CANADA AND THE ARCTIC COUNCIL: AN AGENDA FOR REGIONAL LEADERSHIP

Report of the Standing Committee on Foreign Affairs and International Development

Dean Allison
Chair

MAY 2013

41st PARLIAMENT, 1st SESSION
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THE STANDING COMMITTEE ON FOREIGN AFFAIRS AND INTERNATIONAL DEVELOPMENT

has the honour to present its

NINTH REPORT

Pursuant to its mandate under Standing Order 108(2) the Committee has studied Canada's Arctic Foreign Policy and has agreed to report the following:
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INTRODUCTION

Canada has been a leader in multilateral cooperation in the Arctic region for over two decades. Soon after the end of the cold war, it argued that there was a need for a council that would unite the eight Arctic states and a number of indigenous peoples’ organizations to deal with common challenges, notably those related to the protection of the fragile Arctic environment. The Arctic Council was established from these discussions in 1996, and Canada served as its first chair. Following a full rotation among all member states, Canada will chair the council for the second time for a two-year term beginning in May 2013. After consultations in the Canadian north in the fall of 2012, the Government of Canada announced the broad theme — “development for the people of the north” — and sub-themes that it will pursue during its chairmanship.

In anticipation of this important opportunity for Canadian regional leadership, the Committee conducted a study of Canada’s Arctic foreign policy, receiving testimony from over 40 witnesses, including federal departmental and territorial officials, academics, scientists and businesspeople. The present report summarizes the key findings from the Committee’s meetings in order to provide parliamentary input to Canada’s Arctic Council agenda and to identify what the Committee believes are the most pressing challenges facing Arctic states.

One of the central messages to emerge from the Committee’s hearings is that the Arctic is opening to its nations and the world. It is equally clear that these developments are occurring at an accelerating pace, which raises significant diplomatic, regulatory, and practical questions for Canada and its Arctic Council partners. In other words, the management issues in the Arctic are both substantial and immediate. Witnesses emphasized the degree to which climate change, globalization and other processes are together resulting in opportunities and challenges in the Arctic that are qualitatively different from those that existed in 1996 when the Arctic Council was established.

The Committee also heard that, if managed effectively, the global processes that are opening the region can contribute to increased prosperity and economic development for the people of the Arctic, including northern Canadians. The fact that the Arctic Council has a track record of producing studies that benefit from a combination of state resources and the knowledge of indigenous peoples’ organizations ensures that solid science and other technical work will be available to help guide future policies.

The Arctic region is perhaps unique in the extent to which it blurs the lines between domestic and foreign policy. This report therefore outlines the main messages from the Committee’s testimony regarding issues that are relevant to both. The report concludes with the Committee’s recommendations for the steps that it believes Canada should take to enhance and further its own Arctic policies, as well as the priority initiatives the
Committee believes Canada should pursue through regional and broader multilateral cooperation.

THE ARCTIC AS A FOREIGN POLICY PRIORITY

The Arctic is increasingly being defined by three phenomena: globalization, global climate change, and global demand for natural resources. These three global trends have profound implications for the region’s environment and the people who reside there. The Arctic is also characterized by national pressures and opportunities. It is therefore increasingly important to both domestic and foreign policy. The fact that Canada will assume the rotating chair of the Arctic Council in May 2013, the regional organization mandated to address Arctic issues, has brought these issues into sharpened focus.

The pace with which the Arctic is growing in the international consciousness is evident in the proliferation of media coverage, conferences, and publications in recent years. All of this debate has occurred alongside an increasing number of visits, announcements, strategies and undertakings by governments in their Arctic territories and in relation to Arctic issues.

It is important at the outset of this report to understand why such a flurry of interest has taken hold. Put simply, the national and international stakes in the Arctic are high. It is a region rich in coveted natural resources, most of which have yet to be fully developed. It, along with the world’s other polar region in Antarctica, is on the front line of global climate change. It is a region where the implementation of the international legal framework governing the oceans is being carefully tested. It is the region that brings together the national and foreign policy interests of the world’s key late-twentieth century adversaries — the United States and Russia — with the aspirations and evolving policies of some of the world’s new twenty-first century powers, such as China and the European Union. It is a region that as a transit point represents potential savings in time and distance for companies that are increasingly in search of advantages in a competitive and integrated global economy. And, most importantly, all of these activities are occurring in a region that is notable for its unique geography and demographics. For example, approximately 500,000 of the 4 million people who live in the Arctic region are indigenous peoples, the proportion of which is much higher in the Arctic territory of Greenland (88.1%), Canada (50.8%) and Alaska in the United States (15.6%). Northernners are the stewards of what is at once a vast, forbidding, fragile, and beautiful territory and homeland.

Jillian Stirk, Assistant Deputy Minister in Canada’s Department of Foreign Affairs and International Trade (DFAIT), framed the urgency and relevance of developments in the Arctic for Canada, noting that “the north is undergoing rapid change, and this has sparked unprecedented international interest.” She added that change of this kind

1 Arctic Council, “Permanent Participants.”
“presents both opportunities and challenges.”³ Terry Hayden, Acting Deputy Minister for Economic Development in the Yukon Government, also suggested that Canada’s north is entering a critical phase. He told the Committee: “We are experiencing massive social, political, environmental, and economic change, and with that change comes the opportunity for benefits that reach beyond our northern borders.”⁴ In his appearance, Bernard Funston, Chair of the Canadian Polar Commission, pointed out that many of the changes and forces that are affecting the Arctic are global in nature. He said:

We have seven billion people on the planet at the moment, and it's not just a case that the things that will change the Arctic occur in the Arctic. Most of them, in fact, occur outside of the Arctic. Whether that's pressure for transportation routes, or minerals, or transboundary pollutants, or climate change itself, they're caused by non-Arctic drivers.⁵

A traditional understanding of the foreign policy dimensions of the Arctic would make the case that there are five states with national borders in the Arctic Ocean; furthermore, relations exist between these states, who must manage the governance of waters, land, natural resources, and vessels in adjacent territory, all of which makes the Arctic the domain of foreign policy. While these facts remain the bedrock of international relations in the Arctic, it is the additional recognition of the truly global nature of the forces that are driving many of the most critical dynamics in the region — whether it is increased maritime traffic or resource exploration — that elevates the Arctic to a foreign policy priority for Canada.

