opportunities

Climate change also presents economic opportunities for the Arctic. Improved maritime access to the region may foster the growth of the mining sector, an already important private sector driver of Canada's Arctic economy.¹⁶³ During its September 2018 visit to the Meadowbank gold mine near Baker Lake, Nunavut, the committee learnt about employment and skills development benefits for Nunavut residents. However, social challenges associated with the mine development, such as increased alcohol and drug use in the community, were also mentioned during the committee's discussions with the Hamlet of Baker Lake. Further research is therefore needed to understand and

¹⁶³ Brendan Marshall, Vice President, Economic and Northern Affairs, Mining Association of Canada, *Evidence*, 1 October 2018.

mitigate social, cultural and environmental impacts of large-scale mining development in Arctic communities.

According to the Arctic Fishery Alliance, Nunavut's fishing industry is an "excellent example of the potential for Canada's Arctic economy to develop sustainably."¹⁶⁴ However, the organization indicated that the "baseline scientific knowledge of Nunavut's marine environment is minimal or non-existent." Hence, the research capacity in Arctic fisheries needs to be strengthened to close knowledge gaps and prepare Arctic communities for future opportunities arising from their marine environment.

The committee heard from the Honourable Paul Aarulaaq Quassa, former Premier of Nunavut, on the impacts of increased tourism in the context of the "Northwest Passage [...] becoming accessible to cruise ships."¹⁶⁵ In addition to potential economic benefits, he expressed concerns regarding cruise ships navigating into fjords where Inuit hunting grounds are, and the resulting effects on marine mammals. Enhanced research capacity to understand the potential impacts of increased maritime activities on Arctic marine mammals as well as cruise tourism impacts on Arctic communities is, therefore, required to respond to local residents' concerns and knowledge needs.

Arctic Research Infrastructure and Capacity

A. Research Infrastructure

The scientific knowledge on the impacts of climate change in the Arctic is most useful when it addresses the pressing adaptation needs of Arctic communities and the well-being of the region's residents.¹⁶⁶ To close key knowledge gaps and enable informed answers to research questions from Arctic communities, Maribeth Murray indicated that an integrated and sustainably funded Arctic research infrastructure is essential.¹⁶⁷ She noted that research stations in the Canadian Arctic are "critical components of Canada's science capabilities and our contribution to global observing activities." Maribeth Murray also noted the role of research infrastructure in building bridges between Indigenous and non-Indigenous experts:

The Canadian Network of Northern Research Operators works for a common purpose to support coordination across these facilities. Scientists and Indigenous experts from across Canada often use them as a base of operations and, importantly, they also serve to facilitate cooperation in Arctic research and build bridges across nations and cultures. Maintaining our Arctic research facilities

¹⁶⁴ Arctic Fishery Alliance, Arctic Policy Framework: Infrastructure & Economic Development for Nunavut Fisheries, August 2018.

¹⁶⁵ Honourable Paul Aarulaaq Quassa, Premier of Nunavut, Government of Nunavut, *Evidence*, 26 February 2018.

¹⁶⁶ Mary Simon, "Research and Indigenous Knowledge," Part 1 in *A New Shared Arctic Leadership Model*, March 2017.

¹⁶⁷ Maribeth S. Murray, Executive Director, Arctic Institute of North America and Professor, University of Calgary, As an Individual, *Evidence*, 1 April 2019.

*and this network is critical to continue to track change, project future conditions and develop strategies for mitigation and response that will benefit Canada.*¹⁶⁸

To maintain the existing research infrastructure, long-term and stable funding is critical as Maribeth Murray mentioned:

*It's sometimes difficult to immediately see the benefit of the collection of these kinds of observations, but they are key to underpinning our understanding of where we're headed, both in the Arctic and more broadly, so I would certainly like to see stable support for these kinds of nationally significant pieces of research and observing infrastructure.*¹⁶⁹

In addition to properly maintaining the existing research infrastructure, the committee heard from witnesses on the need for coordination between different research networks and the building of new research centres. During the committee's visit to the newly established Canadian High Arctic Research Station in Cambridge Bay, Nunavut, David Scott mentioned that the station is a much-needed innovative facility that can support a wide range of research activities and will complement the existing network of research facilities across the Arctic. However, he also observed that "there are numerous areas in the North where you could fit the province of New Brunswick and no research infrastructure exists."¹⁷⁰

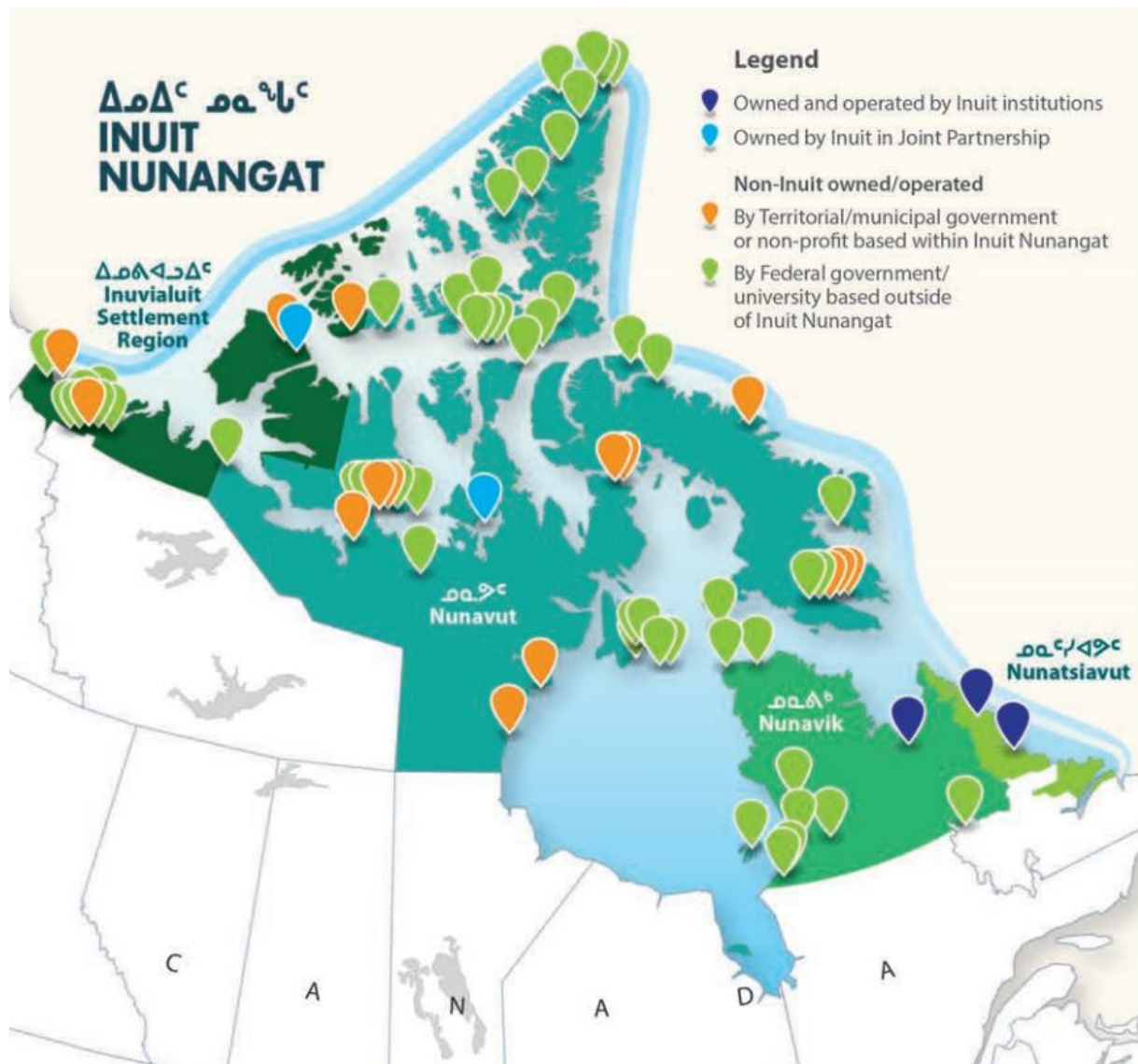
As shown in Figure 6, research centres in the Arctic are in majority owned and operated by government departments, research institutions, and non-governmental organizations. Only a small number of Arctic research centres are owned or operated by Indigenous organizations. During its visit to Kuujuaq in September 2018, the committee had the opportunity to tour the Nunavik Research Centre. The Centre was established after the signing of the *James Bay and Northern Quebec Agreement*, and operated by Makivik Corporation. The committee learned that the Centre carries out scientific research on the natural environment and wildlife, including country food. Scientists at the Centre test country foods, such as marine mammals, for diseases and heavy metals following guidelines established by the Canadian Food Inspection Agency. Results are transmitted to Nunavik's Public Health officer within 24 hours of receiving samples from harvesting communities.

¹⁶⁸ Maribeth S. Murray, Executive Director, Arctic Institute of North America and Professor, University of Calgary, As an Individual, [Evidence](#), 1 April 2019.

¹⁶⁹ Maribeth S. Murray, Executive Director, Arctic Institute of North America and Professor, University of Calgary, As an Individual, [Evidence](#), 1 April 2019.

¹⁷⁰ David J. Scott, President and Chief Executive Officer, Polar Knowledge Canada, [Evidence](#), 19 March 2018.

Figure 6 – Distribution of Research Stations in Inuit Nunangat



Source: Inuit Tapiriit Kanatami, “[Distribution of research stations in Inuit Nunangat](#),” Figure 4 in *National Inuit Strategy on Research*, 2018.

To ensure that research priorities are community-driven, Joel Heath pointed out that it's "important to have [research centres] owned by communities as well so that communities can really take self-determination and research and the intellectual property and drive that process."¹⁷¹ He also emphasized the need for long-term and sustainable funding for Arctic research stations:

I don't think all stations necessarily need to be community-owned, but when communities can take that ownership, it will make it that much more successful. Currently, the funding is often very project based. There needs to be funding that's sustainable, so communities can have a full-time local Inuit station manager hired to run programs. That needs to move beyond project-based funding.¹⁷²

B. Capacity of Territorial and Indigenous Organizations

Devolution of governance and settlement of land claims has transferred much responsibility for land and renewable resource management in the Canadian Arctic to territorial and Indigenous organizations. Members of these organizations frequently express concerns about their lack of capacity to manage the large number of issues that are arising and anticipated in the context of rapid changes driven by climate change. During its visit to Yellowknife, the committee heard, for example, from the Sahtú Land Use Planning Board on challenges related to funding and delays in appointments to the Board. These difficulties hamper the Board's capacity to devise land use plans based on scientific data and Indigenous knowledge. The Board reminded the committee that its mandate for land use planning flows from the *Sahtú Dene and Metis Comprehensive Land Claim Agreement* and the *Mackenzie Valley Resource Management Act*.

To ensure that territorial and Indigenous organizations are in position to meet the adaptation challenges of climate change, Christopher Burn recommended that the federal government work with territorial governments and Indigenous governing bodies to:

increase the capacity of northern agencies to manage and mitigate the effects of climate change in the Arctic, particularly with respect to built infrastructure. This will require investment in people and positions as well as rehabilitation of existing facilities and modification of construction techniques. Similar additional capacity may be required to manage the effects of climate change on wildlife populations and water resources throughout the Canadian Arctic.¹⁷³

Christopher Burn also recommended the federal government to "assist development of administrative instruments" to ensure that science conducted in the Arctic support territorial and Indigenous organizations in carrying out their mandates. He clarified that these instruments may be administered through the research licensing processes in the territories.

¹⁷¹ Joel Heath, Executive Director, Arctic Eider Society, *Evidence*, 19 March 2018.

¹⁷² Joel Heath, Executive Director, Arctic Eider Society, *Evidence*, 19 March 2018.

¹⁷³ Christopher Burn, Chancellor's Professor of Geography, Carleton University, As an Individual, *Evidence on climate change effects and their management and investigation in the western Arctic: Recommendations*, 19 March 2018, Supplementary document provided to the committee.

The committee notes that, in 2016, the three Arctic territories released a document entitled *A Pan-Northern Approach to Science* putting forward their vision and priorities in scientific research and development.¹⁷⁴ At the heart of the territorial science strategy is the development of partnerships required for building Arctic scientific capacity. Collaboration with other governments, including Indigenous governing bodies and organizations, as well as communities, academic institutions, and industry was identified as critical to ensure that scientific research benefits and meets the needs of Arctic residents. In addition, the territories identified ongoing support for territorial colleges and research institutes as critical for scientific capacity building in the Arctic. The committee recommends:

16. That the Government of Canada collaborate with territorial governments, Arctic Indigenous governing bodies, academic institutions and industry to grow the scientific capacity of northern agencies responsible for devising adaptation efforts to climate change.

C. Research Funding

In its National Inuit Strategy on Research, the Inuit Tapiriit Kanatami (ITK) observed that “federal research funding eligibility criteria tend to exclude Inuit representational organizations from accessing funding as lead institutions or principal investigators.”¹⁷⁵ Calling for the federal government to align funding to Inuit research priorities, the ITK also indicated:

*Inuit research priorities should be reflected among the priorities identified by funding agencies, and they should influence the manner in which research priorities are determined, the composition and function of research governance bodies, as well as funding eligibility criteria for prospective research grant applicants.*¹⁷⁶

Reflecting the ITK’s concerns regarding federal funding for Indigenous organizations undertaking research, Shirley Tagalik indicated that the Aqqiumavvik Society in Arviat is a sought-after partner in the Arctic research community.¹⁷⁷ However, “Aqqiumavvik is entirely funded by third-party grants,” and there is a need for core funding for community organizations. Karla Jessen Williamson also expressed her concerns regarding federal funding through the Tri-Council 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).¹⁷⁸

¹⁷⁴ Government of Yukon, *Pan-Northern Approach to Science*, April 2016.

¹⁷⁵ Inuit Tapiriit Kanatami, *National Inuit Strategy on Research*, 2018.

¹⁷⁶ Inuit Tapiriit Kanatami, *National Inuit Strategy on Research*, 2018.

¹⁷⁷ Shirley Tagalik, Director, Aqqiumavvik Society, *Evidence*, 1 April 2019.

¹⁷⁸ Karla Jessen Williamson, Assistant Professor, Ed Foundations, University of Saskatchewan, *Evidence*, 1 April 2019.

Representing the Tri-Council agencies, Ted Hewitt informed the committee about the progress made by the federal government in devising strategies to grow the capacity of Indigenous communities to conduct research and partner with the broader research community. He mentioned the Indigenous Research Capacity and Reconciliation's 116 Connection Grants:

More than half of these grants were awarded to Indigenous, not-for-profit organization and nearly a dozen went to projects related to communities in the North and the Arctic. There will be more opportunities for both Arctic and Indigenous research thanks to the recently launched New Frontiers in Research Fund, a new CRCC [Canadian Research Coordinating Committee]-designed tri-agency program.¹⁷⁹

Marc Fortin also indicated that:

NSERC in the process of reviewing, redesigning the partnership programs which represent about \$270 million a year of expenditures, partnerships between different groups, academia, and sometimes industry. We are in the process of simplifying those programs, broadening eligibility to those programs, including not-for-profit organizations and community organizations, and we are thinking specifically of communities in the North.¹⁸⁰

Marc Fortin added that NSERC is also considering the appropriate approach to review research proposals originating from Arctic communities since the “classical or the conventional peer review approach, [...] will be a challenge for some of those not-for-profit organizations, smaller community groups or community associations.”¹⁸¹ For its part, SSHRC is now ensuring that when research proposals come from Indigenous Arctic communities, there will be representation from the Arctic in peer-review committees examining the proposals.¹⁸²

The committee is encouraged by the progress made to date and notes that identifying new ways of doing research with Arctic First Nations and Inuit communities is part of the Calls to Action (number 65) made by the Truth and Reconciliation Commission of Canada.¹⁸³ Given that very few Arctic residents currently sit on federal research governance bodies,¹⁸⁴ and according to the ITK, federal

¹⁷⁹ Ted Hewitt, Chair and President of Social Sciences and Humanities Research Council, Canada Research Coordinating Committee, *Evidence*, 3 April 2019.

¹⁸⁰ Marc Fortin, Vice President, Research Partnerships, and Chief Operating Officer, Natural Sciences and Engineering Research Council of Canada, *Evidence*, 3 April 2019.

¹⁸¹ Marc Fortin, Vice President, Research Partnerships, and Chief Operating Officer, Natural Sciences and Engineering Research Council of Canada, *Evidence*, 3 April 2019.

¹⁸² Ted Hewitt, Chair and President of Social Sciences and Humanities Research Council, Canada Research Coordinating Committee, *Evidence*, 3 April 2019.

¹⁸³ Truth and Reconciliation Commission of Canada, *Calls to Action*, 2015.

¹⁸⁴ Ted Hewitt, Chair and President of Social Sciences and Humanities Research Council, Canada Research Coordinating Committee, *Evidence*, 3 April 2019.

“engagement with the Inuit governance structure, research institutions, and priorities by the research community tends to be sporadic,”¹⁸⁵ the committee recommends:

17. That the Government of Canada create mechanisms for Arctic Indigenous representational organization’s input into federal research governance bodies, and partner with Arctic Indigenous governing bodies and communities in setting Arctic research priorities as it relates to funding requirements.

Incorporation of Indigenous Knowledge in Arctic Research

The committee heard from Sandra Kunuk Inutiq on the necessity to have “research priorities set by the community and then capacity building within Inuit [communities] to do that research or to partner with whom we want to partner with on research.”¹⁸⁶ The ITK added that “Inuit self-determination in research is imperative for enhancing the effectiveness, impact, and usefulness of research for Inuit.”¹⁸⁷ Therefore, research that is community-driven and effective will necessarily incorporate Indigenous knowledge, or in the case of the Inuit, *Inuit Qaujimagatuqangit*.¹⁸⁸

Karla Jessen Williamson impressed on the committee the need to consider Indigenous knowledge as a legitimate form of knowledge embodying a wealth of wisdom and experience of the environment gained over millennia from direct observations:

*What is knowledge and whose knowledge matters? I think it’s a very pertinent question that we need to ask here in Canada. Obviously, Canada as a nation is a state that has been deeply and continues to be very deeply involved in colonial structures.*¹⁸⁹

In her view, Indigenous knowledge of the environment is intuitive and holistic and is derived from the special relationship between Indigenous peoples and their lands:

In a decolonialized mindset that’s the input the First Nations, Metis and Inuit can have, is relationship with the land because without the land we are nothing in reality. Great scholars like Paulo Freire were one of the first ones to alert us that as human beings we need to explain ourselves in relation

¹⁸⁵ Inuit Tapiriit Kanatami, *National Inuit Strategy on Research*, 2018.

¹⁸⁶ Sandra Kunuk Inutiq, Chief Negotiator, Tallurutiup Imanga Inuit Impact Benefit Agreement, Qikiqtani Inuit Association, *Evidence*, 1 April 2019.

¹⁸⁷ Inuit Tapiriit Kanatami, *Position Paper: Development and Implementation of the Arctic Policy Framework*, November 2018, Supplementary document provided to the committee.

¹⁸⁸ Sandra Kunuk Inutiq, Chief Negotiator, Tallurutiup Imanga Inuit Impact Benefit Agreement, Qikiqtani Inuit Association, *Evidence*, 1 April 2019.

¹⁸⁹ Karla Jessen Williamson, Assistant Professor, Ed Foundations, University of Saskatchewan, *Evidence*, 1 April 2019.

*to nature and the environment, and I think it's something that needs to be well taken for what it is, because without the land, without the environment we are absolutely nothing.*¹⁹⁰

In the same vein, Jocelyn Joe-Strack indicated that “Indigenous knowledge is an aspect of humanity, being and living that is often missing from science and policy.”¹⁹¹ Valérie Courtois added that Indigenous knowledge is a rich source to be tapped into to gain new perspectives about the relationship between humans and the environment:

*Our science is very young, relatively speaking, on caribou, compared to Indigenous knowledge systems. What we're finding is that while we know the caribou are cyclical, like lynx or rabbit, but the cycle is very long. The Western science data and the information we have doesn't cover the entirety of a cycle. The oldest collars installed in Canada on caribou were installed in Labrador in 1983 to track packs of low-level flying. We have only got less than 40 years.*¹⁹²

The Inuit Circumpolar Council Canada drew the committee's attention to the interactions between science, arts, and culture. According to the Council,

*Science, arts, and culture are inextricably linked, one feeding into another, with the Inuktitut language weaving its way through. Environmental science supports successful subsistence hunting practices that provide materials for the clothes and supplies artfully created from skins, bones, and fur, which are foundational to the Inuit culture that exists in the survival of Arctic conditions. Promoting one means promoting all. And to strengthen science, arts, and culture is to equip the youth population with the tools required to preserve the language and customs of their ancestors, and to observe, record, and communicate the environmental changes that are happening as the climate warms.*¹⁹³

The committee also heard Christopher Burn pointing out that “Indigenous knowledge shares attributes with western science but is also distinct. The distinctions are important because they alter and may even enhance participation in decision-making processes.”¹⁹⁴ In the view of the Inuvialuit Regional Corporation, the federal Arctic and Northern Policy Framework should “provide direction to Canada's representatives on how both Indigenous knowledge and western science can be better synergized to reflect an all-inclusive approach.”¹⁹⁵ However, despite the importance of Indigenous knowledge in providing a unique understanding of the Arctic environment and its peoples, Karla Jessen Williamson indicated that, in the past, it has not been respected as a source of knowledge for Arctic research:

¹⁹⁰ Karla Jessen Williamson, Assistant Professor, Ed Foundations, University of Saskatchewan, *Evidence*, 1 April 2019.

¹⁹¹ Jocelyn Joe-Strack, Consultant and PhD student, Subarctic Research and Strategy, University of Saskatchewan As an Individual, *Evidence*, 3 April 2019.

¹⁹² Valérie Courtois, Director, Indigenous Leadership Initiative, *Evidence*, 1 April 2019.

¹⁹³ Inuit Circumpolar Council Canada, *Brief*, March 2019.

¹⁹⁴ Christopher Burn, Chancellor's Professor of Geography, Carleton University, As an Individual, *Evidence*, 19 March 2018.

¹⁹⁵ Duane Smith, Chair and CEO, Inuvialuit Regional Corporation, Committee fact finding trip, Yellowknife, Northwest Territories, 10 September 2018.

Northern Lights: A Wake-Up Call for the Future of Canada

I have never had funding from SSHRC, ever; I never have, even though I have been applying. But my ideas that are well grounded in the Indigenous knowledge have never been appreciated, except that 10 years later, they will be inviting me to speak on some policy making.¹⁹⁶

The committee is encouraged to hear from many scientists based in southern Canada that their research is now undertaken in meaningful partnership with Arctic communities and such research has created value for those communities. Joel Heath described the work of the Arctic Eider Society as follows:

Sanikiluaq is very proactive. They had a program called Voices from the Bay, which catalyzed a lot of collaboration between Hudson Bay communities. We networked with Inukjuak, Umiujaq and Kuujjuaraapik in Nunavik, Chisasibi in the region of Northern Quebec and Sanikiluaq in Nunavut to form this network. Each community has a different piece of the puzzle that the community can get to by Ski-Doo in the winter or by boat. By putting the pieces together, we can get a bigger picture of what's been happening and look at the cumulative impacts of environmental change, such as hydroelectric electric projects, climate change and development.¹⁹⁷

The committee also heard from Gary Stern about involvement of Indigenous communities in research on contaminants, such as mercury and hydrocarbons, circulating within the Arctic ecosystem, and how they are affected by climate change:

When we started it, with a big workshop that we had in Inuvik, we invited people from Inuvialuit, Kitikmeot and the Yukon North Slope, as well as different scientists involved in these studies. We got direct input from them as to exactly what their concerns are living in the Arctic. We wanted to make sure the science we were doing was the science they felt needed to be done. It was a long consultation process and it worked wonderfully.¹⁹⁸

Karen Dunmall described to the committee the Arctic Salmon program, a community-based monitoring effort to track salmon in the Canadian Arctic using science combined with Indigenous knowledge to better understand broader changes in the freshwater and marine ecosystems.¹⁹⁹ In her opinion, the program is a prime example of research undertaken to address community-driven questions about environmental changes that are impacting day-to-day lives:

Simply identifying these fish even as salmon is a challenge. Salmon are not commonly harvested; so, people know they are different, but they may not recognize them as salmon. This first step requires common language. It's the reason why we developed salmon and char guidebooks. These

¹⁹⁶ Karla Jessen Williamson, Assistant Professor, Ed Foundations, University of Saskatchewan, [Evidence](#), 1 April 2019.

¹⁹⁷ Joel Heath, Executive Director, Arctic Eider Society, [Evidence](#), 19 March 2018.

¹⁹⁸ Gary Stern, Professor, University of Manitoba, as an individual, [Evidence](#), 30 April 2018.

¹⁹⁹ Karen Dunmall, Former Liber Ero Post-Doctoral Fellow, As an Individual, [Evidence](#), 27 February 2019.

species ID books rely on illustrations and point to key identifying traits. They are now translated into several local languages across the Canadian Arctic to reach more harvesters.

David Barber provided further examples of partnership with local communities in the conduct of scientific Arctic research. He indicated that Inuit partnerships have been instrumental in research undertaken on the North Water Polynya and the SIKU project, an Inuit knowledge wiki and social mapping platform for communities across Hudson Bay.²⁰⁰ The active involvement of the Cree communities on the southeast side of the Hudson Bay and the Inuit of Sanikiluaq also ensured the success of the ongoing community-based monitoring program that examines freshwater coming into Hudson Bay and the resulting impacts on marine processes in the bay.

While welcoming community-based monitoring programs, the Council of Yukon First Nations also cautioned that much more investments are needed to ensure their success:

Programs like the Federal Indigenous Community-Based Climate Monitoring (ICBCM) are oversubscribed and, although progress has been made, these programs need to be more long-term so that they are not always scrambling for funding and can spend more time on the land, analyzing data, etc.²⁰¹

In the view of Norma Kassi, “Indigenous peoples are now at a point where community-based research and Indigenous-led research are paramount in our way of doing things and moving forward with this planet the way it is.”²⁰² Referring to Yukon’s Kluane First Nation, she provided a hopeful perspective:

There has been a lot of research in the past, and scientific research that has done a lot of damage to our people to the point of death. We have learned from that. We need to go forward and work together. We need young people, we need the two-eyed seeing. We want the non-Aboriginal youth who live in our nations together to walk with us together, because we know our lands and our species. From the bottom of our hearts. We have known them for thousands of years. We have a lot of knowledge to share and we can work together. We’re hoping in the way of research now that no time is wasted, no money is wasted and we do research that is relevant to the survival of our people into the future.²⁰³

Regarding the critical youth participation in Arctic research, Jennifer Provencher observed that “up to 41 per cent of the population [in the Arctic] is under the age of 20. While knowledge holders and elders are very important to engage in research, it is equally important to ensure opportunities for

²⁰⁰ David Barber, Professor, University of Manitoba, [Evidence](#), 16 April 2018.

²⁰¹ Council of Yukon First Nations, Brief, 4 October 2018.

²⁰² Norma Kassi, Co-Founder and Director of Indigenous Collaboration, Arctic Institute of Community-Based Research, [Evidence](#), 20 March 2019.

²⁰³ Norma Kassi, Co-Founder and Director of Indigenous Collaboration, Arctic Institute of Community-Based Research, [Evidence](#), 20 March 2019.

community members to be active participants in research programs.”²⁰⁴ However, as Theo Ikummaq and Gita Ljubicic indicated, research opportunities for Arctic youth can be limited given that their Nunavut education equivalencies do not prepare them adequately for college or university.²⁰⁵ The committee recommends:

18. That the Government of Canada, with Indigenous governing bodies and organizations, develop a government-wide policy to direct how Indigenous knowledge and science can be better synergized to reflect a holistic approach, including the recognition of intellectual property rights of Indigenous knowledge holders.

Environmental Conservation: Towards a Conservation Economy

Given rapid changes occurring in the Arctic environment, the committee heard witnesses expressing the need for environmental conservation based on Indigenous knowledge and scientific evidence. However, environment conservation and management should also be tied to building healthy communities and sustainable and diversified economies.

A. Community-Driven Environmental Conservation

The importance of Indigenous knowledge in environmental conservation was raised during the committee’s visit to Yellowknife. The committee was informed by the Gwich’in Tribal Council that the Gwich’in Nations are asserting a “common front advocacy for protecting the Porcupine caribou herd against the threat posed by the U.S. Administration’s proposed oil and gas leasing program in Kanathe Arctic National Wildlife Reserve (ANWR)” in Alaska.²⁰⁶ As the Council is undertaking a porcupine caribou study drawing on Indigenous knowledge, it stressed the important role of using Indigenous knowledge alongside scientific evidence in the analysis of oil and gas development impacts on the herd.

²⁰⁴ Jennifer Provencher, Liber Ero Post-Doctoral Fellow, As an Individual, *Evidence*, 1 April 2019.

²⁰⁵ Theo Ikummaq, Iglulingmiut, Hunter, Environmentalist, Cultural Advocate, As an Individual; and Gita J. Ljubicic, Associate Professor, Carleton University, As an Individual, *Evidence*, 3 April 2019.

²⁰⁶ Jordan Peterson, Deputy Grand Chief and Vice-President, Gwich’in Tribal Council, Committee fact finding trip, Yellowknife, Northwest Territories, 10 September 2018.

Figure 7 – Boundary Proposal for Tallurutiup Imanga National Marine Conservation Area



Source: Qikiqtani Inuit Association and Government of Canada, *Tallurutiup Imanga Inuit Impact and Benefit Agreement*, Supplementary document provided to the committee.

Norma Kassi emphasized the significance of the Porcupine caribou herd for the Vuntut Gwitchin people in Yukon :

The accelerated speed at which climate change has hit our communities is unreal. But the biggest thing is our caribou. We have the last remaining and largest herd on earth, and our people have taken care of that herd for thousands of years. There are human remains of my people that date back to 27,000 years ago, and we have taken care of those caribou. We have the only herd left.

We've been at this for 28 years, fighting the U.S. administration as Vuntut Gwitchin. I'm very proud of the way our people have taken a lead on this and raised this awareness internationally. A lot of the caribou herds, as you know, amongst both our nations have declined in the Northwest Territories and Nunavut and other areas in Canada. Internationally, we have raised the issue to a point where we have large support to support the Arctic National Wildlife Refuge.

However, we need a state-to-state discussion. We need the Prime Minister of Canada to discuss openly the preservation of the Arctic Refuge. This is the last area on earth with so much biodiversity that we have got to protect it. We cannot do this. This absolutely cannot happen.²⁰⁷

²⁰⁷ Norma Kassi, Co-Founder and Director of Indigenous Collaboration, Arctic Institute of Community-Based Research, *Evidence*, 20 March 2019.

Sandra Kunuk Inutiq recommended the federal government to support community-driven environmental conservation efforts, keeping in mind the national, territorial and regional Inuit governance structures.²⁰⁸ In her view, environmental conservation initiatives should rely on Arctic residents' priorities. Valérie Courtois added that "Indigenous protected areas are created in collaboration with Crown governments, but Indigenous governments must play the primary role in identifying and managing the lands."²⁰⁹ Echoing this view, the Inuvialuit Regional Corporation stated:

*The principle of Inuit self-determination means that environment and biodiversity conservation initiatives should only proceed in areas and on issues defined by Inuit. Self-determination also means that Inuit priorities for economic development which impact environmental resources will be respected and advanced as joint Inuit-Crown priorities.*²¹⁰

Sandra Kunuk Inutiq highlighted the Tallurutiup Imanga, also known as Lancaster Sound, national marine conservation area (NMCA) as a conservation model for the Qikiqtaaluk/Baffin region (Figure 7).

The committee was informed by Sandra Kunuk Inutiq that the *Nunavut Land Claims Agreement* requires that there be an impact and benefit agreement with the local Inuit when establishing conservation areas.²¹¹ She added that the land claims agreement provides for Inuit management and conservation of wildlife, land, water, and other resources. Therefore, the Qikiqtani Inuit Association has been negotiating with the Government of Canada an impact and benefit agreement to manage the Tallurutiup Imanga NMCA that Inuit "have been trying to protect [...] since the exploration started to happen in the 1970s."

Regarding co-management in the Arctic, Burton Ayles reminded the committee that land claims agreements have established co-management of resources throughout the region.²¹² Therefore, the central role of co-management bodies, such as the Inuvialuit Fisheries Joint Management Committee, needs to be well reflected in Canada's upcoming Arctic and Northern Policy Framework. In his opinion, collaborative governance ensures a comprehensive approach to incorporate Indigenous knowledge into environmental decision-making. Burton Ayles also added that the policy framework must be supported by new resources if policies and programs are to be effective.

²⁰⁸ Sandra Kunuk Inutiq, Chief Negotiator, Tallurutiup Imanga Inuit Impact Benefit Agreement, Qikiqtani Inuit Association, *Evidence*, 1 April 2019.

²⁰⁹ Valérie Courtois, Director, Indigenous Leadership Initiative, *Evidence*, 1 April 2019.

²¹⁰ Duane Smith, Chair and CEO, Inuvialuit Regional Corporation, Committee fact finding trip, Yellowknife, Northwest Territories, 10 September 2018.

²¹¹ Sandra Kunuk Inutiq, Chief Negotiator, Tallurutiup Imanga Inuit Impact Benefit Agreement, Qikiqtani Inuit Association, *Evidence*, 1 April 2019.

²¹² Burton Ayles, Canada Member, Fisheries Joint Management Committee, *Evidence*, 1 April 2019.

The committee recommends:

19. That the Government of Canada: 1) Support community-driven environmental conservation efforts; 2) Recognize and support the central role of co-management bodies in the Arctic when proposing environmental conservation initiatives; and 3) Ensure collaborative governance in environmental decision-making.

B. Building a Conservation Economy

Referring to Mary Simon’s *A New Shared Arctic Leadership Model* report, Sandra Kunuk Inutiq indicated that conservation goals require examining the purpose of conservation. For Inuit, the purpose of environmental conservation is the “creation of socio-economic and cultural equity between Inuit and other Canadians, while supporting reconciliation.”²¹³ Therefore, environmental conservation should foster food sovereignty and a “conservation economy” in the Arctic.²¹⁴ In Sandra Kunuk Inutiq’s view, such a conservation economy includes:

...marine infrastructure and community infrastructure, a stewardship model called Uattijiit — like a guardians program, where Inuit are already traversing the land and sea scape, trying to advance or support this further, that Inuit are already the eyes and ears of our homeland — as well as a robust research model informed by the Inuit Tapiriit Kanatami research strategy that allows Inuit to define their own research priorities.

The committee notes that, in terms of marine infrastructure supporting a conservation economy, the Qikiqtani Inuit Association listed small craft harbours that would enable fisheries and tourism development and increase access to country food.²¹⁵ The Association noted that there are over 1,000 small craft harbours overseen by Fisheries and Oceans Canada but only one is in Nunavut. It also recommended the federal government to build multi-use facilities essential for training in environmental stewardship and management of conservation areas, harvesting and program delivery. The Qikiqtani Inuit Association’s vision for a conservation economy entails “economic wealth derived from local natural resources in a way that respects and preserves Inuit Qaujimajatuqangit, meets local needs and restores rather than depletes natural resources and social capital.”²¹⁶

²¹³ Qikiqtani Inuit Association, “Tallurutiup Imanga National Marine Conservation Area,” Part 7 in *A New Approach to Economic Development in Nunavut*, February 2018, Supplementary document provided to the committee.

²¹⁴ Sandra Kunuk Inutiq, Chief Negotiator, Tallurutiup Imanga Inuit Impact Benefit Agreement, Qikiqtani Inuit Association, *Evidence*, 1 April 2019.

²¹⁵ Qikiqtani Inuit Association, *QIA’s Response to “Stronger Together: An Arctic and Northern Policy Framework for Canada,”* January 2019, Supplementary document provided to the committee.

²¹⁶ Qikiqtani Inuit Association, *QIA’s Response to “Stronger Together: An Arctic and Northern Policy Framework for Canada,”* January 2019, Supplementary document provided to the committee.

Regarding Indigenous environmental stewardship, Valérie Courtois likens Indigenous guardians to the “moccasins and mukluks or the eyes and ears on the ground,” skilled in Indigenous knowledge and cultural protocols and trained in western science.²¹⁷ Therefore, she recommended “significant and sustained funding [...] for Guardians to reach their full potential and for meaningful reconciliation at all scales relating to lands and waters in Canada.” In her opinion, supporting Indigenous-led conservation is the most efficient way for Canada to reach its biodiversity goals.

As an example of eyes and ears on the ground, Gerald Inglangasuk provided the case of the Imaryuk Monitoring Program in the Mackenzie Delta region.²¹⁸ He indicated that the Inuvik-Tuktoyaktuk Highway, completed in 2018, brought fresh economic opportunities to the area but also “opened up a number of previously unfished lakes and streams to Inuvialuit and sport fishers from elsewhere in North America.” Recognizing the potential impacts of overfishing, the Fisheries Joint Management Committee, local hunters and trappers committees, and Oceans North developed the Imaryuk Monitoring Program as a step for long-term community-based fisheries management along the highway. The committee recommends:

20. That the Government of Canada recognize socio-economic and cultural equity opportunities in Arctic environmental conservation and invest in the development of infrastructure and Indigenous environmental stewardship initiatives that support a conservation economy.