In response to this changing landscape, the Government of Canada released a Statement on Canada’s Arctic Foreign Policy in 2010, which expanded on the international dimensions of the government’s 2009 integrated Northern Strategy. The latter has four pillars:

- Exercising sovereignty;
- Promoting economic and social development;
- Protecting our environmental heritage; and,
- Improving and devolving Northern governance.

The linkages between the two documents, which are presented by the government as a policy package, reflect the connection between the national and international dimensions of the Arctic. Canada’s foreign policy statement contains a broad vision of the Arctic as “a stable, rules-based region with clearly defined boundaries, dynamic economic growth and

³ House of Commons, Standing Committee on Foreign Affairs and International Development [FAAE], Evidence, 1st session, 41st Parliament, 20 November 2012.
⁴ FAAE, Evidence, 26 February 2013.
⁵ FAAE, Evidence, 6 December 2012.
trade, vibrant Northern communities, and healthy and productive ecosystems.”

The document also acknowledges that “The geopolitical significance of the region and the implications for Canada have never been greater.”


Canada has long been a leading Arctic state, both in terms of its domestic policies and with respect to multilateral cooperation in the region. A key element of Canada’s multilateral approach to the Arctic for almost two decades has been the Arctic Council. This unique body combines the resources and knowledge of the eight Arctic states — Canada, Denmark (Greenland), Finland, Iceland, Norway, the Russian Federation, Sweden and the United States — with those of six international indigenous peoples’ organizations for the benefit of cooperation on a common regional agenda. While that cooperation initially focused largely on the protection of the environment, it has since expanded to include issues such as sustainable development and emergency response.

Canada served as the first chair of the Arctic Council from 1996–1998, and will do so again from 2013–2015. Canada’s Senior Arctic Official, Sigrid Anna Johnson of DFAIT, told the Committee:

…you will be aware that the Prime Minister recently appointed the Honourable Leona Aglukkaq as minister for the Arctic Council and Canada’s chair of the Arctic Council. …The appointment by the Prime Minister of a dedicated minister for the Arctic Council and of someone with such a deep understanding of Canada’s north and its peoples reflects the importance the Government of Canada attaches to the north and to the work of the Arctic Council.

While the approach the Canadian government takes to the Arctic must inevitably evolve with changes in the opportunities and challenges that need to be addressed in that region, the unique nature and flexibility of the Arctic Council means that it remains as relevant to Canadian priorities today as it was when it was created.

The Council — Then and Now

The possibility of real international cooperation in the Arctic began with the end of the cold war, when Soviet President Mikhail Gorbachev called in a 1987 speech for a zone of peace in the region. Within several years, a Finnish-led initiative to unite the Arctic states and three Arctic indigenous peoples’ organizations to address a range of environmental issues led to an Arctic Environmental Protection Strategy (AEPS). In 1993, it was agreed to expand this strategy to include sustainable development, with Canada

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7 Ibid.

taking the lead in developing terms of reference and a work plan. Canada had, however, been arguing for several years about the need for the creation of a regional body with a broader scope and mandate. It was for this reason that Sara French, Program Director of the Munk-Gordon Arctic Security Program told the Committee:

The genesis of the Arctic Council is largely found here in Canada. It was Canadians who built upon the Finnish initiative of the Arctic environmental protection strategy to push for a more permanent intergovernmental forum to facilitate cooperation among the eight Arctic states previously separated by the cold war boundaries.9

Agreement was finally reached to establish the Arctic Council in 1996. In the Declaration on the Establishment of the Arctic Council (the “Ottawa Declaration”), ministers stated that:

1. The Arctic Council is established as a high level forum to:

   a) provide a means for promoting cooperation, coordination and interaction among the Arctic states, with the involvement of Arctic indigenous communities and other Arctic inhabitants on common Arctic issues, in particular issues of sustainable development and environmental protection in the Arctic.

   b) oversee and coordinate the programs established under the AEPS...

   c) adopt terms of reference for, and oversee and coordinate a sustainable development program.

   d) disseminate information, encourage education and promote interest in Arctic-related issues.

Among other important elements, a footnote in the declaration stated that, “The Arctic Council should not deal with matters related to military security.”10

The Arctic Council largely retained the structure of the AEPS, through the establishment of a number of working groups and the inclusion of Arctic indigenous peoples’ organizations as “permanent participants.” Funding for the council and the work of its project-driven working groups was to be provided on a voluntary basis by the eight member states. Coordination of work was to be overseen by regular meetings of Senior Arctic Officials of the states, supported by a secretariat that rotated with the chair of the council every two years.