²¹⁷ Valérie Courtois, Director, Indigenous Leadership Initiative, *Evidence*, 1 April 2019.

²¹⁸ Gerald Inglangasuk, Inuvialuit Member, Fisheries Joint Management Committee, *Evidence*, 1 April 2019.

CHAPTER 4: THE ARCTIC IN A GLOBAL CONTEXT

Many of the forces that are affecting the Arctic, such as climate change, increased maritime traffic, or transboundary pollutants are global in nature, caused by non-Arctic drivers.²¹⁹ In response to this changing landscape, the Government of Canada released a *Statement on Canada's Arctic Foreign Policy* in 2010,²²⁰ which expanded on the international dimensions of the government's 2009 *Northern Strategy*.²²¹

In 2013 and 2019, the House of Commons Standing Committee on Foreign Affairs and International Development presented reports focusing on the international dimensions of Arctic policies. These reports argued that Canada's domestic and foreign Arctic policies should be approached as two sides of the same coin.²²² Accordingly, actions ensuring prosperous and sustainable Arctic communities will also enhance Canada's ability to project its Arctic foreign policy. These findings are consistent with Inuit and Arctic First Nations' widened view of Arctic sovereignty. For Arctic residents, human security issues, such as self-determination, economic development, infrastructure building, and environmental conservation, are integral to Canada's sovereignty in the region.

Since the release of the 2010 *Statement on Canada's Arctic Foreign Policy*, the Arctic Ocean's summer sea-ice extent continued to recede,²²³ and the region is becoming gradually accessible for a range of activities, including tourism, shipping and natural resource development.²²⁴ This increase in activities from Canadian and foreign companies fueled expectations about economic prospects for Arctic residents but also concerns about possible environmental, social, cultural and security impacts.

The repercussions affecting the region and the lives of its residents are also taking place in the context of growing global interest in the Arctic and rising international rivalry outside of the Arctic. Several non-Arctic states in Europe and Asia have developed Arctic policies or strategies. This interest reflects the global awareness regarding climate-driven changes in the region, including its geostrategic importance in both political and economic terms.

²¹⁹ Arctic Monitoring and Assessment Programme (AMAP), *Adaptation Actions for a Changing Arctic: Perspectives from the Baffin Bay/Davis Strait Region*, Oslo, Norway, 2018.

²²⁰ Government of Canada, *Statement on Canada's Arctic Foreign Policy*, 2010.

²²¹ Government of Canada, *Northern Strategy*, 2009.

²²² House of Commons, Standing Committee on Foreign Affairs and International Development, *Canada and the Arctic Council: an Agenda for Regional Leadership*, 1st Session, 41st Parliament, May 2013; and *Nation-Building at Home, Vigilance Beyond: Preparing for the Coming Decades in the Arctic*, 1st Session, 42nd Parliament, April 2019.

²²³ David Barber, Professor, University of Manitoba, *Evidence*, 16 April 2018.

²²⁴ Alison LeClaire, Senior Arctic Official and Director General, Circumpolar and Eastern European Relations, Global Affairs Canada, *Evidence*, 16 April 2018.

The Arctic Heats Up: Contending Perspectives

A. Arctic Exceptionalism

Since the end of the Cold War, the Arctic has generally come to be considered as a zone of peace and a territory of dialogue. In this exceptionalism perspective, the Arctic has been considered as a unique region characterized primarily as a space of regional cooperation and peaceful co-existence. As the committee was informed by Alison LeClaire, Senior Arctic Official and Director General, Circumpolar and Eastern European Relations, Global Affairs Canada, Arctic states and those states with involvement in the region have worked to negotiate a regional rules-based order predicated on multilateralism.²²⁵ International cooperation in the Arctic has, therefore, been a major element of Canadian foreign policy.²²⁶

1. *The Arctic Council: Collaborative Governance*

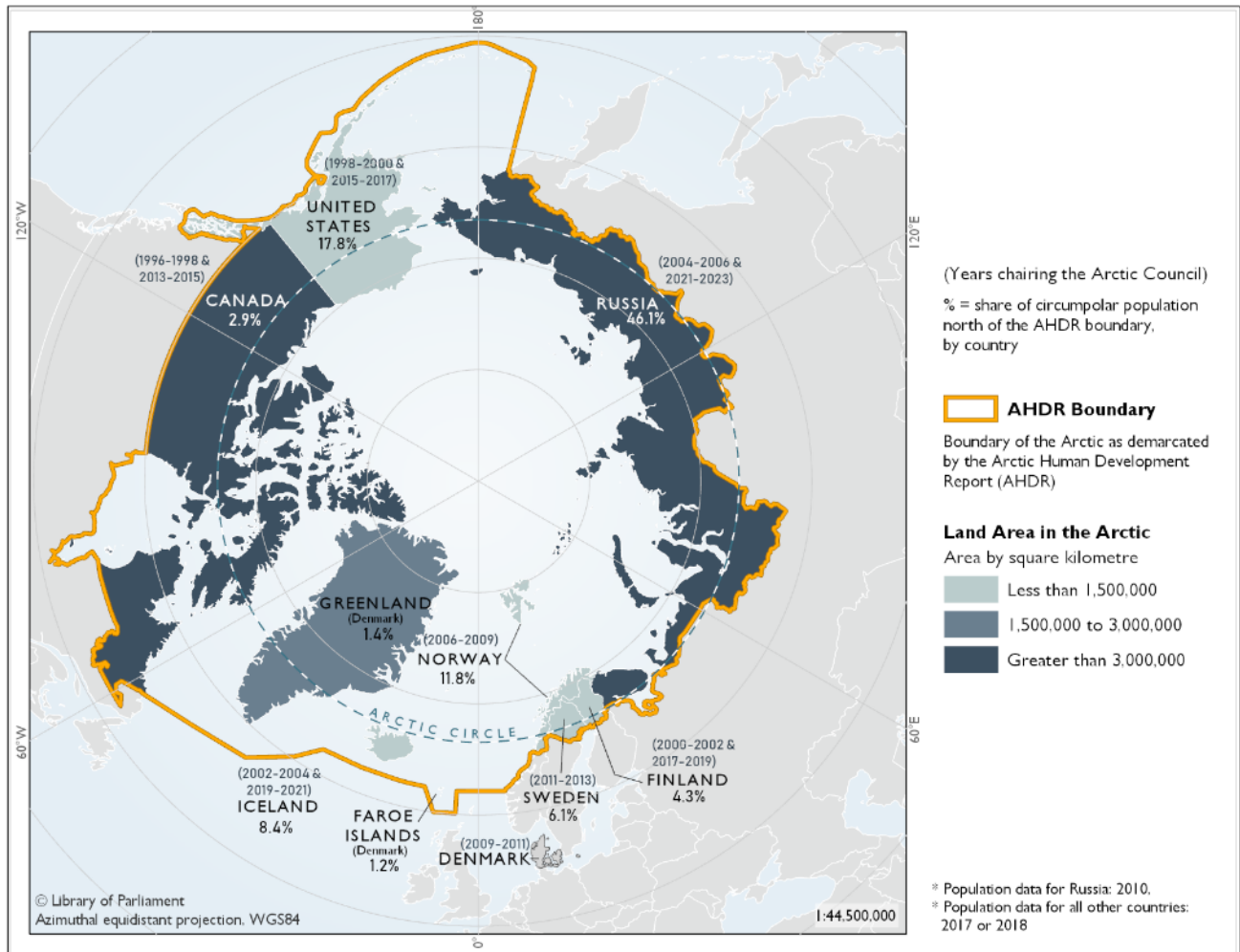
Canada is a member state of the Arctic Council and assumed its rotating chair from 2013 to 2015 (Figure 8).²²⁷ The Arctic Council was formally established in 1996 with the signing of the *Ottawa Declaration* by Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and the United States. The Council serves as an intergovernmental consensus-based forum to promote cooperation among the Arctic states on common issues, particularly those concerning sustainable development and environmental protection.

²²⁵ Alison LeClaire, Senior Arctic Official and Director General, Circumpolar and Eastern European Relations, Global Affairs Canada, *Evidence*, 16 April 2018.

²²⁶ Government of Canada, *Canada and the Arctic Council*.

²²⁷ Arctic Council, *Thematic articles highlighting Arctic Council accomplishments under the Canadian Chairmanship*, 21 April 2015.

Figure 8 –Member States of the Arctic Council



Source: Map prepared by the Library of Parliament, Ottawa, 2019, using data from *Natural Earth*, 1:50m Cultural Vectors and 1:50m Physical Vectors, version 4.1.0; Winfried K. Dallmann, *Arctic Boundaries Map* (Arctic boundary according to AHDR), Norwegian Polar Institute; Population data (as of 2010) for Russia from Timothy Heleniak, “Arctic Populations and Migration,” Chapter 2 in *Arctic Human Development Report: Regional Processes and Global Linkages* [AHDR], Nordic Council of Ministers, Copenhagen, Denmark, 2014; and population data (as of 2017 or 2018) for countries other than Russia provided by Timothy Heleniak through personal communication. The following software was used: Esri, ArcGIS PRO, version 2.1.0.

In the view of Alison LeClaire, the structure of the Arctic Council is “unique in that there are six Indigenous organizations that sit as permanent participants at the same table as states. Three of these have Canadian constituents. They are the Inuit Circumpolar Council Canada, the Arctic Athabaskan Council and the Gwich’in Council International.”²²⁸ She added:

²²⁸ Alison LeClaire, Senior Arctic Official and Director General, Circumpolar and Eastern European Relations, Global Affairs Canada, *Evidence*, 16 April 2018.

When I go to an Arctic Council meeting, the Indigenous groups are at the table with us. They are not decision makers. That accountability remains with governments, but they speak on an equal basis at the table with states.

This was really an innovation, and I would say a Canadian innovation because we were central to the formation of the Arctic Council 20 years ago. That particular category, championed by Mary Simon, was called “Permanent Participants.” It meant that the voice is equal, but the decision-making accountability remains with governments.

I would say, though, that it is a consensus body, and I have yet to see a decision taken by government that did not take into very serious consideration the views of the Indigenous organizations that are at the table.²²⁹

To foster a negotiated rules-based Arctic governance and strengthen regional stability, the Arctic Council successfully concluded three legally binding agreements: the *Agreement on Enhancing International Arctic Scientific Cooperation* (2017); the *Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic* (2013); and, the *Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic* (2011).²³⁰

In 2015, the Arctic Council also established an Arctic Coast Guard Forum to “seek common solutions to maritime issues related to the agencies fulfilling the functions of coast guards within the region.”²³¹ According to Alison LeClaire, the scientific work on identifying safe Arctic shipping corridors is being considered by both the Arctic Council and the Arctic Coast Guard Forum.²³² Participation in the Forum allows circumpolar coast guards to better understand each other’s capabilities and operational culture, and gauge what each agency can contribute in case of a major emergency requiring the pooling of resources. The current lack of resources and infrastructure in the arena of maritime search and rescue in the Arctic is well described in a Senate Standing Committee on Fisheries and Oceans’ 2018 report²³³ and was re-emphasized to this committee by Isabella Pain from the Nunatsiavut Government.²³⁴

Reflecting the global interest in the Arctic, there are a growing number of applications by non-Arctic states, intergovernmental organizations and advocacy groups for observer status on the Arctic

²²⁹ Alison LeClaire, Senior Arctic Official and Director General, Circumpolar and Eastern European Relations, Global Affairs Canada, *Evidence*, 16 April 2018.

²³⁰ Arctic Council, *Agreements*.

²³¹ The Arctic Coast Guard Forum, *About the ACGF*.

²³² Alison LeClaire, Senior Arctic Official and Director General, Circumpolar and Eastern European Relations, Global Affairs Canada, *Evidence*, 16 April 2018.

²³³ Senate, Standing Committee on Fisheries and Oceans, *When Every Minute Counts: Maritime Search and Rescue*, 1st Session, 42nd Parliament, November 2018.

²³⁴ Isabella Pain, Deputy Minister, Nunatsiavut Secretariat, Nunatsiavut Government, *Evidence*, 23 April 2018.

Council.²³⁵ In 2013, six non-Arctic states were granted observer status: China, India, Italy, Japan, Korea, and Singapore. That same year, the Arctic Council updated its criteria to assess new observer applications. Since then, only one additional non-Arctic state was accepted as an observer, Switzerland. Alison LeClaire described the Arctic Council's hesitancy to widen the number of observers:

There are diverse views in the council on whether we should have more observers, but many of those concerns are grounded — at least the way they are articulated — in a concern that our commitment to hold Arctic Council meetings in the North would be jeopardized, because the whole organization gets too big.

On the other hand, there is an acknowledgment that what happens in the Arctic, famously, doesn't stay in the Arctic. There are ramifications around the world, for sea level rises most notably.²³⁶

Cindy Dickson, Executive Director of the Arctic Athabaskan Council, an Indigenous permanent participant at the Arctic Council representing Athabaskan peoples in Alaska, Yukon and the Northwest Territories, added:

The more near-Arctic states or observers that we allow to participate, as long as they participate constructively, I think it's a good thing. We are able to raise issues and get the information out to a broader audience.

We're able to share best practices. We're able to share our concerns and maybe come to some global solutions together. So, I think personally it's a very good thing to be as inclusive as possible.²³⁷

In the opinion of Eirik Sivertsen, Chair of the Standing Committee of Parliamentarians of the Arctic Region, which has observer status at the Arctic Council, the main concern regarding the growing number of non-Arctic state observers is related to the capacity of Indigenous permanent participants to meaningfully participate in the Arctic Council's work.²³⁸ He pointed out, for example, the "huge" difference in financial resources between China and the Sami Council, representing the Sami people in Finland, Russia, Norway and Sweden.

2. Regional Governance Beyond the Arctic Council

Cooperation in the governance of the Arctic goes beyond the Arctic Council. Alan Kessel from Global Affairs Canada mentioned that, in October 2018, representatives of the five coastal states (Arctic

²³⁵ Arctic Council, [Observers](#).

²³⁶ Alison LeClaire, Senior Arctic Official and Director General, Circumpolar and Eastern European Relations, Global Affairs Canada, [Evidence](#), 16 April 2018.

²³⁷ Cindy Dickson, Executive Director, Arctic Athabaskan Council, [Evidence](#), 18 March 2019.

²³⁸ Eirik Sivertsen, Member of the Norwegian Parliament, Chair of the Standing Committee of the Parliamentarians of the Arctic Region, [Evidence](#), 8 April 2019.

Five) bordering the Arctic Ocean (Canada, Denmark (Greenland and the Faroe Islands), Norway, Russia, and the United States) and five others with significant commercial fishing industries (Iceland, China, South Korea, Japan, and the European Union) signed an agreement to prevent unregulated commercial fishing in international Arctic waters. This agreement is based on a precautionary approach that recognizes the rapid climate change happening in the Arctic.²³⁹

The *International Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean*, involving the Inuit Circumpolar Council (ICC), is also the first international treaty that includes Indigenous knowledge in the decision-making process.²⁴⁰ According to Robin Campbell from Hutchins Legal Inc., this agreement should be a model to follow. She explained:

*As a result of this collaboration, the agreement recognizes the interests of Arctic Indigenous peoples, and the sustainability use of living marine resources and ensures that Indigenous knowledge informs the consideration of where the commercial fishing should be undertaken in the high seas as a central Arctic Ocean.*²⁴¹

At a broader level of multilateral cooperation, member states of the International Maritime Organization (IMO), including all eight Arctic states, reached agreement in 2014 on the *International Code for Ships Operating in Polar Waters* (the “Polar Code”). Craig Hutton from Transport Canada indicated that the Code entered into force in January 2017 and institutes mandatory safety and pollution prevention requirements for ships operating in polar waters.²⁴² The necessary involvement of non-Arctic shipping powers in this international Arctic governance agreement was highlighted by Alan Kessel:

In the Polar Code context, it says that we as Canada can say that a vessel cannot enter our territory unless it conforms to the double hulls or the special bilge water provisions in the code. Therefore, if they ask to come into our waters, and we know that they are coming to our waters, and their vessel doesn't conform, we will say that, no, they cannot come into our waters.

That's a very stringent capacity to say to another state that they cannot enter our waters. That's the reason Korea, Singapore and China were very involved in the negotiation of the Polar Code. They are looking out 20 years from now when we, as states, will say to them that we need them to conform to our environmental protection standards, otherwise their vessels can't come through. They are thinking 20 years from now that they want to use some of these waterways, moving goods from Asia

²³⁹ Alan Kessel, Assistant Deputy Minister Legal Affairs and Legal Adviser, Global Affairs Canada, *Evidence*, 16 April 2018.

²⁴⁰ Fisheries and Oceans Canada, *International Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean*.

²⁴¹ Robin Campbell, Lawyer, Hutchins Legal Inc., *Evidence*, 1 April 2019.

²⁴² Craig Hutton, Director General, Strategic Policy, Transport Canada, *Evidence*, 29 October 2018.

*through to Europe and elsewhere. Yes, to them it is extraordinarily important to have Canada as part of an agreement that is binding.*²⁴³

3. Health Cooperation in the Arctic

Beyond governance collaboration, cooperation in domains such as health, education, and science also contribute to build regional stability and the betterment of the lives of Arctic residents. According to Mikhail Voevoda from the International Union for Circumpolar Health, an observer at the Arctic Council, cooperation between health institutes of the eight Arctic states is more important now than ever given rapid environmental and socio-economic changes in the region.²⁴⁴ In his view, Arctic Indigenous peoples have their own “genetic peculiarities which greatly influence the susceptibility to different diseases.” This feature is compounded by socio-economic challenges affecting the traditional lifestyles, and the lower level of medical resources and infrastructure available in the Arctic compared to southern regions.

4. Education Cooperation in the Arctic

Partnerships between educational institutions have been a long-standing feature of circumpolar Arctic cooperation. The University of the Arctic, an observer at the Arctic Council, is a network of universities, colleges and research institutes concerned with education and research in and about the Arctic. The committee heard Peter Sköld from the University of the Arctic stressing the need for improved research cooperation on the human dimensions of the Arctic, especially regarding the role of innovation and Indigenous knowledge in economic development.²⁴⁵ He recommended:

*...to strengthen the research partnerships across borders and we need to develop our international educational collaboration, building integrated models, increasing mobility, summer schools, field schools and possibilities for students to take courses in different countries and travel across the Arctic. By this, educating the future leaders of the Arctic, not only the leaders in the Arctic but also those leaders who have an impact on the development of the region. Into this picture comes, of course, Indigenous traditional knowledge.*²⁴⁶

Regarding the 2030 Agenda for Sustainable Development adopted by Canada and 192 other United Nations member states in 2015,²⁴⁷ Peter Sköld mentioned that certain targets and indicators are either not relevant to the Arctic or currently impossible to evaluate since “we don’t have the data and, most of all, we don’t have data from all different countries that are comparable and possible to put into the same system.”²⁴⁸ Hence, the need to advance pan-Arctic collaboration, including the

²⁴³ Alan Kessel, Assistant Deputy Minister Legal Affairs and Legal Adviser, Global Affairs Canada, [Evidence](#), 16 April 2018.

²⁴⁴ Mikhail Voevoda, President and Professor of Medicine, Institute of Internal Medicine of Siberian Branch of Russian Academy of Medical Science, International Union for Circumpolar Health, [Evidence](#), 1 April 2019.

²⁴⁵ Peter Sköld, Chair, Board of Governors, University of the Arctic, [Evidence](#), 18 March 2019.

²⁴⁶ Peter Sköld, Chair, Board of Governors, University of the Arctic, [Evidence](#), 18 March 2019.

²⁴⁷ Government of Canada, [The 2030 Agenda for Sustainable Development](#).

²⁴⁸ Peter Sköld, Chair, Board of Governors, University of the Arctic, [Evidence](#), 18 March 2019.

development of Arctic-specific indicators, to ensure that Arctic states achieve their 2030 Agenda commitments in ways that reflect the realities of the region.

Peter Sköld also mentioned the role of Arctic cooperation in arts and culture in building Arctic identity and citizenry:

Arts and culture are important not only to Indigenous people but, of course, to all people, not least the people who live in the Arctic. If we want to build a true Arctic identity, because that is also very different in different parts of the region where people feel that I am an Arctic citizen and we belong together, we people who live in the Arctic, if we want to improve that identity or understanding, arts and culture are very important mediators and expressions of what we represent in terms of historical understanding, of our own identities and cultures, and there is a need, parallel to research cooperation, to develop this.²⁴⁹

The committee recommends:

21. That the Government of Canada enhance support for the University of the Arctic to provide Arctic youth with international learning opportunities and enable the network to increase its activities in Canada and throughout the circumpolar Arctic.

5. Scientific Cooperation in the Arctic

In the arena of scientific cooperation, in addition to the 2017 agreement reached at the Arctic Council, Larry Hinzman from the International Arctic Science Committee, an observer at the Arctic Council, lent his support for the 2018 Joint Statement of Ministers issued at the end of the Second Arctic Science Ministerial.²⁵⁰ The Joint Statement calls for “increased effort and urgent attention supporting further international scientific collaboration focusing on the warming trend in the Arctic.”²⁵¹

The Arctic biophysical system remains challenging and costly to monitor and to forecast changes due to its vastness, extreme climatic conditions and the low population density. Therefore, Larry Hinzman indicated that there is an “urgent need for coordinated, sustained observations of Arctic environments,” and for pan-Arctic collaboration and coordination of efforts on establishing observation sites, spanning from community-based observatories to high-tech autonomous systems.²⁵² He recommended that the federal government and Polar Knowledge Canada increase

²⁴⁹ Peter Sköld, Chair, Board of Governors, University of the Arctic, *Evidence*, 18 March 2019.

²⁵⁰ Larry Hinzman, President, International Arctic Science Committee, *Evidence*, 1 April 2019.

²⁵¹ Second Arctic Science Ministerial, *Joint Statement of Ministers*, Berlin, Germany, 26 October 2018.

²⁵² Larry Hinzman, President, International Arctic Science Committee, *Evidence*, 1 April 2019.

their engagement with the international Arctic science community and support for the Sustaining Arctic Observing Networks (SAON),²⁵³ an initiative of the Arctic Council and the International Arctic Science Committee.

Larry Hinzman also indicated that Canada should “make the commitment of resources needed” to support the Arctic Observing Summit helping Canada and the rest of the world prepare for an uncertain future in the Arctic.²⁵⁴ The Summit aims to “provide community-driven, science-based guidance for the design, implementation, coordination and sustained long-term (decades) operation of an international network of Arctic observing systems.”²⁵⁵

Maribeth Murray from the Arctic Institute of North America, also an observer at the Arctic Council, noted that, in addition to the new Canadian High Arctic Research Station in Cambridge Bay, Nunavut, Canada has a “network of over 50 research facilities across the territories and provinces that are operated by universities, the northern colleges, territorial governments and Indigenous organizations.”²⁵⁶ In her view, investments should be made to maintain this infrastructure as it serves as the “foundation on which to build out Canada’s contribution to the development of an internationally sustained and coordinated Arctic observing system.”

The committee also heard concerns expressed by Christopher Burn regarding international scientific research conducted in the Canadian Arctic. He indicated:

*During the last five years, the largest completed scientific research projects in the western Arctic have been by teams based in Germany and the UK. Another large, five-year German project will start there this year. Canada requires foreign scientific cruises in our territorial waters to obtain federal clearance for their activities and to collaborate explicitly with Canadian scientists. We have no similar policy for land-based research. Thereby, we risk losing the intellectual property developed by the research, and, more critically, the ability of the research to assist our northern agencies fulfill their objectives. This is because we do not require collaboration and consultation at the development stage of the research.*²⁵⁷

²⁵³ Sustaining Arctic Observing Networks, [The SAON Process](#).

²⁵⁴ Larry Hinzman, President, International Arctic Science Committee, [Evidence](#), 1 April 2019.

²⁵⁵ Arctic Observing Summit, [About AOS](#).

²⁵⁶ Maribeth Murray, Executive Director, Arctic Institute of North America and Professor, University of Calgary, [Evidence](#), 1 April 2019.

²⁵⁷ Christopher Burn, Chancellor's Professor of Geography, Carleton University, As an Individual, [Evidence on climate change effects and their management and investigation in the western Arctic](#), 13 March 2018.

The committee recommends:

22. That the Government of Canada increase support for international Arctic scientific cooperation, while ensuring that scientific activities conducted in the Canadian Arctic are focused on the knowledge needs of local Arctic residents.

6. Economic Cooperation in the Arctic

The Arctic Council was instrumental in fostering circumpolar economic cooperation. The 2015 *Iqaluit Declaration* adopted at the end of the Canadian chairmanship established the Arctic Economic Council (AEC), which brings together Arctic businesses.²⁵⁸ Patrice Gilbert from Agnico Eagle Mines Limited and a member of the AEC, indicated that the Responsible Resource Development Working Group of the AEC completed a report on mineral development in the Arctic in November 2018.

That report reviews opportunities for resource development in the Arctic and identifies potential barriers to sustainable development consistent with the aspirations of local Indigenous peoples.²⁵⁹ The committee notes that strengthening pan-Arctic business ties was also called for by Premier Bob McLeod of the Northwest Territories. He indicated:

*I think, in the past, we always looked North/South. I used to go to the United States quite a bit. Now, there seems to be a more natural alliance looking in those areas towards the Arctic countries of Europe.*²⁶⁰

In the opinion of Ken Coates, while pan-Arctic cooperation has been successful on many fronts, especially regarding Indigenous participation, the “weakest collaborations are on the business side.”²⁶¹ Therefore, he recommended that Canada enhance circumpolar collaboration on technological innovation, encourage Arctic business cooperation, and support greater business-government and academic collaboration in the development of a circumpolar economy.

The committee was also informed by Eirik Sivertsen that, to foster circumpolar Arctic economic cooperation, parliamentarians of the Arctic region adopted a Conference Statement in 2018 at their meeting in Inari, Finland asking the AEC to “look at promoting an improved investment climate and trade flow in the Arctic Region, including the promotion of joint economic projects.”²⁶² The

²⁵⁸ Alison LeClaire, Senior Arctic Official and Director General, Circumpolar and Eastern European Relations, Global Affairs Canada, *Evidence*, 16 April 2018.

²⁵⁹ Patrice Gilbert, Vice President, Health and Safety and Community, Agnico Eagle Mines Limited, *Evidence*, 1 April 2019.

²⁶⁰ Honourable Bob McLeod, Premier of the Northwest Territories, Government of the Northwest Territories, *Evidence*, 26 February 2018.

²⁶¹ Ken Coates, Professor and Canada Research Chair in Regional Innovation, School of Public Policy, University of Saskatchewan, *Evidence*, 8 April 2019.

²⁶² Conference of Parliamentarians of the Arctic Region, *Conference Statement*, Inari, Finland, 19 September 2018, Supplementary document provided to the committee.

committee encourages the Government of Canada to support the AEC's efforts in strengthening pan-Arctic business ties.

B. The Arctic as a Potential New Platform for International Rivalry

While collaborative governance and circumpolar Arctic cooperation in a range of arenas have avoided conflict dynamics in the region for the past 25 years, the Arctic is increasingly subject to spillover impacts from rising great power rivalry and conflicts taking place outside the region. A popular image of the Arctic is one of increasing tension, with certain media focusing on a "militarization" of the region.

The committee heard contrasting views on whether the Arctic exceptionalism still isolates the region from global political dynamics or the region is on the cusp of a new "cold" war and represents a new platform for international rivalry.

1. Canada's Arctic Sovereignty from a Legal Viewpoint

From a legal perspective, Michael Byers indicated:

There is only one dispute over land in the entire Arctic, and that is a small island between Canada and Greenland named Hans Island. It is 1.3 square kilometres. It is a dispute that only involves the island and not the water or the seabed around it, because those issues were resolved in a boundary treaty between Canada and Denmark in 1973. So, it is a small dispute with a very close military and trading partner.²⁶³

Regarding maritime boundaries, Michael Byers pointed out a dispute between Canada and the United States in the Beaufort Sea (Figure 9).²⁶⁴ The dispute concerns the maritime extension of the land boundary between Yukon and Alaska. Canada claims that the boundary runs along the 141st meridian. Instead, the United States argues that the boundary must be determined by using the equidistance principle which more closely reflects the direction of the respective coast lines.

Both Michael Byers and Alan Kessel shared the opinion that these land and maritime disputes are "well managed and will be resolved peacefully and in due course in accordance with international law."²⁶⁵

²⁶³ Michael Byers, Professor and Canada Research Chair, Department of Political Science, University of British Columbia, As an Individual, [Evidence](#), 18 March 2019.

²⁶⁴ Michael Byers, Professor and Canada Research Chair, Department of Political Science, University of British Columbia, As an Individual, [Evidence](#), 18 March 2019.

²⁶⁵ Alan Kessel, Assistant Deputy Minister Legal Affairs and Legal Adviser, Global Affairs Canada, [Evidence](#), 16 April 2018.

Figure 9 – Maritime Boundaries in the Arctic



Source: Map prepared by Library of Parliament, Ottawa, 2019, using data from Natural Earth, 1:50m and 1:10m Cultural Vectors, version 4.1.0; and Flanders Marine Institute, Maritime Boundaries Geodatabase: “Internal Waters”, version 2, and “Maritime Boundaries and Exclusive Economic Zones (200NM)”, version 10, 2018. The following software was used: Esri, ArcGIS PRO v. 2.1.0.

a. The Northwest Passage

By far, the most debated issue regarding Canada's Arctic sovereignty during this committee's study concerned the legal status and effective Canadian control of the Northwest Passage. The Northwest Passage is a maritime path connecting the Davis Strait and Baffin Bay in the east to the Bering Strait in the west (Figure 10). Suzanne Lalonde indicated that Canada considers that it is sovereign over the waters of the Northwest Passage as those waters are historic internal waters.²⁶⁶ Under the 1982 *United Nations Convention on the Law of the Sea* (UNCLOS), which Canada ratified in 2003, a state exercises exclusive and absolute authority over its internal waters, including the right to control access.

Suzanne Lalonde pointed out, however, that the United States "has held the view that the routes of the Northwest Passage constitute an international strait subject to the right of transit passage."²⁶⁷ The United States is the only Arctic state not to have ratified UNCLOS. Suzanne Lalonde clarified:

As defined under the Law of the Sea convention, "transit passage" means freedom — freedom of navigation for the ships of all nations, both civilian and military; as well as a right of overflight in the international air corridor above a strait, for the aircraft, again, military and civilian, of all states.

Robert Huebert expressed concerns that, in 2018, the United States "Secretary of the Navy has stated twice on official record that the Americans are thinking about engaging in a freedom-of-navigation operation in northern waters. There would only be two waters that they would do this against. They would either do it against the [Russian] Northern Sea Route or the [Canadian] Northwest Passage."²⁶⁸

The United States Coast Guard Arctic Strategic Outlook²⁶⁹ released in April 2019 emphasizing the freedom of navigation in Arctic waters as well as the United States Secretary of State's astonishing May 2019 assertion that Canada's claim to the Northwest Passage is "illegitimate"²⁷⁰ give credence to Robert Huebert's concerns.

²⁶⁶ Suzanne Lalonde, Professor, Faculty of Law, Université de Montréal, As an Individual, *Evidence*, 18 March 2019.

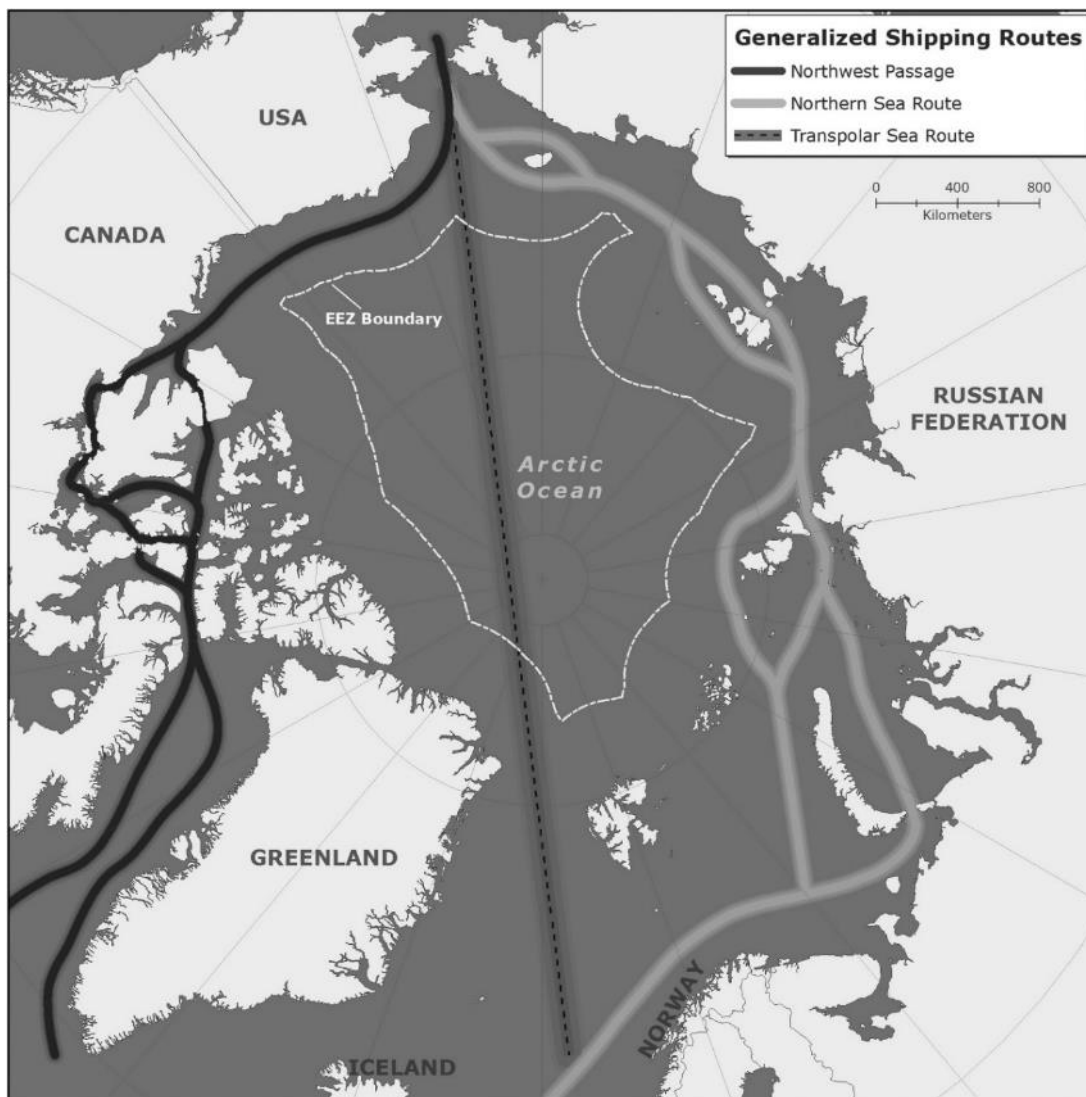
²⁶⁷ Suzanne Lalonde, Professor, Faculty of Law, Université de Montréal, As an Individual, *Evidence*, 18 March 2019.

²⁶⁸ Robert Huebert, Associate Professor, Department of Political Science, University of Calgary, As an Individual, *Evidence*, 3 April 2019.

²⁶⁹ United States Coast Guard, *Arctic Strategic Outlook*, April 2019.

²⁷⁰ United States Department of State, "[Looking North: Sharpening America's Arctic Focus](#)," *Remarks*, Michael R. Pompeo, Secretary of State, Rovaniemi, Finland, 6 May 2019.

Figure 10 – Arctic Shipping Routes



Source: Todd C. Stevenson et al., “An examination of trans-Arctic vessel routing in the Central Arctic Ocean,” *Marine Policy*, Vol. 100, February 2019, pp. 83-89.

Regarding the position of certain non-Arctic states, Suzanne Lalonde mentioned that Germany’s 2013 Arctic Policy Guidelines²⁷¹ and China’s 2018 Arctic Policy²⁷² both stress the freedom of navigation in Arctic shipping routes in accordance with international law.²⁷³ She also noted that Russia’s viewpoint regarding its Northern Sea Route is “almost the perfect mirror of the Canadian legal position,” and

²⁷¹ Federal Foreign Office, *Guidelines of the Germany Arctic Policy*, 2013.

²⁷² State Council of the People’s Republic of China, *China’s Arctic Policy*, 2018.

²⁷³ Suzanne Lalonde, Professor, Faculty of Law, Université de Montréal, As an Individual, *Evidence*, 18 March 2019.

“if Russia were to contest the Canadian legal position, it would be torpedoing its own claim.”²⁷⁴ In addition, possibly in reaction to potential freedom-of-navigation attempts in its internal Arctic waters, Russia has put in place regulations aimed at strengthening its sovereign rights to and maximizing revenue from its Northern Sea Route resources.