9 FAAE, Evidence, 29 November 2012.
10 See: Declaration on the Establishment of the Arctic Council (Ottawa Declaration), available at Foreign Affairs and International Trade Canada.
The six working groups of the Arctic Council, which are composed of researchers as well as governmental experts and officials, are the following:11

- Arctic Contaminants Action Program;
- Arctic Monitoring and Assessment Programme;
- Conservation of Arctic Flora and Fauna;
- Emergency Prevention, Preparedness and Response;
- Protection of the Arctic Marine Environment; and
- Sustainable Development Working Group.

In addition to these groups, task forces are also created by ministers to work on specific initiatives. In the years since the establishment of the Arctic Council, its working groups have produced ground-breaking research, such as the Arctic Climate Impact Assessment (2004), the Arctic Human Development Report (2004), and the Arctic Marine Shipping Assessment (2009).

While work related to scientific and other technical research has continued, Arctic states reached a new level of cooperation in 2011. In that year, they completed the Aeronautical and Maritime Search and Rescue (SAR) Agreement, the first legally binding agreement negotiated by the states under the auspices of the Arctic Council. Ms. Johnson of DFAIT argued that this development marked the evolution of the Arctic Council from “very much a scientific body” into a policy-making one. On the broader implications of these developments, she added that, “With the increasing attention on the circumpolar region, it’s clear that this will be a role the council will rise to, to ensure that there is appropriate governance in the region.”12

Organizational Issues

In terms of the structure, working methods and focus of the Arctic Council, John Crump, Senior Advisor on Climate Change at the GRID-Arendal Polar Center, made the general observation to the Committee that “the world has changed much faster than the council.”13 Adding to this sense of a changing regional landscape and new opportunities for regional leadership, Dr. David Hik, professor, Department of Biological Sciences at the University of Alberta, commented that since all the Arctic states have now had a chance to chair the Arctic Council, “This is a chance for the next cycle of

12 FAAE, Evidence, 20 November 2012.
13 FAAE, Evidence, 19 March 2013.
chairmanships, with Canada being the first, to define some of these procedural issues and questions about the types of priorities we’re going to place on questions that are within the purview of the Arctic Council.”\textsuperscript{14}

Recent years have seen a significant increase in the volume of work undertaken by the Council’s working groups. Many projects and initiatives that are already underway — such as the updated \textit{Human Development Report} — will be completed during Canada’s chairmanship. Despite this ever-increasing workload, however, beyond the establishment of a permanent secretariat in January 2013 there have been few changes to the internal operation of the Arctic Council itself since 1996. Inuit Circumpolar Council (Canada) President Duane Smith conveyed to the Committee his impression of “a body in its teenage years,” with respect to “how it conducts its business and activities.” Mr. Smith noted that as the Council “gets more grounded, and it has a permanent secretariat now, it’s going to become much more active.”\textsuperscript{15}

Among other present challenges, Arctic Council states will in the coming months and years have to decide on the question of how to improve their support for the work of the Council’s permanent participants, as well as on the issue of the admission of permanent observers to the Council’s proceedings. More generally, Ms. Johnson told the Committee that during its chairmanship, Canada “will build on the council's continuing efforts to improve coordination across all of the council's working groups and task forces, and to improve tracking and reporting to effectively implement our work.”\textsuperscript{16}

Over the past six years, Norway, Denmark and Sweden have pursued a common agenda as chairs of the Arctic Council in order to enhance the coherency of the Council’s work and to allow for a longer time horizon to achieve their common goals. A number of witnesses likewise suggested that Canada should coordinate closely with the United States, which will succeed Canada as Arctic Council chair in 2015. On the question of coordinating chairmanships, Ms. Johnson stated that the Council is moving toward a “troika” system, in her words a “very effective” one in which the current chair cooperates closely with both the past and future ones. Canada has cooperated closely with Sweden, and she said that Canada “will certainly be working very closely with the Americans.”\textsuperscript{17}

The fact that Arctic states succeeded in negotiating a legally binding instrument under the auspices of the Council on search and rescue, and have now almost completed another one on marine oil pollution preparedness and response, has led some to argue that they should focus on the completion of such instruments. Michael Byers, professor and Canada Research Chair, Department of Political Science at the University of British Columbia, told the Committee that, in the context of climate change:

\begin{itemize}
\item[14] Ibid.
\item[17] Ibid.
\end{itemize}
We shouldn’t think that these things can be done informally. We all know that when it comes to the most important issues in the world, countries negotiate binding treaties because they can be enforced. These issues are of such importance that we need to be talking about law-making.\textsuperscript{18}

Professor Whitney Lackenbauer, Associate Professor and Chair of the History Department at St. Jerome’s University, disagreed with the idea that legally binding instruments should be the goal and the marker of the Arctic Council’s success. He argued that “The desired goal is scientifically informed policy, most of which should be generated at the state level as per the original intent of the council. What this does is it allows policies to accommodate regional diversity, because there are different realities depending on where one lives or operates in the circumpolar world.”\textsuperscript{19}

Notwithstanding the Arctic Council’s many successes in the years since its establishment, maximizing its effectiveness requires recognizing what it can and cannot do. While it will remain the leading forum for dealing with truly regional issues, it cannot be expected to address effectively all issues — particularly global ones — that impact the Arctic, although it may be able to address their regional implications. In managing its foreign policy, the Government of Canada will therefore have to decide how best to balance its bilateral, regional and global efforts on various issues relevant to the circumpolar region.