According to David Barber, the Arctic Ocean is projected to be seasonally ice-free - less than 10 million square kilometres of ice - around the 2030s. He indicated, however, that compared to the Russian Northern Sea Route and the Transpolar Sea Route (trans-Arctic passage in international waters cutting straight across the North Pole), Canada’s Northwest Passage “will be the last of those passageways to open up”²⁷⁵ (Figure 10). Nevertheless, the legal status of the Northwest Passage is expected to remain in the centre of debates on Canada’s Arctic sovereignty as illustrated by the testimony regarding the passage in summer 2017 of the *Xue Long*, a Chinese icebreaker and research vessel.

Alan Kessel provided a reassuring assessment of the *Xue Long*’s passage:

That voyage was conducted with Canada’s consent after a request by the Chinese government, and after we were satisfied that the vessel would comply with all relevant Canadian rules and regulations. It’s important to note that navigation conducted in compliance with Canadian requirements reflects recognition of Canada’s sovereignty over our Arctic waters rather than a challenge to it.

*I would also highlight that Canadian scientists were invited to join Chinese researchers on board the ship during the Canadian portion of their expedition. At the recommendation of Transport Canada, the *Xue Long* also hired the services of a Canadian ice navigator.²⁷⁶*

The committee also heard, however, a cautious take from Suzanne Lalonde:

China sidestepped the thorny issue of the legal status of the NWP [Northwest Passage]. It did not ask permission for its State vessel to enter Canadian internal waters (as the Canadian position would require). However, it also did not officially declare that it rejected the Canadian position and assert freedom of navigation through an international strait. Rather, it chose to ask Canada for permission to conduct marine scientific research, an obligation imposed by the LOSC [Law of the Sea Convention] regardless of the maritime zone in which such research is to be conducted (well, except for the high seas and the international area).²⁷⁷

²⁷⁴ Suzanne Lalonde, Professor, Faculty of Law, Université de Montréal, As an Individual, *The Debate Over the Legal Status of the Northwest Passage*, 17 October 2018.

²⁷⁵ David Barber, Professor, University of Manitoba, *Evidence*, 16 April 2018.

²⁷⁶ Alan Kessel, Assistant Deputy Minister Legal Affairs and Legal Adviser, Global Affairs Canada, *Evidence*, 16 April 2018.

²⁷⁷ Suzanne Lalonde, Professor, Faculty of Law, Université de Montréal, As an Individual, *The Debate Over the Legal Status of the Northwest Passage*, 17 October 2018.

Therefore, in her view, Canada's legal position was neither strengthened nor weakened by the transit of the *Xue Long* through the Northwest Passage in 2017. Considering that the waters of the Northwest Passage are Canada's internal waters and an integral part of the Inuit homeland, the committee recommends:

23. That the Government of Canada ensure the Canadian Arctic's security and safety and assert and protect Canada's sovereignty in the Arctic.

24. That the Government of Canada, on an immediate basis, establish a robust governance regime to regulate activities in Canada's Arctic waters, including shipping corridors, and bonding and insurance requirements. Such a regulatory regime must include the active involvement and participation of Arctic Indigenous governing bodies and communities.

b. Canada's Extended Continental Shelf in the Arctic

States can claim extended continental shelves beyond the 200 nautical miles limit, to include the natural prolongation of their continental margin and assert their sovereign right to develop natural resources of their continental shelf. States seeking a continental shelf extension must, under UNCLOS, submit their claim to the United Nations' Commission on the Limits of the Continental Shelf (the UN Commission).²⁷⁸ Alan Kessel mentioned that, in 2008, representatives of the Arctic Five met in Ilulissat, Greenland to commit to a common approach for adjudicating their offshore claims in the Arctic Ocean. Through the *Ilulissat Declaration*, the Arctic Five restated that the UNCLOS principles provide the foundation for the resolution of all outstanding Arctic maritime delimitation issues.

On 23 May 2019, Canada filed its Arctic continental shelf submission with the UN Commission.²⁷⁹ The Canadian submission overlaps in some areas with the Russian and Danish submissions. Norway submitted its claim in 2006 and, since then, has concluded a treaty with Russia on maritime delimitation.

According to Suzanne Lalonde, the UN Commission makes recommendations on the limits of the continental shelf but does not determine maritime boundaries if there are overlapping claims. States with overlapping claims must settle the dispute bilaterally following the UNCLOS principles and customary international law.²⁸⁰ Therefore, she recommended Canada to maintain lines of communications open with all its Arctic coastal neighbours. In addition, given the slow pace of work of the UN Commission, Suzanne Lalonde argued that consideration could be given to the options for

²⁷⁸ Fisheries and Oceans Canada, *Sovereignty and UNCLOS*.

²⁷⁹ Global Affairs Canada, "[Canada marks major milestone in defining its continental shelf in Arctic Ocean](#)," News release, 23 May 2019.

²⁸⁰ Suzanne Lalonde, Professor, Faculty of Law, Université de Montréal, As an Individual, *Evidence*, 18 March 2019.

a negotiated settlement between Canada, Russia and Denmark ahead of the Commission's recommendations to the individual states.

2. *The New Geopolitics of the Arctic*

Despite land and maritime disputes in the Canadian Arctic being “well managed” to date and continental shelf extension claims following the well-defined UNCLOS framework, Robert Huebert argued that the contemporary Arctic is global and, increasingly, a “dangerous geopolitical environment,” “threatening Canadian Arctic sovereignty and security.”²⁸¹ In his view, there is a risk of transforming the Arctic as a platform for rivalry because of the fact that the three “strongest and most significant states in the international system — Russia, United States and China — are increasingly coming to odds from a geopolitical perspective and that each and every one of these states has core security interests in the Arctic that are increasingly clashing”.

Robert Huebert provided the examples of Russia modernizing its military infrastructure in the Arctic and China's expenditures being now the “second-largest defence budget at \$200 billion a year and will probably catch up to the Americans somewhere in the foreseeable future.”²⁸² In his opinion:

The logic of the Chinese military expansion is to become a peer competitor to the United States. Under that logic, they cannot allow Russia and the United States to have safe sanctuary in the Arctic. If they are a peer competitor, the logic of that military component means they need to have the capability to pursue and engage both American and Russian forces in the Arctic.

Robert Huebert also cited the United States' unilateralism and isolationism as a cause of concern. He stated:

I don't have to go into the difficulties that we now face with the Americans under the current administration, but I would argue that the American push to a greater degree of what many identify as isolationism is not necessarily only a Trump orientation.

Therefore, referring to the Canada First Defence Strategy,²⁸³ Robert Huebert suggested that Canada invest in the modernization of the North American Aerospace Defense Command (NORAD) infrastructure, improve Arctic situational awareness and enhance the Canadian Rangers' capability to contribute to ensuring effective control over the Canadian Arctic.²⁸⁴ Les Klapatiuk also recommended the federal government to support the private sector's investments in Arctic defence and search and rescue infrastructure, especially in the Inuvik region as this area is Canada's most strategic Arctic defence location.²⁸⁵

²⁸¹ Robert Huebert, Associate Professor, Department of Political Science, University of Calgary, As an Individual, [Evidence](#), 3 April 2019.

²⁸² Robert Huebert, Associate Professor, Department of Political Science, University of Calgary, As an Individual, [Evidence](#), 3 April 2019.

²⁸³ Government of Canada, [Canada First Defence Strategy](#).

²⁸⁴ Robert Huebert, Associate Professor, Department of Political Science, University of Calgary, As an Individual, [Evidence](#), 3 April 2019.

²⁸⁵ Les Klapatiuk, President, International Logistical Support Inc. (ILS), [Evidence](#), 8 April 2019.

Michael Byers provided a different approach in assessing the current geopolitics of the Arctic. In his view, “Russia is not a state-to-state threat to Canada in the Arctic,” and “Russia has lots of Arctic of its own. It has no need to claim or aspire to more.”²⁸⁶ Jessica Shadian also pointed out that Russia’s Arctic Strategy “makes the case that the Arctic is critical to the future of the Russian economy,”²⁸⁷ and David Barber indicated that today “Russia generates about 26 per cent of its GDP from the Arctic.”²⁸⁸ Combined with the largest population residing in the Arctic (Figure 11), this suggests that Russia will likely continue to re-build some of its military infrastructure²⁸⁹ in the Arctic, if only to protect its strategic assets and population centres.

Nevertheless, according to official statistics provided by Robert Huebert, Russian military expenditures pale in comparison with the United States and the North Atlantic Treaty Organization (NATO).²⁹⁰ In 2016, Russia’s military spending was US\$69 billion (4% of the global total) while the United States invested US\$611 billion (36% of the global total) and China’s military spending was US\$215 billion (13% of the global total).²⁹¹ Updated 2018 data shows that Russia’s military expenditures declined to US\$63 billion,²⁹² while the United States spent US\$643 billion, NATO (excluding the United States) invested US\$264 billion, and China had a US\$168 billion defence budget.²⁹³

²⁸⁶ Michael Byers, Professor and Canada Research Chair, Department of Political Science, University of British Columbia, As an Individual, *Evidence*, 18 March 2019.

²⁸⁷ Jessica Shadian, CEO and Founder, Arctic 360, The Emerging Economy of the North American Arctic: Infrastructure Investment Analysis, 8 April 2019.

²⁸⁸ David Barber, Professor, University of Manitoba, *Evidence*, 16 April 2018.

²⁸⁹ Adam Lajeunesse, Irving Shipbuilding Chair in Canadian Arctic Marine Security, Mulroney Institute of Government, St. Francis Xavier University, As an Individual, *Evidence*, 1 April 2019.

²⁹⁰ Robert Huebert, Associate Professor, Department of Political Science, University of Calgary, As an Individual, *The New Arctic Strategic Triangle Environment (NASTE): Ramifications for Canada*, 3 April 2019.

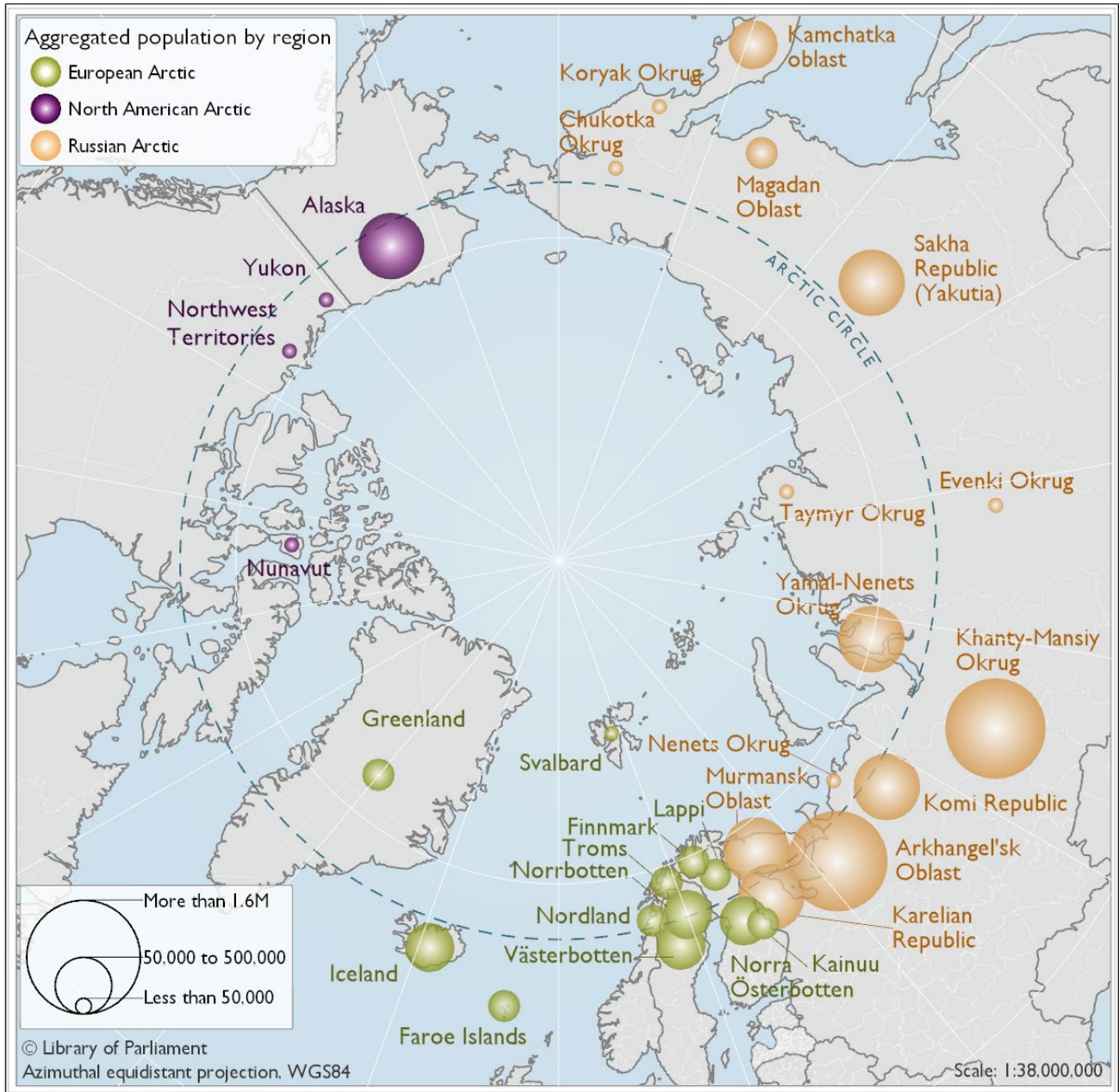
²⁹¹ Robert Huebert, Associate Professor, Department of Political Science, University of Calgary, As an Individual, *The New Arctic Strategic Triangle Environment (NASTE): Ramifications for Canada*, 3 April 2019.

²⁹² Under NATO defence-spending definition. See: International Institute of Strategic Studies, “Chapter Two: Comparative Defence Statistics,” in *The Military Balance*, Vol. 119, No. 1, 2019, pp. 21-27.

²⁹³ North Atlantic Treaty Organization, *Defence Expenditure of NATO Countries (2011-2018)*, Communique PR/CP(2018)091, 10 July 2018; and International Institute of Strategic Studies, “Chapter Two: Comparative Defence Statistics,” in *The Military Balance*, Vol. 119, No. 1, 2019, pp. 21-27.

Northern Lights: A Wake-Up Call for the Future of Canada

Figure 11 – Arctic Population Centres



Source: Map prepared by the Library of Parliament, Ottawa, 2019, using data from [Natural Earth](#), 1:50m and 1:10 Cultural Vectors and 1:50m Physical Vectors, version 4.1.0; and Timothy Heleniak, Eva Turunen and Shinan Wang, "[Cities on Ice: Population change in the Arctic](#)," *Nordregio Magazine*, Vol. 4, 2018. The following software was used: Esri, ArcGIS PRO, version 2.1.0.

For his part, Adam Lajeunesse cautioned the committee against conflating different Arctic regional realities. In his opinion:

...the Arctic is not one region with common security concerns. It's a series of different regions with very distinct areas with very distinct security concerns. As such, there are no universal Arctic defence issues. While great power conflict seems to be re-emerging in the European Arctic, this has not extended into the Canadian North, and to its credit, the Canadian Armed Forces and the Government of Canada have recognized that. Efforts here at home have, therefore, been focused on unconventional security concerns, search and rescue, disaster response, constabulary duties and support to the civilian power.²⁹⁴

Regarding the increased presence of China in the Arctic, Adam Lajeunesse observed that:

Chinese investment and shipping activity have largely been in the Russian Arctic, with relatively little attention paid to Canada's northern territories. This activity does not necessarily translate into a security threat, as is sometimes assumed. China's interests are primarily economic, and it's hard to see what the Chinese could hope to accomplish strategically by deploying military assets into or anywhere near the Canadian Arctic.²⁹⁵

Yet, he indicated that “new assets like the Arctic Offshore and Patrol Vessels and the Nanisivik naval base are important tools for enhancing Canada’s ability to exercise control in the region and to respond quickly to unconventional security threats.”²⁹⁶

To ensure effective enforcement of Canadian regulations and discourage attempts to delegitimize Canada’s sovereignty over its Arctic waters, the committee recommends:

25. That the Government of Canada enhance maritime and aerial situational awareness of the Canadian Arctic, including improving the icebreaking capacity of the Canadian Coast Guard, and equipping the Canadian Rangers’ with marine capabilities.

C. Avenues for Cooperation in a Changing Arctic

The contrasting testimony above seems to suggest that the perspective of Arctic exceptionalism may be an insufficient approach to understand the region. The Arctic is not hermetically sealed from

²⁹⁴ Adam Lajeunesse, Irving Shipbuilding Chair in Canadian Arctic Marine Security, Mulroney Institute of Government, St. Francis Xavier University, As an Individual, *Evidence*, 1 April 2019.

²⁹⁵ Adam Lajeunesse, Irving Shipbuilding Chair in Canadian Arctic Marine Security, Mulroney Institute of Government, St. Francis Xavier University, As an Individual, *Evidence*, 1 April 2019.

²⁹⁶ Adam Lajeunesse, Irving Shipbuilding Chair in Canadian Arctic Marine Security, Mulroney Institute of Government, St. Francis Xavier University, As an Individual, *Evidence*, 1 April 2019.

global dynamics and its future can take different trajectories. Given the uncertainties resulting from environmental, socio-economic and geopolitical factors, Whitney Lackenbauer made a case for dialogue and reinforced international cooperation to ensure regional peace and stability. He indicated:

*Circumpolar cooperation should not be held political hostage to broader geostrategic rivalries. We might look back to the Cold War and the important leadership roles that Indigenous organizations, scientists and NGOs, working in close concert with the federal government, played in working with their Soviet counterparts to share scientific and traditional knowledge as well as best practices in governance. I hope we can find space for similar relationships today and into the future.*²⁹⁷

He also added that vigilance and enhanced international cooperation are not mutually exclusive:

*We should operate from a position of confidence in our Arctic policy and, in turn, our Arctic and northern policy framework should reiterate, wherever possible, that Canada welcomes navigation in our Arctic waters as we do elsewhere, provided that ships respect Canadian regulations related to safety, security, protection of the environment and Indigenous rights holders' interests. This approach also means having robust capabilities to maintain vigilance in ensuring that these vessels are not undertaking activities against Canadian laws or counter to our national welfare.*²⁹⁸

Artur Wilczynski provided the example of Norway's "sophisticated" approach to Arctic issues and its Russian neighbour:

*It [Norway] has a geographic land border with Russia. It needs to manage everything from fisheries to cross-border issues with the Russians while being a NATO member state. It had a level of sophistication in managing that complexity.*²⁹⁹

The committee also heard from Robert Huebert that military security dialogue between all eight Arctic states has been discontinued due to conflicts outside of the region.³⁰⁰ Although the Arctic Council is the prime forum for Arctic cooperation, questions of military security have always been kept outside of the mandate of the Council. Therefore, it appears to the committee that Arctic states may benefit from establishing a forum dedicated to Arctic security issues to facilitate information-sharing, reduce uncertainty, and limit the potential for escalation of tensions.