\textbf{Setting an Agenda}

The range of challenges that are facing the Arctic, and which could be pursued within the Council, is significant. Many of these were mentioned regularly during the Committee’s hearings. They include maritime safety and ship standards, completion of an instrument on oil spill preparedness and response, implementation of the 2011 search and rescue agreement, and the possibility of fisheries management in the central Arctic Ocean. Following a series of consultations in the Canadian north and discussions elsewhere, the Government of Canada announced in the fall of 2012 that Canada’s overarching theme for its chairmanship of the Arctic Council would be “development for the people of the north.” Three sub-themes will address: responsible Arctic resource development, responsible and safe Arctic shipping, and sustainable circumpolar communities.\textsuperscript{20} Issues brought forward in the Arctic Council often emphasize the links between domestic and foreign policy. Cooperation to address them in that multilateral setting allows for the sharing of knowledge and the identification of common approaches and best practices. For example, while building sustainable communities is an important domestic priority for the Government of

\begin{flushleft}
\textsuperscript{18} FAAE, \textit{Evidence}, 27 November 2012.
\textsuperscript{19} FAAE, \textit{Evidence}, 22 November 2012.
\textsuperscript{20} FAAE, \textit{Evidence}, 20 November 2012.
\end{flushleft}
Canada, Ms. Johnson noted that the same challenges are faced by states across the Arctic.\textsuperscript{21}

The fact that the Arctic Council works by consensus means that its priorities will be determined collectively. Mr. Funston, who was intimately involved with the Council from its establishment until 2010, told the Committee:

... the priorities... are set in the Kiruna ministerial meeting in May 2013, and that will be done in collaboration with our Arctic state partners. The key here is the consensus rule within the Arctic Council, so Canada cannot unilaterally push an agenda, say, for sustainable development in communities in Canada’s Arctic.\textsuperscript{22}

In his testimony, Duane Smith noted that, as of March 2013, the Government of Canada was “still consulting and working closely, not only with us but with others, in revising and trying to reflect everybody’s views and perspectives, all while trying to also be realistic in the agenda and the mandate and the timeframe to ensure that we can achieve some objectives within that.”\textsuperscript{23} The opportunities and challenges facing Canada and the Arctic Council on the eve of Canada assuming its chair were summarized by Andy Bevan, Acting Deputy Minister of Aboriginal Affairs and Intergovernmental Relations in the Government of the Northwest Territories. He said:

Canada’s upcoming chairpersonship of the Arctic Council presents a unique and exciting opportunity to advance its Arctic foreign policy. This is an important time for northerners, as economic growth and climate change are playing significant roles in the future of the Arctic. It is an opportunity to engage on northern priorities on both the national and international stage and to showcase the immense potential of Canada’s north.\textsuperscript{24}

In the course of the Committee’s meetings, a host of issues were raised by witnesses. These relate both to long-standing challenges and debates concerning the Arctic and to emerging ones that will be critical for states to address cooperatively during Canada’s chairmanship and beyond.

As noted, the Government of Canada has announced the overarching theme and sub-themes that will frame its chairmanship of the Arctic Council from 2013–2015. The scope and complexity of these themes and of the broader issues at stake in the region mean that additional consideration from a parliamentary perspective can only contribute to the objective of a successful chairmanship. In the sections that follow, the Committee will highlight the key findings and messages from the testimony it received in an effort to: clarify certain ideas about the Arctic; establish the challenges and opportunities facing that region; and lay out what the Committee believes are the most

\textsuperscript{21} Ibid.
\textsuperscript{22} FAAE, Evidence, 6 December 2012.
\textsuperscript{23} FAAE, Evidence, 5 March 2013.
\textsuperscript{24} FAAE, Evidence, 26 February 2013.
pressing issues that should be considered by Canada and the Arctic Council in the coming months and years.

THE COMMITTEE’S KEY FINDINGS

International Relations in the Arctic: Cooperation or Conflict?

The first section of this report outlined the broad foreign policy context of the Arctic, making the case that the stakes for Arctic nations like Canada in the circumpolar region are high. However, the argument that there are significant opportunities and issues that need to be addressed in the Arctic does not mean that it is or will be an arena of conflict between states. Certain media reports and punditry on the Arctic in the last few years have created the impression of a “race for resources” in the Arctic, implying that the region is akin to a wild west-type environment where “claims” are either being staked out or are in flux, and where nations are engaged in stand-offs against one another in an effort to protect and assert their interests. Testimony given to the Committee suggests that such assessments of the Arctic are either misleading or overblown. Witnesses explained that there is no legal vacuum in the Arctic, and that, in fact, a robust legal framework governs Canada’s Arctic waters, which include the Northwest Passage, and the seabed beneath those waters, as well as the waters of the Arctic Ocean. Arctic states are pursuing their interests in accordance with that established legal framework.

The International Legal Framework

The Committee heard from a number of experts on the international legal framework governing the Arctic, including Mr. Byers, Donald McRae, professor at the University of Ottawa, Alan Kessel, Legal Adviser to DFAIT, Ted McDorman, professor, faculty of law at the University of Victoria, who is currently seconded to the legal department at DFAIT, and David VanderZwaag, professor of law and Canada Research Chair in Ocean Law and Governance at Dalhousie University. These witnesses made fairly similar presentations with regard to the key legal principles that apply to Canadian Arctic waters and the Arctic Ocean.