Regarding the place of China in the Arctic, Artur Wilczynski indicated:

²⁹⁷ Whitney Lackenbauer, Canada Research Chair (Tier 1) in the Study of the Canadian North and Professor, School for the Study of Canada, Trent University, As an Individual, [Evidence](#), 18 March 2019.

²⁹⁸ Whitney Lackenbauer, Canada Research Chair (Tier 1) in the Study of the Canadian North and Professor, School for the Study of Canada, Trent University, As an Individual, [Evidence](#), 18 March 2019.

²⁹⁹ Artur Wilczynski, Director General, Communications Security Establishment and former Canadian Ambassador to Norway, As an Individual, [Evidence](#), 20 March 2019.

³⁰⁰ Robert Huebert, Associate Professor, Department of Political Science, University of Calgary, As an Individual, [Evidence](#), 3 April 2019.

I think that it is appropriate to have diplomatic and other forms of engagement. To understand and work in partnership, where appropriate, to manage that delicate ecosystem. One doesn't have to be in the Arctic to affect the Arctic. There are a lot of conversations that are linked to climate change and mitigation measures that are relevant, because what happens in places like China affects, for example, black carbon deposits in the Arctic.³⁰¹

To assuage concerns regarding China's economic activities in the Arctic, Jessica Shadian recommended Canada to "take the lead in bringing the idea of an Arctic Infrastructure Bank to the Arctic Council."³⁰² In her opinion, an infrastructure bank could "ensure that non-Arctic state investment is guided by an institutional framework and conditions for investments."

In the committee's view, a circumpolar Arctic Infrastructure Bank may be an avenue for Canada to leverage foreign and domestic capital to support infrastructure building in its vast Arctic. Such a regional development bank, by creating additional channels of communication and linkages, could also contribute to enhance Arctic cooperation and integration. In fact, to close the infrastructure gap in the Canadian Arctic, Jessica Shadian suggested Canada to take inspiration from Russia's and the Nordic Council's Arctic economic strategies.³⁰³ Both strategies integrate Arctic development into their respective overall economic visions.

The committee recommends:

26. That the Government of Canada propose the establishment of a Pan-Arctic Infrastructure Bank at the Arctic Council and ensure an improved investment climate and trade flow in the circumpolar Arctic Region.

27. That, to ensure regional stability and facilitate information-sharing, the Government of Canada establish a forum dedicated to Arctic security issues involving the participation of all Arctic states.

Inuit and Arctic First Nations' International Priorities

Considering the focus on the Arctic's original inhabitants in the motion establishing this committee, Inuit and Arctic First Nations' views and priorities regarding the international dimensions of Canada's upcoming Arctic and Northern Policy Framework are of utmost importance. The Inuit Circumpolar

³⁰¹ Artur Wilczynski, Director General, Communications Security Establishment and former Canadian Ambassador to Norway, As an Individual, *Evidence*, 20 March 2019.

³⁰² Jessica Shadian, CEO and Founder, Arctic 360, *Evidence*, 8 April 2019.

³⁰³ Jessica Shadian, CEO and Founder, Arctic 360, *Evidence*, 8 April 2019.

Council Canada, part of the ICC³⁰⁴ - a permanent participant at the Arctic Council representing 160,000 Inuit of Alaska, Canada, Greenland, and Chukotka (Russia) - stated:

It [Canada's future Arctic and Northern Policy Framework] must emphasize the essential role of Inuit as a central player in Canadian Arctic diplomacy and support Inuit. In doing so, it must also recognize the rights, interests, and decision-making role of Inuit, as Arctic residents. It must understand that Inuit use and occupy Inuit Nunaat³⁰⁵ – their homeland, that Inuit are the stewards of the land, and, given appropriate infrastructure, are the principal players in Canada's Arctic sovereignty and security.³⁰⁶

A. Arctic Sovereignty: Co-Management of the Inuit Homeland

Aluki Kotierk, President of Nunavut Tunngavik Incorporated, described the ambivalent relationship that Inuit have with the way the concept of Arctic sovereignty is typically approached by the federal government. She told the committee:

What we've experienced throughout history has been that Canada swoops in when they need us for sovereignty reasons and various initiatives that serve the purpose of Canada. Whether it be resource extraction or sovereignty, Canada is present. But when there's no use for Canada, then we feel forgotten.³⁰⁷

Peter Hutchins pointed out the transnational outlook of the Inuit people:

What Inuit have to offer, above all, is a new imagination. Historically and culturally, that imagination is given to openness and sharing, not closure and exclusion. With brothers and sisters in three other Arctic countries, the outlook of Inuit tends to be transnational. Thus, it is suited to Arctic problems, whose origins more often than not ignore borders and whose solutions typically require for international cooperation than unilateral action behind national frontiers.³⁰⁸

Peter Hutchins also mentioned the ICC's 2009 *A Circumpolar Inuit Declaration on Sovereignty in the Arctic*.³⁰⁹ Article 1.1 of that document emphasized that "the Arctic is [the Inuit people's] home," and Article 2.1 states that the issue of "sovereignty and sovereign rights must be examined and assessed in the context of [the Inuit people's] long history of struggle to gain recognition and respect as an Arctic indigenous people having the right to exercise self-determination over [their] lives, territories, cultures and languages." As Canada's sovereignty claims in the Arctic are grounded in Canada-Inuit

³⁰⁴ Inuit Circumpolar Council, [About ICC](#).

³⁰⁵ *Inuit Nunaat* refers to the Inuit homeland internationally while *Inuit Nunangat* designates the Inuit territory in Canada.

³⁰⁶ Inuit Circumpolar Council Canada, *Brief*, March 2019.

³⁰⁷ Aluki Kotierk, President, Nunavut Tunngavik Incorporated, [Evidence](#), 26 March 2018.

³⁰⁸ Peter W. Hutchins, Lawyer, Hutchins Legal Inc., [Evidence](#), 1 April 2019.

³⁰⁹ Inuit Circumpolar Council, [A Circumpolar Inuit Declaration on Sovereignty in the Arctic](#), April 2009.

land claims agreements, in the committee's opinion, these treaties require a partnership between Canada and Inuit and the co-management of the lands and waters.³¹⁰

In that spirit, the Inuit Circumpolar Council Canada suggested that the Hans Island dispute between Canada and Denmark could be resolved by having Inuit from Canada and Greenland jointly managing the island and the nearby Pikialasorsuaq area.³¹¹ As for the Canada-United States dispute in the Beaufort Sea, the Council recommended the area to be "designated a transboundary Indigenous marine protected area jointly managed by Inuvialuit from Canada and Inupiat from Alaska."³¹²

B. Arctic Diplomacy and Development of International Agreements

1. Indigenous Relationships and Mobility Across the Circumpolar Arctic

In the view of the ICC, the organization is:

particularly well-placed to facilitate positive international circumpolar relations: with Greenland, whom has a semi-autonomous government with jurisdiction over offshore resources; diplomacy with Russia with ICC's close ties to the Russian Association of Indigenous Peoples of the North; assisting the United States with the current international chair of ICC residing in Alaska, and; playing a role in Arctic-related diplomacy with China and other non-Arctic states, many of which are observers to the Arctic Council, some of whom invite the ICC to participate in conferences and other meetings on Arctic issues.³¹³

Therefore, the committee believes it is in Canada's interest to support an enhanced Inuit and Arctic First Nations role in circumpolar diplomacy and cooperation. To do so, the Inuit Circumpolar Council Canada recommended the federal government to increase the support for Indigenous permanent participants at the Arctic Council both "financially and through working partnerships with government departments."³¹⁴

During the committee's visit to Yellowknife, members also learnt from the Gwich'in Tribal Council that the "Gwich'in have a unique status as part of a trans-border, broad Gwich'in Nation, whose traditional territory and peoples extends across the Northwest Territories, Yukon Territory and the State of Alaska."³¹⁵ Due to the trans-border nature of the Gwich'in Nation, the Gwich'in Tribal Council recommended the federal government to facilitate mobility of the Gwich'in peoples across the

³¹⁰ Peter W. Hutchins, Lawyer, Hutchins Legal Inc., *Evidence*, 1 April 2019.

³¹¹ Pikialasorsuaq, or "Great Upwelling," is the largest Arctic polynya and the most biologically productive region north of the Arctic Circle. It is located between Nunavut and Greenland. In 2017, the Inuit Circumpolar Council's Pikialasorsuaq Commission published a [report](#) recommending, among other things, that Pikialasorsuaq be jointly managed by Canada and Greenland.

³¹² Inuit Circumpolar Council Canada, *Brief*, March 2019.

³¹³ Inuit Circumpolar Council Canada, *Brief*, March 2019.

³¹⁴ Inuit Circumpolar Council Canada, *Brief*, March 2019.

³¹⁵ Jordan Peterson, Deputy Grand Chief and Vice-President, Gwich'in Tribal Council, Committee fact finding trip, Yellowknife, Northwest Territories, 10 September 2018.

Canada-United States border. The Council indicated that this could be accomplished through the implementation of the Jay Treaty and through making Indian Status cards more accessible.

The committee recommends:

28. That, to reinforce international Arctic cooperation, the Government of Canada increase its involvement at the Arctic Council as well as bolster funding for Indigenous permanent participants of the Council.

2. *Inclusion of Indigenous Rights in International Agreements*

The Honourable Charlie Watt, President of Nunavik's Makivik Corporation, indicated that, until recently, international agreements were adopted without proper consideration of Indigenous interests and voices. He stated:

*We need Canada to stand up for us during negotiations with other countries – Why aren't Inuit handcrafts part of NAFTA [North American Free Trade Agreement]? Inuit made seal products and ivory are not permitted into the United States.*³¹⁶

While recognizing that the 2007 United Nations *Declaration on the Rights of Indigenous Peoples* provides support for Indigenous rights, the Honourable Charlie Watt mentioned that it is only referenced in recent international agreements.³¹⁷ Robin Campbell indicated that there is, for example, “no recognition in UNCLOS for the rights of Indigenous peoples, such as the right to marine areas, the right to the migratory marine mammals and fish that may be present in these waters, or to the benefits of resources extracted from the Arctic Ocean.”³¹⁸ Therefore, in her view, the upcoming Arctic and Northern Policy Framework is an “opportunity to state that Canada will support Inuit gaining a role in Arctic Ocean governance, in particular, in the UNCLOS system,” and to set up mechanisms to allow Indigenous participation in the development of international agreements that impact Arctic residents.

Recalling the 2018 *Utqiagvik Declaration*³¹⁹ mandating the ICC to “initiate diplomatic talks for the purpose of laying the groundwork for negotiations to declare the Arctic as a Peaceful Zone,” the ICC also urged the federal government to sign and ratify the United Nations 2017 *Treaty on the Prohibition of Nuclear Weapons*.³²⁰ That treaty is not yet in force but has been signed by 70 states to

³¹⁶ Charlie Watt, President, Makivik Corporation, *Evidence*, 26 March 2018.

³¹⁷ Charlie Watt, President, Makivik Corporation, *Evidence*, 26 March 2018.

³¹⁸ Robin Campbell, Lawyer, Hutchins Legal Inc., *Evidence*, 1 April 2019.

³¹⁹ Inuit Circumpolar Council, *Utqiagvik Declaration*, 2018.

³²⁰ Inuit Circumpolar Council Canada, Brief, March 2019.

date.³²¹ In the view of the ICC, the Government of Canada should “unequivocally state that it opposes the presence of nuclear weapons in the Arctic.”

The committee recommends:

29. That the Government of Canada increase Arctic Indigenous representation at international forums and treaty negotiations related to the Arctic, including the *United Nations Convention on the Law of the Sea* process.

C. Marine Shipping and Supporting Community Infrastructure

The committee notes that, in the view of Inuit and Arctic First Nations, the issue of sovereignty and security should be considered in a widened perspective to also encompass human security – i.e., the well-being of the Arctic’s inhabitants. Article 3.12 of the ICC’s *A Circumpolar Inuit Declaration on Sovereignty in the Arctic*, for example, states that the “foundation, projection and enjoyment of Arctic sovereignty and sovereign rights all require healthy and sustainable communities in the Arctic. In this sense, ‘sovereignty begins at home.’”³²² Therefore, the committee believes that Arctic sovereignty goes beyond geographic claims and includes the partnership between the federal government and Inuit and Arctic First Nations in fostering self-determination, economic development, infrastructure building, and environmental conservation.

As Inuit’s “historic and ongoing use and occupation of the Arctic” is fundamental to Canada’s legal position regarding the Northwest Passage as “internal waters”, the Inuit Circumpolar Council Canada emphasized that discussions about marine shipping regulations and establishment of navigation corridors in the Arctic Ocean “must take place with Inuit centrally involved because of the risks to their environment and food security, and because of their invaluable Indigenous knowledge.”³²³

Since the use of heavy fuel oil in Arctic marine shipping is a major contributor to black carbon emissions, which absorb sunlight and potentially accelerate climate change, the Inuit Circumpolar Council Canada also recommended the federal government to “embrace efforts within the IMO to ban the use of heavy fuel oil in the Arctic.”³²⁴ It should be noted that the Arctic Council Framework for Action on Enhanced Black Carbon and Methane Emissions Reductions was developed and adopted during the last Canadian chairmanship of the Arctic Council, and the Expert Group on Black Carbon and Methane was established at the Iqaluit Ministerial in support of its implementation. In

³²¹ United Nations Office for Disarmament Affairs, *Treaty on the Prohibition of Nuclear Weapons*.

³²² Inuit Circumpolar Council, *A Circumpolar Inuit Declaration on Sovereignty in the Arctic*, April 2009.

³²³ Inuit Circumpolar Council Canada, Brief, March 2019.

³²⁴ Inuit Circumpolar Council Canada, Brief, March 2019.

2017, the Expert Group adopted the goal to reduce emissions of black carbon by 25 to 33% below 2013 levels by 2025.³²⁵

As shipping activities are expected to increase in Arctic waters, so is the potential for incidents requiring search and rescue operations. However, most of these operations are currently run from distant southern Canadian bases.³²⁶ Gary Stern reminded the committee that Canada must also contend with a declining icebreaking capacity.³²⁷ Consequently, the Inuit Circumpolar Council Canada urged Canada to improve community energy, air and marine infrastructure to ensure reliable platforms for National Defence and Coast Guard operations as “Canada’s sovereignty is best served by resilient communities.”³²⁸

Referring to the grounding of the *Akademik Ioffe* vessel in summer 2018 off the coast of Kugaaruk, Nunavut costing the Department of National Defence \$513 000, the Inuit Circumpolar Council Canada observed that “Inuit are always the first to respond to an emergency, and in doing so with limited training and resources they risk their own safety and security.”³²⁹ Therefore, the Council also recommended the federal government to enhance search and rescue and emergency protection infrastructure and training in Inuit communities.

Both the Inuit Circumpolar Council Canada and the Inuvialuit Regional Corporation linked opportunities for infrastructure building in the Arctic with diversification of the local economy for the benefits of Arctic residents. In the Inuvialuit Regional Corporation’s view, the federal government should engage directly with Inuit in the management of the country’s security assets on a long-term basis.³³⁰ The Inuit Circumpolar Council Canada added:

*If new infrastructure is to be built, where and by whom should it be built and operated? If new or improved services are to be provided, such as search-and-rescue equipment and personnel based in the Arctic, where will they be based and who will be employed? These are opportunities for Inuit to improve safety, diversify their economy, and build equity through social enterprises that keep benefits in the Arctic.*³³¹

The committee recommends:

³²⁵ Government of Canada, *Arctic Council action for reducing black carbon and methane emissions*.

³²⁶ Senate, Standing Committee on Fisheries and Oceans, *When Every Minute Counts: Maritime Search and Rescue*, 1st Session, 42nd Parliament, November 2018.

³²⁷ Gary Stern, Professor, University of Manitoba, *Evidence*, 30 April 2018.

³²⁸ Inuit Circumpolar Council Canada, *Brief*, March 2019.

³²⁹ Inuit Circumpolar Council Canada, *Brief*, March 2019.

³³⁰ Duane Smith, Chair and CEO, Inuvialuit Regional Corporation, Committee fact finding trip, Yellowknife, Northwest Territories, 10 September 2018.

³³¹ Inuit Circumpolar Council Canada, *Brief*, March 2019.

30. That the Government of Canada address the urgent need to enhance search and rescue and emergency protection infrastructure in the Arctic and ensure Arctic Indigenous communities are involved in the management of this infrastructure.

Regarding foreign investment in the Arctic, in the Inuvialuit Regional Corporation's opinion, corporate social responsibility is essential. The organization told the committee the upcoming Arctic and Northern Policy Framework should "direct Canada to assert the utmost care in the granting of access to foreign-owned companies in our national resources."³³² The Inuvialuit Regional Corporation indicated that the Arctic "must not be for sale to companies that have not demonstrated the requisite level of commitment to the Canadian Arctic and a good corporate social responsibility track record."

On this topic of corporate social responsibility, the committee also learnt from Eirik Sivertsen that the 2018 Conference Statement adopted by parliamentarians of the Arctic Region, including members of the Sami Parliamentary Council and the Russian Association of Indigenous Peoples of the North, promotes the "creation of an Arctic Corporate Social Responsibility initiative as a platform for sharing ideas in finding best solutions and taking into consideration environmental standards and the well-being of the residents of the Arctic, and disclosing, in an accessible manner, basic information about corporations operating in the Arctic."³³³

³³² Duane Smith, Chair and CEO, Inuvialuit Regional Corporation, Committee fact finding trip, Yellowknife, Northwest Territories, 10 September 2018.

³³³ Conference of Parliamentarians of the Arctic Region, *Conference Statement*, Inari, Finland, 19 September 2018, Supplementary document provided to the committee.