One of the key points that can be taken from all of these presentations is that Arctic waters, and the natural resources that lie within and underneath them, are no different than waters anywhere else on earth. They are governed by the United Nations Convention on the Law of the Sea (UNCLOS), an international treaty that came into force in 1982. Some 165 states had ratified UNCLOS as of January 2013, including Canada, which ratified the treaty in 2003.25 UNCLOS is a comprehensive international treaty. It defines different types of waters and state rights in those waters, and specifies the domestic laws

25 United Nations, Division for Ocean Affairs and the Law of the Sea. Chronological lists of ratifications of, accessions and succession to the Convention and the related Agreements as at 23 January 2013, updated January 23, 2013. The United States is the only Arctic Council member state that has not ratified the UNCLOS.
and regulations that can govern each type, while also providing rules related to navigation, pollution control, and resource development. As depicted in Figure 1, key definitions related to the maritime zones of coastal states in the Arctic include states' "territorial sea," their "exclusive economic zones," their "continental shelves," and, beyond these, the "high seas."

**Figure 1 — Canada’s Maritime Zones**

Source: Fisheries and Oceans Canada, *Canada’s Ocean Estate – A Description of Canada’s Maritime Zones*.

On the first definition, waters up to 12 nautical miles from a state’s coastline constitute its territorial sea. All vessels enjoy “innocent passage” through the territorial sea of coastal states. Innocent passage is passage that “is not prejudicial to the peace, good order or security of the coastal State” (e.g. foreign ships cannot exercise weapons of any kind). With respect to submarines, in the territorial sea of a coastal state, they "are required to navigate on the surface and to show their flag." States may adopt laws and regulations relating to innocent passage through their territorial sea.

In the Arctic Ocean, as in all other oceans on earth, each coastal state is entitled to an exclusive economic zone (EEZ) that extends from 12 to 200 nautical miles from their

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27 Ibid., Article 20.
Coastline, adjacent to and beyond the state’s territorial sea. Within its EEZ, a coastal state has

sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil, and with regard to other activities for the economic exploitation and exploration of the zone...[.]^{28}

Coastal states also have jurisdiction with regard to the protection and preservation of the marine environment in their EEZs. There is a specific and important Article (234) in UNCLOS pertaining to waters in ice-covered areas, which enables states to enforce "non-discriminatory laws and regulations for the prevention, reduction and control of marine pollution from vessels in ice-covered areas [...]." Canada exercises such jurisdiction in its Arctic EEZ in accordance with its Arctic Waters Pollution Prevention Act.

Under UNCLOS, each coastal state is entitled to define its continental shelf, which comprises the seabed and subsoil of the areas "that extend beyond its territorial sea throughout the natural prolongation of its land territory to the outer edge of the continental margin," up to a 200 nautical mile limit.^{29} Each coastal state has certain sovereign rights over its continental shelf "for the purpose of exploring it and exploiting its natural resources."^{30} These resources "consist of the mineral and other non-living resources of the seabed and subsoil together with living organisms belonging to sedentary species..." (In general terms then, the provisions in UNCLOS related to the exploitation of natural resources contained in continental shelves apply to the physical land under the sea, but not the waters above). These rights are "exclusive in the sense that if the coastal State does not explore the continental shelf or exploit its natural resources, no one may undertake these activities without the express consent of the coastal State."^{31} Moreover, these rights "do not depend on occupation, effective or notional, or on any express proclamation."^{32} Coastal states also "have the exclusive right to authorize and regulate drilling on the continental shelf for all purposes."^{33} Professor McRae explained the legal significance of these key provisions of UNCLOS in respect to the delineation and exploitation of continental shelves as follows:

These are rights that belong to the coastal state automatically and don't have to be claimed by the state. That's why the Russian flag-dropping incident of a few years ago, while amusing and scientifically interesting, was of no legal significance whatsoever, and the Russians themselves recognized that.

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28 Ibid., Article 56 (1).
29 Ibid., Article 76.
30 Ibid., Article 77.
31 Ibid.
32 Ibid.
33 Ibid., Article 81.
Just as the states within the region cannot enhance their positions by making claims, rights over the continental shelf within the Arctic cannot be claimed by states from outside the region. The continental shelf, in legal terms, is the prolongation of the land territory. If you don’t have any land in the area, then you cannot have a continental shelf.\(^{34}\)

Therefore, the popular narrative that there is a race underway between many states to stake maritime claims in the Arctic is misleading.

Under certain circumstances, states can delineate a continental shelf beyond 200 nautical miles if their shelf extends naturally beyond that point. The extension and outer limit of a state’s continental shelf must be based on a complex formula defined in UNCLOS. As the Department of Fisheries and Oceans explains, “Determination depends on the thickness of sedimentary rocks, which underlines the idea that the shelf is the natural extension of a state’s land territory.”\(^{35}\) In order to establish the extent of its continental shelf beyond 200 nautical miles to a maximum, under most circumstances, of 350 nautical miles, each “coastal state must submit scientific, technical and legal details...to the Commission on the limits of the Continental Shelf (the Commission).”\(^{36}\)

States have 10 years following the date of UNCLOS ratification to submit claims, which gives Canada until the end of 2013. Mr. Kessel pointed out that Canada’s technical and scientific work is being done in cooperation with partners such as the United States and Denmark. He said that, "By the time we’re finished, the land mass equivalent will be that of the three prairie provinces in terms of the extension, with, as you can imagine, extraordinary hydrocarbon potential and the like.”\(^{37}\) Even so, Professor McRae noted that there is a backlog in the Commission’s work, and that "it may be 20 years before the commission will actually express its views on Canada's submission.”\(^{38}\)

Mr. Kessel told the Committee that Canada will eventually define the outer limits of its continental shelf based on these recommendations. With respect to the possibility of state claims overlapping, he noted that “the extent and location of these overlaps is not yet known.” Nevertheless, any such overlaps “will be resolved bilaterally in accordance with

\(^{34}\) FAAE, Evidence, 27 November 2012.

\(^{35}\) Fisheries and Oceans Canada, Canada's Ocean Estate: A Description of Canada's Maritime Zones.

\(^{36}\) Ibid.

\(^{37}\) FAAE, Evidence, 20 November 2012. Under Article 82 of UNCLOS, coastal states are required to make payments with respect to the exploitation of the non-living resources of their continental shelf beyond 200 nautical miles. The payments must be made annually “with respect to all production at a site after the first five years of production at that site. For the sixth year, the rate of payment or contribution shall be 1 per cent of the value or volume of production at the site. The rate shall increase by 1 per cent for each subsequent year until the twelfth year and shall remain at 7 per cent thereafter. […]” The payments are made through the International Seabed Authority, which distributes them to States Parties to UNCLOS, “on the basis of equitable sharing criteria, taking into account the interests and needs of developing States, particularly the least developed and the land-locked among them.”

\(^{38}\) FAAE, Evidence, 27 November 2012.
international law.” Professor McRae explained that the rules governing such disputes in maritime boundaries "are not very clear." But, "they have been developed in state practice and in the decisions of international tribunals.”

With respect to the final pertinent definition under UNCLOS, which governs the wider Arctic Ocean, all seas beyond the outer limit of the territorial seas and EEZs of coastal states constitute the high seas. They are open to all states, which have freedom of navigation, overflight, fishing (subject to certain conditions) and scientific research. Providing an overall picture of this mosaic of definitions, Mr. McDorman explained to the Committee that, "As with other oceans, the Arctic Ocean is simultaneously an area of exclusive national jurisdiction and an area of certain international rights exercisable by and available to all states." James Manicom, Research Fellow at the Centre for International Governance Innovation, explained, for example, that the interest of East Asian states in the Arctic relates to the Arctic Ocean, or the high seas, not waters under national jurisdiction.

The existence of an established legal framework in the Arctic, based on UNCLOS, and the desire of Arctic states to pursue cooperation in this field was underlined by the 2008 Ilulissat Declaration of the five Arctic Ocean states — Canada, the United States, Russia, Norway, and Denmark (Greenland). The foreign ministers recalled:

...that an extensive international legal framework applies to the Arctic....

Notably, the law of the sea provides for important rights and obligations concerning the delineation of the outer limits of the continental shelf, the protection of the marine environment, including ice-covered areas, freedom of navigation, marine scientific research, and other uses of the sea. We remain committed to this legal framework and to the orderly settlement of any possible overlapping claims.

The United States has not ratified UNCLOS; however, the United States does apply customary international law as regards the law of the sea. Professor McRae said that "The fact that the U.S. is not a party of the treaty is for the most part of no real significance.” The Committee believes that UNCLOS is of fundamental importance as an international legal framework. As Andrea Charron, Assistant Professor at the University of Manitoba, told the Committee: “UNCLOS is the most appropriate body of law to deal with oceans and seas.” She also reinforced the point that, "It is well respected, and the U.S., even though it hasn't ratified it, treats it as customary law.” The Committee was therefore

40 FAAE, Evidence, 27 November 2012.
42 FAAE, Evidence, 26 February 2013.
44 FAAE, Evidence, 27 November 2012.
45 FAAE, Evidence, 22 November 2012.
encouraged by the message received during its hearings that the Government of Canada is firmly committed to UNCLOS as the common basis for proceeding.

### Canada's Arctic Sovereignty

With UNCLOS as a reference point, witnesses also put forward many common points regarding the legal foundation of Canada’s Arctic sovereignty. Mr. Kessel made the overarching observation that "Canada's sovereignty over its lands and waters in the Arctic is long standing and well established."  

With respect to Canada's land territory in the Arctic, witnesses agreed that no one disputes Canada's legal position. Mr. McDorman emphasized that, with the exception of the tiny Hans Island, Canada's Arctic territory "is unquestionably under Canadian sovereignty and not subject to any challenge by any other state." The situation regarding the waters within Canada's Arctic archipelago is somewhat more complicated. Mr. Kessel told the Committee:

> No one disputes that the various waterways known as the Northwest Passage are Canadian waters. The issue is not about sovereignty over the waters or the islands; it's about the legal status of these waters and, consequently, the extent of control Canada can exercise over foreign navigation.

The United States maintains that the Northwest Passage constitutes an international strait for navigation. However, Mr. Kessel stated:

> Canada's position is that these waters are internal waters by virtue of historic title and not an international strait. For greater clarity, Canada drew straight baselines around its Arctic islands in 1986. As a result, Canada has an unfettered right to regulate the Northwest Passage as it would land territory.

Mr. McDorman agreed, stating that "there is absolutely no question in international law that the waters, including the sea floor and all of the resources therein within the Arctic archipelago and the Northwest Passage, are Canadian." Rather than being a dispute over “whether the Northwest Passage area is Canadian,” he described the dispute as being over the question of “how Canadian is the Northwest Passage? Is it like Wascana

46 FAAE, *Evidence*, 20 November 2012. Indeed, according to Canada’s 2010 Arctic foreign policy statement: “Canada’s Arctic sovereignty is long-standing, well established and based on historic title, founded in part on the presence of Inuit and other indigenous peoples since time immemorial.”


49 Under Article 38 of UNCLOS, "all ships and aircraft enjoy the right of transit passage" through straits used for international navigation, "which shall not be impeded..."