APPENDIX A: WITNESSES WHO APPEARED BEFORE THE COMMITTEE

FEBRUARY 12, 2018
<i>Crown-Indigenous Relations and Northern Affairs Canada:</i>
Stephen Van Dine, Assistant Deputy Minister, Northern Affairs;
Wayne Walsh, Director General, Northern Strategic Policy Branch, Northern Affairs.
FEBRUARY 26, 2018
<i>Government of Northwest Territories:</i>
The Honourable Bob McLeod, Premier of the Northwest Territories (by video conference).
<i>Government of Nunavut:</i>
The Honourable Paul Aarulaaq Quassa, Premier of Nunavut;
Virginia Mearns, Associate Deputy Minister, Executive and Intergovernmental Affairs.
MARCH 19, 2018
<i>Polar Knowledge Canada:</i>
David J. Scott, President and Chief Executive Officer.
<i>As individuals:</i>
Christopher Burn, Chancellor's Professor of Geography, Carleton University;
Louis Fortier, Professor, Laval University and ArcticNet Network of Centres of Excellence Canada.
<i>Arctic Eider Society:</i>
Joel Heath, Executive Director.
MARCH 26, 2018
<i>Nunavut Tunngavik Inc.:</i>
Aluki Kotierk, President.
<i>Makivik Corporation:</i>
The Honourable Charlie Watt (former senator), President.
APRIL 16, 2018
<i>Global Affairs Canada:</i>
Alan Kessel, Assistant Deputy Minister Legal Affairs and Legal Adviser;
Alison LeClaire, Senior Arctic Official and Director General, Circumpolar & Eastern European Relations.

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<i>As an individual:</i>
David Barber, Professor, University of Manitoba (by video conference).
APRIL 23, 2018
<i>Inuvialuit Regional Corporation:</i>
Bob Simpson, Director, Government Affairs.
<i>Nunatsiavut Government:</i>
Johannes Lampe, President;
Isabella Pain, Deputy Minister, Nunatsiavut Secretariat.
APRIL 30, 2018
<i>As an individual:</i>
Gary Stern, Professor, University of Manitoba (by video conference).
MAY 28, 2018
<i>Employment and Social Development Canada:</i>
Adam Fritz, Director, Indigenous Coordination and Engagement;
Jean-Pierre Gauthier, Director General, Indigenous Programming Directorate.
<i>National Indigenous Economic Development Board:</i>
Hilda Broomfield Letemplier, Board Member.
<i>Conference Board of Canada:</i>
Adam Fiser, Principal Research Associate and Co-lead, Northern and Aboriginal Policy.
<i>As an individual:</i>
Frances Abele, Professor, School of Public Policy and Administration, Carleton University.
JUNE 11, 2018
<i>Government of Nunavut:</i>
Virginia Mearns, Associate Deputy Minister, Executive and Intergovernmental Affairs (By video conference).
<i>Champagne and Aishihik First Nations:</i>
Steve Smith, Chief (By video conference).
<i>North35 Capital Partners:</i>
Clint Davis, Chief Executive Officer.

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<i>Qikiqtaaluk Corporation:</i>
Sheldon Nimchuk, Director, Project Development and Partnerships.
JUNE 18, 2018
<i>First Air:</i>
Brock Friesen, President and Chief Executive Officer.
<i>New North Networks:</i>
Tom Zubko, President.
SEPTEMBER 24, 2018
<i>Arctic Co-operatives Limited:</i>
Duane Wilson, Vice President of Stakeholder Relations.
OCTOBER 1, 2018
<i>Indigenous Works:</i>
Kelly Lendsay, President and Chief Executive Officer (by video conference).
<i>Mining Association of Canada:</i>
Brendan Marshall, Vice President, Economic and Northern Affairs.
<i>Kitikmeot Inuit Association:</i>
Charlie Lyall, Vice President of Economic Development;
Paul Emingak, Executive Director.
<i>Nunavut Resources Corporation:</i>
Scott Northey, Chief Operating Officer.
OCTOBER 15, 2018
<i>Inuit Tapiriit Kanatami:</i>
Natan Obed, President.
<i>Denendeh Investments Incorporated:</i>
Darrell Beaulieu, Chief Executive Officer (by video conference).
OCTOBER 22, 2018
<i>Town of Churchill:</i>
Michael Spence, Mayor;

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Cory Young, Executive Director.
City of Iqaluit:
Madeleine Redfern, Mayor.
Anbaric Development Partners:
Philip Duguay, Vice-President, Canada.
Kivalliq Inuit Association:
Tom Garrett, Consultant.
OCTOBER 29, 2018
Transport Canada:
Craig Hutton, Director General, Strategic Policy;
Martin Mckay, Acting Director General, Transportation Infrastructure Program.
Environment and Climate Change Canada:
John Moffet, Assistant Deputy Minister, Environmental Stewardship Branch;
Nancy Hamzawi, Assistant Deputy Minister, Science and Technology Branch.
Fisheries and Oceans Canada:
Neil O'Rourke, Assistant Commissioner, Arctic Region, Canadian Coast Guard;
Gregory Lick, Director General, Canadian Coast Guard;
Farhat Khan, Director General, Financial and Materiel Management Operations and Deputy Chief Financial Officer.
Natural Resources Canada:
André Bernier, Senior Director, Renewable and Electrical Energy Division, Electricity Resources Branch;
Linda Richard, Director, Northern Canada Division, Geological Survey of Canada.
Infrastructure Canada:
Sean Keenan, Director General, Economic Analysis and Results;
Nathalie Lechasseur, Director General, Programs Integration.
Crown-Indigenous Relations and Northern Affairs Canada:
Wayne Walsh, Director General, Northern Strategic Policy Branch;
Mark Hopkins, Director General, Natural Resources and Environment Branch.

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NOVEMBER 5, 2018

Indigenous Services Canada:

Margaret Buist, Acting Assistant Deputy Minister, Education and Social Development Programs and Partnerships Sector;

Susan Irwin, Senior Policy Manager, Education and Social Development Programs and Partnerships Sector.

Canadian Heritage:

Claudette Lévesque, Director General, Citizen Participation Branch;

Guylain Thorne, Acting Director General, Heritage Group;

Vanessa Mckenzie, Director, Aboriginal Affairs Directorate, Citizen Participation Branch.

NOVEMBER 19, 2018

Nunatsiavut Government:

Belinda Webb, Deputy Minister, Department of Culture, Recreation and Tourism.

Parks Canada:

Gary Baikie, Superintendent, Torngat Mountains National Park.

Inuit Art Foundation:

Alysa Procida, Executive Director and Publisher.

West Baffin Eskimo Cooperative:

William Huffman, Marketing Director.

FEBRUARY 4, 2019

Inuit Broadcasting Corporation:

Bernadette Dean, President;

Debbie Brisebois, Executive Director.

Taqqut Productions:

Neil Christopher, Director and Producer;

Nadia Mike, Producer.

Qaggiavuut!:

Rhoda Ungalaq, Chairperson;

Ellen Hamilton, Executive Director.

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Akpik Theatre:

Renelitta Arluk, Artistic Director and Founder (*by video conference*).

Artcirq:

Guillaume Saladin, President, Acrobat, Co-founder and Co-artistic Director;

Jimmy Awa Qamukaq, Vice-President, Acrobat/Clown and Chief Coordinator in Igloolik.

Avataq Cultural Institute:

Rhoda Kokiapik, Executive Director.

Canada Council for the Arts:

Simon Brault, Director and CEO;

Steven Loft, Director.

Canadian Museum of History:

Karen Ryan, Curator, Northern Canada;

Matthew Betts, Curator, Eastern Archaeology;

Jean-Marc Blais, Director General.

Crown-Indigenous Relations and Northern Affairs Canada:

Diane Lafleur, Associate Deputy Minister, Crown-Indigenous Relations;

Daniel Watson, Deputy Minister;

Wayne Walsh, Director General, Northern Strategic Policy Branch;

Mark Hopkins, Director General, Natural Resources and Environment Branch, Northern Affairs;

Nancy Kearnan, Director General, Northern Governance Branch;

Marla Israel, Director General, Policy and Coordination.

FEBRUARY 27, 2019

The Gordon Foundation:

Blair Hogan, President, Gúnta Business.

As an individual:

Karen Dunmall, Former Liber Ero Post-Doctoral Fellow.

MARCH 18, 2019

Kivalliq Inuit Association:

Luis G. Manzo, Director of Lands;

Brenda Osmond, Lands Administrator.

Hutchison Environmental Sciences Ltd.:

Neil Hutchinson, Principal Scientist.

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<i>Sahtu University of Manitoba:</i>
Jörg Stetefeld, Professor for Biochemistry Tier-1 CRC in Structural Biology and Biophysics.
<i>University of the Arctic:</i>
Peter Sköld, Chair, Board of Governors (by video conference).
<i>As individuals:</i>
Michael Byers, Professor and Canada Research Chair, Department of Political Science, University of British Columbia (by video conference);
Suzanne Lalonde, Professor, Faculty of Law, Université de Montréal;
Whitney Lackenbauer, Canada Research Chair (Tier 1) in the Study of the Canadian North and Professor, School for the Study of Canada, Trent University (by video conference).
<i>Arctic Athabaskan Council:</i>
Cindy Dickson, Executive Director (by video conference).
MARCH 20, 2019
<i>Arctic Institute of Community-Based Research:</i>
Coral Voss, Executive Director;
Norma Kassi, Co-Founder and Director of Indigenous Collaboration.
<i>As an individual:</i>
Artur Wilczynski, Director General, Communications Security Establishment and former Canadian Ambassador to Norway.
APRIL 1, 2019
<i>International Union for Circumpolar Health:</i>
Mikhail Voevoda, President and Professor of Medicine, Institute of Internal Medicine of Siberian Branch of Russian Academy of Medical Science (by video conference);
Anders Koch, Past President and Professor, Ilisimatusarfik, University of Greenland (by video conference).
<i>Agnico Eagle Mines Limited:</i>
Patrice Gilbert, Vice President, Health Safety and Community.
<i>Oceans North:</i>
Christopher Debicki, Vice President, Policy Development and Counsel.
<i>Qikiqtani Inuit Association:</i>
Sandra Kunuk Inutiq, Chief Negotiator, Tallurutiup Imanga Inuit Impact Benefit Agreement.

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As individuals:

Jennifer Provencher, Liber Ero Post-Doctoral Fellow;

Lotfollah (Lot) Shafai, Distinguished Professor Emeritus, Department of Electrical and Computer Engineering, University of Manitoba.

Maribeth S. Murray, Executive Director, Arctic Institute of North America and Professor, University of Calgary.

Adam Lajeunesse, Irving Shipbuilding Chair in Canadian Arctic Marine Security, Mulroney Institute of Government, St. Francis Xavier University.

International Arctic Science Committee (IASC):

Larry Hinzman, President (by video conference).

Hutchins Legal Inc.:

Peter W. Hutchins, Lawyer;

Robin Campbell, Lawyer.

Aqqiumavvik Society:

Shirley Tagalik, Director.

As individuals:

Claudio Aporta, Director, Marine Affairs Program, Dalhousie University (by video conference);

Karla Jessen Williamson, Assistant Professor, Ed Foundations, University of Saskatchewan.

Fisheries Joint Management Committee:

Gerald Inglangasuk, Inuvialuit Member;

Burton Ayles, Canada Member.

Indigenous Leadership Initiative:

Valérie Courtois, Director.

APRIL 3, 2019

Canada Research Coordinating Committee:

Ted Hewitt, Chair and President of Social Sciences and Humanities Research Council (SSHRC).

Canadian Institutes of Health Research:

Tammy Clifford, Vice President, Research Programs.

Natural Sciences and Engineering Research Council of Canada:

Marc Fortin, Vice President, Research Partnerships, and Chief Operating Officer.

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Canada Foundation for Innovation (CFI):

David Moorman, Senior Advisor, Policy and Planning.

As individuals:

Jocelyn Joe-Strack, Consultant and PhD student, Subarctic Research and Strategy, University of Saskatchewan (by video conference);

Theo Ikummaq, Iglulingmiut, Hunter, Environmentalist, Cultural Advocate;

Gita J. Ljubicic, Associate Professor, Carleton University;

Robert Huebert, Associate Professor, Department of Political Science, University of Calgary.

APRIL 8, 2019

As individuals:

Eirik Sivertsen, Member of Parliament, Chair of the Standing Committee of the Parliamentarians of the Arctic Region, Stortinget (by video conference);

Bjørn Willy Robstad, Senior Advisor, International Department, Office of Eirik Sivertsen, MP.

WWF-Canada:

Paul Crowley, Vice President, Arctic.

International Logistical Support Inc. (ILS):

Les Klapatiuk, President.

New North Networks:

Paul A. Komaromi, Projects Manager.

As an individual:

Ken Coates, Professor and Canada Research Chair in Regional Innovation, School of Public Policy, University of Saskatchewan.

Arctic 360:

Jessica Shadian, CEO and Founder.

Qikiqtani Inuit Association:

Stephen Williamson Bathory, Executive Advisor (by video conference).

APPENDIX B: WITNESSES WHO APPEARED DURING THE FACT-FINDING MISSION

ORGANIZATION	NAME	DATE OF APPEARANCE
Kuujuuaq	Tunu Napartuk, Mayor	
Kativik Regional Government	Véronique Gilbert, Project Manager, Renewable Resources, Environment, Lands and Parks Department	Sept 5, 2018
Kativik Regional Government	Victoria Gordon, Assistant Director, Programs, Sustainable Employment Department	Sept 5, 2018
Kativik Regional Government	Jennifer Munick, Chair	Sept 5, 2018
Nunavik Toursim	Isabelle Dubois, Marketing & Media Relations Coordinator	Sept 5, 2018
NEAS Group	Suzanne Paquin, President and CEO	Sept 5, 2018
Government of Quebec	Marc-Antoine Fortin, Development Officer, Société du Plan Nord	Sept 5, 2018
Iqaluit Chamber of Commerce	Robynn Pavia, Manager of Marketing & Research	Sept 7, 2018
Iqaluit Chamber of Commerce	Kevin Kelly, Chief Executive Officer	Sept 7, 2018
Iqaluit Chamber of Commerce	Gabrielle Morrill, Economic Development Officer	Sept 7, 2018
Iqaluit Chamber of Commerce	Ted Walker, Manager	Sept 7, 2018
Iqaluit Chamber of Commerce	Bruno Pereira, President and Chief Operating Officer	Sept 7, 2018
Iqaluit Chamber of Commerce	Matthew Clark, President and Regional Manager, Nunavut Arctic Cooperatives	Sept 7, 2018
Makivik Corporation	Anne-Marie Kauki, Secretary, Nunavik Research Centre	Sept 7, 2018
Makivik Corporation	Claude Makiuk, Research Technician, Nunavik Research Centre	Sept 7, 2018
Makivik Corporation	Lilian Tran, Fisheries Biologist, Nunavik Research Centre	Sept 7, 2018
Makivik Corporation	Mackenzie Martyniuk, MSc Student, Nunavik Research Centre	Sept 7, 2018
Makivik Corporation	Michael Kwan, Toxicologist, Nunavik Research Centre	Sept 7, 2018
Makivik Corporation	Sandy Suppa, Wildlife Technician, Nunavik Research Centre	Sept 7, 2018
Makivik Corporation	Ellen Avard, Director, Nunavik Research Centre	Sept 7, 2018
Makivik Corporation	Nathan Cohen-Fournier, Socio-Economic Development Officer	Sept 7, 2018
Makivik Corporation	Jean Dupuis, Chief of Staff, Office of the President	Sept 7, 2018

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ORGANIZATION	NAME	DATE OF APPEARANCE
Makivik Corporation	Charlie Watt, President	Sept 7, 2018
Regional Health Centre	Alvsa Araęutak, Executive Director	Sept 7, 2018
Isuarsivik	Dave Forrest, Chairperson	Sept 7, 2018
Nunavik Hunting, Fishing and Trapping Association	Jimmy Johannes, Executive Secretary	Sept 7, 2018
Kativik Ilisarniliriniq	Victoria Simigak, Assistant Director, First Language Curriculum	Sept 7, 2018
Kativik Ilisarniliriniq	Sarah Aloupa, School Board Commissioner	Sept 7, 2018
Kativik Ilisarniliriniq	Robert Watt, President	Sept 7, 2018
Kativik Ilisarniliriniq	Harriet Keleutak, Director General	Sept 7, 2018
Agnico Eagle Mines	Devon Killulark, Role Model	Sept 8, 2018
Agnico Eagle Mines	Gabriel Ulayok , Role Model and Mine & Surface Worker	Sept 8, 2018
Agnico Eagle Mines	Benjamin Kusugak, Role Model and Energy & Infrastructure	Sept 8, 2018
Agnico Eagle Mines	Robyn Leigh Tungua, Role Model and Process Plant Worker	Sept 8, 2018
Agnico Eagle Mines	Blandina Kashla, Role Model and Human Resources Agent	Sept 8, 2018
Agnico Eagle Mines	Peter Tapatai, Community Relations	Sept 8, 2018
Agnico Eagle Mines	Ian-Joey Amarook, Role Model and Trainer – Simulator	Sept 8, 2018
Agnico Eagle Mines	Courtney Squires, IIBA Coordinator	Sept 8, 2018
Agnico Eagle Mines	Markus Uchtenhagen, H&S Superintendent	Sept 8, 2018
Agnico Eagle Mines	Stéphanie Boucher, Maintenance General Supervisor	Sept 8, 2018
Agnico Eagle Mines	Michel Desjardins, Trainer – Simulator	Sept 8, 2018
Agnico Eagle Mines	Laurie Théberge, Communications Coordinator	Sept 8, 2018
Agnico Eagle Mines	Luc Chouinard, General Manager	Sept 8, 2018
Kivalliq Inuit Association	Charlie Tautuajuk, Meadowbank IIBA Coordinator	Sept 8, 2018
Kivalliq Inuit Association	Thomas Elytook, Director for Baker Lake	Sept 8, 2018
Hamlet of Baker Lake	Simeon Mikkungwak, MLA for Baker Lake	Sept 8, 2018
Hamlet of Baker Lake	Paula Hughson, Councillor	Sept 8, 2018
Hamlet of Baker Lake	Frank Tootoo, Councillor	Sept 8, 2018
Hamlet of Baker Lake	Karen Yip, Deputy Mayor	Sept 8, 2018
Canadian Northern Economic Development Agency	Sylvie Renaud, Regional Director, Iqaluit	Sept 8, 2018
Northwest Territories Association of Communities	Sara Brown, Executive Director	Sept 9, 2018