Lake in Regina or Halifax harbour...all Canadian for all purposes, in other words? That would be the Canadian view. Is it all Canadian but for a right of vessel navigation? That is the position asserted by the United States.\(^52\)

With respect to the U.S. position, Mr. Kessel argued firmly that the Northwest Passage (see Figure 2) is not the same as the Straits of Malacca, Gibraltar or Hormuz. He noted that the Northwest Passage has never been used as an international strait for navigation, especially when considering that the Strait of Malacca could see 10,000 ships pass through it each year, and that until very recently the waters of the Northwest Passage were impassable. He stated: "You can't create a right out of something just because the nature of water changed from ice to liquid.\(^53\) Furthermore, vessels that now enter Canadian Arctic waters enter with Canada's permission, the system for which will be discussed in a subsequent section of this report on maritime traffic. Mr. Kessel said that "We have been in control, and we've been strengthening that control over the period of time under question."\(^54\)

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52 Ibid.
54 Ibid.
Despite the different positions held by Canada and the United States on the Northwest Passage, Professor McRae suggested that, in fact, the issue “is a matter of principle, not really a matter of practice.” He noted that the U.S. “does not object in practice to the actual jurisdiction being exercised by Canada,” and that the central issue at stake for the United States is really a geopolitical concern over precedent regarding freedom of navigation; it “is more about the implications of Canada’s position for other waterways around the world than concern about what Canada does or might do.” There is a considerable amount of cooperation between Canada and the United States in the Arctic, notwithstanding this interpretative legal disagreement about the Northwest Passage. Within such a context, Mr. McRae argued “that Canada’s position in respect of the Northwest Passage is best enhanced by simply going ahead with treating it and managing it as internal waters and retaining it as open to international navigation […]”

55 FAAE, Evidence, 27 November 2012.
56 Ibid.
57 Ibid.
The actual enforcement of Canada’s legal position could be an issue in the future, particularly given the predicted increase in maritime traffic in the Arctic and the resources that will be needed to monitor and respond to incidents related to such traffic. While emphasizing that Canada’s sovereignty over its Arctic waters “is secure and is not under threat,” Shelagh Grant, Adjunct Professor in the Canadian Studies Department at Trent University, told the Committee:

What may be at risk is Canada’s ability to enforce its own laws and regulations in adjacent waters should increased ship traffic outpace investment in sufficient Coast Guard or patrol ships to respond to non-compliance with Canadian laws.58

It is for this reason that Ms. Grant argued that investments in maritime infrastructure must be considered in addition to Canada’s mandatory ship reporting technology, which is administered by the Coast Guard through the Northern Canada Vessel Traffic Services Zone (NORDREG). She told the Committee, “We’re behind on infrastructure. We’re ahead in technology.”59

Resolving Disputes

Witnesses before the Committee were clear that, while there are legal disputes in the Canadian Arctic, these do not amount to a sovereignty crisis. From the perspective of the Government of Canada, Mr. Kessel told the Committee that there are three disputes in the Arctic that Canada is concerned with:

- A land dispute — the only one in the Canadian Arctic — with Denmark over Hans Island;
- A maritime boundary dispute with Denmark over two small (65 square nautical miles) areas in the Lincoln Sea north of Ellesmere Island and Greenland; and
- A maritime boundary dispute with the United States in the Beaufort Sea north of the Yukon and Alaska.

Canada cooperates closely with other Arctic states — particularly the United States — in various endeavors in the Arctic, and Mr. Kessel stated that these three disputes “are well-managed and will be resolved peaceably in accordance with international law.”60

On what Professor McRae called the “Lilliputian”61 dispute over Hans Island, Mr. Kessel noted that the island claimed by both Canada and Denmark is

58 FAAE, Evidence, 29 November 2012.
59 Ibid.
60 FAAE, Evidence, 20 November 2012.
61 FAAE, Evidence, 27 November 2012.
1.3 square kilometers, barren and uninhabited. He stated that this dispute has no implications for the waters or seabed surrounding the island, and that “regular bilateral discussions take place to move toward a mutually acceptable solution.”

In terms of the Lincoln Sea, while Canada and Denmark had agreed that the boundary between them should be an equidistant line, they disagreed on some technical aspects of how to draw it. Danish and Canadian technical experts have met informally to exchange information. Mr. Kessel stated that officials of both governments believe that such work “will provide a good basis to move forward on this dispute.” Shortly after Mr. Kessel's appearance before the Committee, on 28 November 2012, Canada and Denmark announced that they had reached a “tentative agreement” on the boundary in the Lincoln Sea.

On what Mr. Kessel called the “more interesting” question of the Beaufort Sea, he explained that the United States, "does not agree with Canada’s consistent and long-held position that the 1825 Treaty of St. Petersburg establishes the maritime boundary along the 141st meridian of longitude, resulting in a disputed maritime area measuring approximately 6,250 square nautical miles." He added that while both governments have offered oil and gas exploration licenses and leases in the disputed zone, neither country has allowed exploration or development in the area pending resolution of the dispute. Government experts from both countries have been engaged regularly as part of a dialogue over this dispute.

Many Canadians probably believe that the most significant sovereignty issue in the Canadian Arctic relates to the waters of the Northwest Passage. As noted earlier, however, the issue in the Northwest Passage is not the sovereignty of the waters (which are Canadian), but their legal status.