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ORGANIZATION	NAME	DATE OF APPEARANCE
Northwest Territories Association of Communities	Clarence Wood, President and Town Councillor in Inuvik	Sept 9, 2018
Nunavut Arctic College	Kayla Carter, Student	Sept 9, 2018
Nunavut Arctic College	Leanne Beaulieu, Student	Sept 9, 2018
Nunavut Arctic College	Nandana Prasad, Coordinator, Community Programs, Kitikmeot Region	Sept 9, 2018
Nunavut Arctic College	Fiona Buchan-Corey, Dean, Kitikmeot Campus	Sept 9, 2018
Nunavut Resources Corporation	Patrick Duxbury, Advisor and Operations Support	Sept 9, 2018
Nunavut Resources Corporation	Charlie Evalik, Chairman	Sept 9, 2018
Nunavut Impact Review Board	Heather Rasmussen, Policy Advisor	Sept 9, 2018
Polar Knowledge Canada	Nancy Karetak-Lindell, Board Member	Sept 9, 2018
Polar Knowledge Canada	Alain Leclair, Director, Science and Technology	Sept 9, 2018
Polar Knowledge Canada	Chris Chisholm, Manager Facilities	Sept 9, 2018
Polar Knowledge Canada	David Scott, President and Chief Executive Officer	Sept 9, 2018
Gwich'in Tribal Council	David MacMartin, Director of Intergovernmental Relations	Sept 10, 2018
Gwich'in Tribal Council	Jordan Peterson, Deputy Grand Chief and Vice President	Sept 10, 2018
Inuvialuit Regional Corporation	Robert Simpson, Director of Government Affairs	Sept 10, 2018
Inuvialuit Regional Corporation	Duane Smith, Board Chair and Chief Executive Officer	Sept 10, 2018
SSi Micro	Jeff Philipp, Founder and Chief Executive Officer	Sept 10, 2018
Government of the Northwest Territories	Shawn McCann, Director, Intergovernmental Relation	Sept 10, 2018
Government of the Northwest Territories	Krystal Pidborochynski, Senior Cabinet Advisor	Sept 10, 2018
Northwest Territories Government	Melissa Cyr, Ministerial Special Advisor to Minsiter Schumann	Sept 10, 2018
Government of the Northwest Territories	Tom Jensen, Deputy Minister, Department of Industry, Tourism and Investment	Sept 10, 2018
Government of the Northwest Territories	Paul Guy, Deputy Minister, Department of Infrastructure	Sept 10, 2018
Government of the Northwest Territories	Wally Schumann, Minister of Industry, Tourism and Investment and Minister of Infrastructure	Sept 10, 2018
Sahtú Land Use Planning Board	Justin Stoyko, GIS Analyst/Planner	Sept 10, 2018
Sahtú Land Use Planning Board	Melanie Harding, Executive Director	Sept 10, 2018
Sahtú Land Use Planning Board	Rick Hardy, Board Member	Sept 10, 2018
Sahtú Land Use Planning Board	Edna Tobac, Board Member	Sept 10, 2018
Sahtú Land Use Planning Board	Dakota Erutse, Vice-Chair	Sept 10, 2018

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ORGANIZATION	NAME	DATE OF APPEARANCE
Sahtú Land Use Planning Board	Heather Bourassa, Board Chair	Sept 10, 2018
Canadian Arctic Resources Committee	Robert Bromley, Board Member	Sept 10, 2018
Canadian Arctic Resources Committee	Lois Little, Board Member	Sept 10, 2018
Northwest Territories & Nunavut Chamber of Mines	Tom Hoefer, Executive Director	Sept 10, 2018
Northwest Territories & Nunavut Chamber of Mines	Gary Vivian, President and Chair of Aurora Geosciences Ltd.	Sept 10, 2018
Dechinta Centre for Research and Learning	Sam Gargan, Elder	Sept 10, 2018
Dechinta Centre for Research and Learning	Jasmine Vogt, Alumni	Sept 10, 2018
Dechinta Centre for Research and Learning	Kelsey Wrightson, Director, Policy & Programming	Sept 10, 2018
Aurora College	Roudtable with 25 students	Sept 11, 2018
Beaufort Delta Education Council	William Logan, Northern Distance Learning Consultant	Sept 11, 2018
Beaufort Delta Education Council	Frank Gallway, Superintendent	Sept 11, 2018
Natural Resources Canada	Jiri Raska, Inuvik Satellite Station Facility Manager	Sept 11, 2018
Government of the Northwest Territories	Peter Clarkson, Director of Regional Operations for the Beaufort Delta and Sahtu Inuvik, Department of Executive and Indigenous Affairs	Sept 11, 2018
Town of Inuvik	Eric Whitworth, Director of Finance	Sept 11, 2018
Town of Inuvik	Natasha Kulikowski, Councillor	Sept 11, 2018
Town of Inuvik	Joe Lavoie, Councillor	Sept 11, 2018
Town of Inuvik	Jim McDonald, Mayor	Sept 11, 2018
Yukon College	Lacia Kinnear, Director of Governance and Strategic Initiatives	Sept 12, 2018
Yukon College	Janet Welch, Vice President Academic and Student Services	Sept 12, 2018
Yukon College	Jacqueline Bedard, Executive Director, External and Government Relations	Sept 12, 2018
Yukon College	Clint Sawicki, Associate Vice President, Research Operations	Sept 12, 2018
Yukon College	Michael Hale, Chief Administrative Officer	Sept 12, 2018

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ORGANIZATION	NAME	DATE OF APPEARANCE
Yukon College	Shelagh Rowles, Executive Director	Sept 12, 2018
Yukon College	Tosh Southwick, Associate Vice President, Indigenous Engagement and Reconciliation	Sept 12, 2018
Yukon College	Karen Barnes, President	Sept 12, 2018
Yukon College	Carrie Boles, Student	Sept 12, 2018
Yukon College	Patricia Quiroga, Student	Sept 12, 2018
Yukon College	Alexandre Mischler, Student	Sept 12, 2018
As an Individual	Rae Mombourquette, Heritage Project Manager, Kwanlin Dün First Nation	Sept 12, 2018
Yukon Chamber of Mines	Kathleen Napier, Policy Analyst	Sept 12, 2018
Yukon Chamber of Mines	Samson Hartland, Executive Director	Sept 12, 2018
Government of Yukon	Stephen Mills, Deputy Minister, Ministry of Energy, Mines and Resources	Sept 12, 2018
Government of Yukon	John Fox, Assistant Deputy Minister, Ministry of Energy, Mines and Resources	Sept 12, 2018
Government of Yukon	Jasmina Randhawa, Assistant Deputy Minister, Corporate Programs and Intergovernmental Relations	Sept 12, 2018
Government of Yukon	Pierre Germain, Director of Tourism, Ministry of Tourism and Culture	Sept 12, 2018
Government of Yukon	Val Royle, Deputy Minister, Ministry of Tourism and Culture	Sept 12, 2018
Government of Yukon	Assistant Deputy Minister, Ministry of Economic Development	Sept 12, 2018
Government of Yukon	Justin Ferbey, Deputy Minister, Ministry of Economic Development	Sept 12, 2018
Government of Yukon	Andrea Buckley, Assistant Deputy Minister, Ministry of Community Services	Sept 12, 2018
Government of Yukon	Deputy Minister, Ministry of Community Services	Sept 12, 2018
Government of Yukon	Jeanie Dendys, Minister of Tourism and Culture	Sept 12, 2018
Government of Yukon	John Stricker, Minister of Community Services	Sept 12, 2018
Government of Yukon	Ranj Pillai, Minister of Economic Development and Minister of Energy, Mines and Resources	Sept 12, 2018
Government of Yukon	Sandy Silver, Premier	Sept 12, 2018

APPENDIX C: WRITTEN SUBMISSIONS

Agnico Eagle
Arctic 360 (Jessica Shadian)
Arctic Eider Society (Joel Heath)
Arctic Fishery Alliance (Harry Earle)
Atlantic Canada Opportunities Agency (Ken Martin, Newfoundland and Labrador)
Beaufort Delta Education Council
Canada Economic Development for Quebec Regions
Canadian Heritage (Claudette Lévesque, Citizen Participation Branch)
Canadian Institutes of Health Research (Tammy Clifford, Research Programs)
Canadian Museum of History
Canadian Northern Economic Development Agency
Christopher Burn, Chancellor's Professor of Geography, Carleton University
Council of Yukon First Nations (James Macdonald, Natural Resources and Environment)
Crown-Indigenous Relations and Northern Affairs Canada (Diane Lafleur)
Crown-Indigenous Relations and Northern Affairs Canada (Wayne Walsh, Northern Strategic Policy Branch)
David Barber, Professor, University of Manitoba
Federation of Canadian Municipalities
First Air (Brock Friesen)
Gary Stern, Professor, University of Manitoba
Government of Northwest Territories
Gwich'in Tribal Council
Hutchins Legal Inc. (Peter W. Hutchins)

Indigenous and Northern Affairs Canada (The Honourable Carolyn Bennett, P.C., M.P.)

Indigenous Leadership Initiative (Valérie Courtois)

Indigenous Services Canada (Margaret Buist, Education and Social Development Programs and Partnerships Sector)

Indigenous Works (Kelly Lendsay)

Infrastructure Canada (Sean Keenan, Economic Analysis and Results)

Inuit Art Foundation (Alysa Procida)

Inuit Broadcasting Corporation (Bernadette Dean)

Inuit Circumpolar Council (Canada)

Inuit Tapiriit Kanatami (Natan Obed)

Inuvialuit Regional Corporation (Bob Simpson, Government Affairs)

Isuarsivik Regional Recovery Centre

Kativik Regional Government

Kitikmeot Inuit Association

Kivalliq Inuit Association (Brenda Osmond)

Lotfollah (Lot) Shafai, Distinguished Professor Emeritus, Department of Electrical and Computer Engineering, University of Manitoba

Louis Fortier, Professor, Laval University and ArcticNet Network of Centres of Excellence

Natural Resources Canada (Linda Richard, Northern Canada Division, Geological Survey of Canada)

Northwest Territories and Nunavut Chamber of Mines

Nunavut Impact Review Board

Nunavut Resources Corporation (Scott Northey)

NWT Association of Communities

Parks Canada (Gary Baikie, Torngat Mountains National Park)

Polar Knowledge Canada (David J. Scott)

Qaggiavuut! (Rhoda Ungalaq)

Qikiqtaaluk Corporation (Sheldon Nimchuk, Project Development & Partnerships)

Robert Huebert, Associate Professor, Department of Political Science, University of Calgary

Sahtú Land Use Planning Board

Suzanne Lalonde, Professor, Faculty of Law, Université de Montréal

Taqquq Productions (Neil Christopher)

University of the Arctic (Peter Sköld)

Winnipeg Art Gallery

Yukon Chamber of Mines

Yukon College

Yukon First Nation Chamber of Commerce (Albert Drapeau)

Yukon Government

APPENDIX D: REPORTS PERTAINING TO THE ARCTIC

The following is a list of parliamentary standing committee reports for the past ten years on Arctic and northern affairs, or have sections or recommendations devoted to northern issues.

Senate Standing Committee Reports

DATE	SENATE COMMITTEE	REPORT TITLE
November 2018	Standing Senate Committee on Fisheries and Oceans	When every minute counts: Maritime Search and Rescue
June 2017	Standing Senate Committee on Banking, Trade and Commerce	National Corridor: Enhancing and Facilitating Commerce and Internal Trade
March 2017	Standing Senate Committee on Aboriginal Peoples	We Can Do Better: Housing in Inuit Nunangat
March 2017	Standing Senate Committee on Energy, the Environment and Natural Resources	Positioning Canada's Electricity Sector in a Carbon Constrained Future
June 2015	Standing Senate Committee on Energy, the Environment and Natural Resources	Powering Canada's Territories
June 2015	Standing Senate Committee on Aboriginal Peoples	On-Reserve Housing and Infrastructure: Recommendations for Change
February 2015	Standing Senate Committee on Aboriginal Peoples	Housing on First Nations Reserves: Challenges and Successes, Interim Report
August 2013	Standing Senate Committee on Energy, the Environment and Natural Resources	Moving Energy Safely: A Study of the Safe Transport of Hydrocarbons by Pipelines, Tankers and Railcars in Canada
March 2011	Standing Senate Committee on National Security and Defence	Sovereignty & Security in Canada's Arctic
June 2011	Standing Senate Committee on Social Affairs, Science and Technology	Opening the Door: Reducing Barriers to Post-Secondary Education in Canada
May 2010	Standing Senate Committee on Fisheries and Oceans	The Management of Fisheries and Oceans in Canada's Western Arctic

Northern Lights: A Wake-Up Call for the Future of Canada

DATE	SENATE COMMITTEE	REPORT TITLE
December 2009	Standing Senate Committee on Fisheries and Oceans	Controlling Canada's Arctic Waters: Role of the Canadian Coast Guard
June 2009	Standing Senate Committee on Fisheries and Oceans	Nunavut Marine Fisheries: Quotas and Harbours
April 2009	Standing Senate Committee on Fisheries and Oceans	Rising to the Arctic Challenge: Report on the Canadian Coast Guard
May 2009	Standing Senate Committee on Energy, the Environment and Natural Resources	With Respect, Canada's North
June 2008	Standing Senate Committee on Fisheries and Oceans	The Coast Guard in Canada's Arctic: Interim Report
June 2008	Standing Senate Committee on Agriculture and Forestry	Beyond Freefall: Halting Rural Poverty
April 2008	Senate Subcommittee on Population Health of the Standing Senate Committee on Social Affairs, Science and Technology	Population Health Policy: Federal, Provincial and Territorial Perspectives
March 2007	Standing Senate Committee on Aboriginal Peoples	Sharing Canada's Prosperity – A Hand Up, Not a Handout

House of Commons Standing Committee Reports

DATE	HOUSE OF COMMONS COMMITTEE	REPORT TITLE
April 2019	Standing Committee on Indigenous and Northern Affairs	A Path to Growth: Investing in the North
April 2019	Standing Committee on Foreign Affairs	Nation-Building at Home, Vigilance Beyond: Preparing for the Coming Decades in the Arctic
October 2018	Standing Committee on Canadian Heritage	A Vision for Cultural Hubs and Districts in Canada
June 2018	Standing Committee on Environment and Sustainable Development	Better Buildings for a Low-Carbon Future – Section 8. An Energy-Efficient Building Strategy for Canada's North

Northern Lights: A Wake-Up Call for the Future of Canada

DATE	HOUSE OF COMMONS COMMITTEE	REPORT TITLE
June 2018	Standing Committee on Fisheries and Oceans	Healthy Oceans, Vibrant Coastal Communities: Strengthening the Oceans Act's Marine Protected Areas Establishment Process
May 2018	Standing Committee on Public Accounts	Report 4, Oral Health Programs for First Nations and Inuit – Health Canada, of the Fall 2017 Reports of the Auditor General of Canada
April 2018	Standing Committee on Industry, Science and Technology	Broadband Connectivity in Rural Canada: Overcoming the Digital Divide
March 2017	Standing Committee on Fisheries and Oceans	Newfoundland and Labrador's Northern Cod Fishery: Charting a New Sustainable Future
March 2017	Standing Committee on Environment and Sustainable Development	Taking Action Today: Establishing Protected Areas for Canada's Future
March 2017	Standing Committee on Natural Resources	The Future of Canada's Mining Sector: Sustainable Growth Beyond the Global Downturn
June 2017	Standing Committee on Indigenous and Northern Affairs	Breaking Point: The Suicide Crisis in Indigenous Communities
May 2017	Standing Committee on Human Resources, Skills and Social Development and the Status of Persons with Disabilities	Breaking the Cycle: A Study on Poverty Reduction
December 2017	Standing Committee on Finance	Driving Inclusive Growth: Spurring Productivity and Competitiveness in Canada
December 2017	Standing Committee on Public Accounts	Report 6, Civil Aviation Infrastructure in the North, of the Spring 2017 Reports of the Auditor General of Canada
December 2017	Standing Committee on Agriculture and Agri-Food	A Food Policy for Canada
December 2016	Standing Committee on Finance	Creating the Conditions for Economic Growth: Tools for People, Businesses and Communities

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DATE	HOUSE OF COMMONS COMMITTEE	REPORT TITLE
May 2016	Standing Committee on Indigenous and Northern Affairs	Declaration of Health Emergency by First Nations Communities in Northern Ontario
May 2015	Standing Committee on Public Accounts	Chapter 6, Nutrition North Canada – Aboriginal Affairs and Northern Development Canada, of the Fall 2014 Report of the Auditor General of Canada
June 2015	Standing Committee on Environment and Sustainable Development	Licensed Hunting and Trapping in Canada
June 2015	Standing Committee on Transport, Infrastructure and Communities	Updating Infrastructure in Canada: An Examination of Needs and Investments
February 2015	Standing Committee on Public Accounts	Chapter 6, Transfer Payments Programs – Canadian Northern Economic Development Agency, of the Spring 2014 Report of the Auditor General of Canada
May 2013	Standing Committee on Foreign Affairs and International Development	Canada and the Arctic Council: An Agenda for Regional Leadership
November 2012	Standing Committee on Natural Resources	Resource Development in Northern Canada
June 2012	Standing Committee on Human Resources, Skills and Social Development and the Status of Persons with Disabilities	Skills Development in Remote Rural Communities in an Era of Fiscal Restraint
March 2011	Standing Committee on Aboriginal Affairs and Northern Development	From Food Mail to Nutrition North Canada
December 2010	Standing Committee on Aboriginal Affairs and Northern Development	Northerners' Perspectives for Prosperity

Northern Lights: A Wake-Up Call for the Future of Canada

DATE	HOUSE OF COMMONS COMMITTEE	REPORT TITLE
November 2010	Standing Committee on Human Resources, Skills and Social Development and the Status of Persons with Disabilities	Federal Poverty Reduction Plan: Working in Partnership Towards Reducing Poverty in Canada
June 2010	Standing Committee on Health	The Way Forward: Addressing the Elevated Rates of Tuberculosis Infection in On Reserve First Nations and Inuit Communities
June 2010	Standing Committee on National Defence	Canada's Arctic Sovereignty
February 2011	Standing Committee on Public Accounts	Chapter 4, "Sustaining Development in the Northwest Territories," of the Spring 2010 Report of the Auditor General of Canada
December 2009	Standing Committee on Finance	A Prosperous and Sustainable Future for Canada: Needed Federal Actions
June 2009	Standing Committee on Natural Resources	Combining our Energies: Integrated Energy Systems for Canadian Communities
June 2008	Standing Committee on Public Accounts	Chapter 3, Inuvialuit Final Agreement of the October 2007 Report of the Auditor General of Canada
April 2008	Standing Committee on Human Resources, Social Development and the Status of Persons with Disabilities	Employability in Canada: Preparing for the Future
April 2007	Standing Committee on Fisheries and Oceans	Ensuring a Sustainable and Humane Seal Harvest
March 2007	Standing Committee on Health	Healthy Weights for Healthy Kids
March 2007	Standing Committee on Aboriginal Affairs and Northern Development	Aboriginal Housing in Canada



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