In regards to these three disputes, the Government of Canada will continue to pursue through diplomatic means its long-standing legal positions. The government argued in its 2010 Statement on Canada’s Arctic Foreign Policy that these disagreements are well managed, neither posing defence challenges for the country “nor diminishing Canada’s ability to collaborate and cooperate with its Arctic neighbours.” Mr. McDorman similarly summarized the practical implications of these disputes as follows:

…it is not the existence of the dispute that matters. Rather, it is whether the dispute is causing friction between the states involved. Using this standard, none of Canada's perceived Arctic disputes come close to a crisis level. More colourfully perhaps, whatever

64 FAAE, Evidence, 20 November 2012.
the causes of the loss of ice cover in the Arctic Ocean, it is not caused by the heat arising from Canada’s international ocean law disputes.  

Therefore, while exercising sovereignty will remain an ongoing and key element of Canada’s policies in the Arctic, fending off supposed challenges to that sovereignty need not be.

At a more general level, witness testimony did not suggest that the Arctic will be an arena of inter-state conflict or unregulated competition in the near to medium future. When asked whether he predicted a future of cooperation or conflict in the Arctic region, Professor Lackenbauer told the Committee that he is “unambiguously expecting cooperation.” Similarly, Mr. McDorman stated that in regards to ocean law, “there is a fair degree of bilateral and multilateral cooperation and, perhaps more important, common understanding amongst the Arctic states...” Professor Lackenbauer argued that:

…despite all of the media hoopla over this alleged “race for resources”, the simple fact remains that most of the Arctic’s exploitable resources lie within clearly defined national jurisdictions. Conflict over Arctic resources remains highly unlikely, particularly in the North American part of the circumpolar world.

This view seems to be shared by the Canadian government. In reference to the 2008 Ilulissat Declaration cited above, Jillian Stirk of DFAIT told the Committee that “Canada recognizes that international cooperation strengthens our national efforts to address the opportunities and challenges emerging in the north.” Professor Byers, who advised the then-Minister of Foreign Affairs, Lawrence Cannon, on Canada’s 2010 Arctic foreign policy document, told the Committee that even with the region’s “Cold War history,” there is “little prospect of military conflict between nation-states.” He summarized the current Arctic landscape from the perspective of Canadian foreign policy as follows:

…generally, it’s a pretty positive scene: international cooperation, recognition of this by the Canadian government, and now, with our upcoming chairmanship of the Arctic Council, an opportunity to lead that cooperation further, to build on the government's Arctic foreign policy statement from two years ago. The challenges are enormous, obviously, and so too are the opportunities.

While there is concern over the growing interest of non-Arctic states in the circumpolar region, based on his research of East Asian foreign policy, Mr. Manicom told the Committee that East Asian scholars of Arctic politics also recognize the region’s

66 FAAE, Evidence, 26 February 2013.
67 FAAE, Evidence, 22 November 2012.
68 FAAE, Evidence, 26 February 2013.
69 FAAE, Evidence, 22 November 2012.
70 FAAE, Evidence, 20 November 2012.
71 FAAE, Evidence, 27 November 2012.
geopolitics “as being largely cooperative.”

Professor Lackenbauer pointed out that, “International interest in a region doesn't mean that we should inherently feel threatened.”

**Public Perceptions of the Arctic**

Witnesses before the Committee suggested that a disconnect exists to a certain extent between some of the key findings discussed above and public perceptions of those issues. Some suggested that the reality of Canada’s Arctic sovereignty has not always translated clearly into public discourse. The challenge posed by any discussion of sovereignty is that while the issue is essentially a legal one, the term is often used more generally by the media and others, with various connotations. Speaking against the background of Norway and Russia having settled a longstanding maritime boundary dispute peacefully in 2010, Mr. Funston told the Committee:

> Sovereignty is a very interesting proxy in Canadian policy for a whole range of things, domestic and international. There aren't many other Arctic states that actually have sovereignty crises, as we do from time to time. The Norwegians, for example, when they were dealing with the Russians on Svalbard, did not have a sovereignty crisis. They had an issue.

Professor Lackenbauer argued that Arctic sovereignty has been a long-standing preoccupation of the Canadian public, and therefore Canadian governments. He said:

> ...historically the catalyst for our foreign policy interest in the Arctic has been a rather neurotic concern about sovereignty over anything else. We have a long history of perceiving sovereignty threats, particularly from the United States, followed by a brief surge of political interest and commitments to invest in our north. Then when the immediate crisis passes and Canadians realize sovereignty is not in clear and present danger, our usual track record is to lose interest in the north and fail to fulfill political promises.

> This time I hope, and I sense, it is different.

He also argued that there is a need to capitalize on the “intense” public interest in the Arctic and on improved government messaging regarding the region, as established in the 2009 Northern Strategy and 2010 foreign policy statement. In his words, “It's about messaging and consistency of message. It's about correcting some of the misinformation that's circulated…”

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76 Ibid.
Witnesses cited several examples of public misperceptions about a range of issues in the Arctic. For example, in her appearance before the Committee, professor Charron opened her remarks by recalling a public event on the Arctic that had been held in Winnipeg the night before. She explained how this event, the themes it raised, and the viewpoints that were expressed by those in attendance illustrated the need for improved public messaging and education. She told the Committee that the event,

…was extremely predictable in its message, both for what it did raise and for what it didn't raise. Four academics were asked to speak about the Arctic. There were themes that they did raise: there are opportunities in the north, but we must be very concerned about who has those opportunities; the U.S. is our greatest challenge; and our sovereignty is under threat. There were lots of maps … [which show] the potential conflict as a result of the continental shelf.

What was not raised was Canada's actual northern strategy. There was no mention of the living conditions in the north. There was absolutely no mention of the Arctic Council or the fact that Canada will chair it. I might add that there was no mention of the Canadian chapter chairing the [Inuit Circumpolar Council] from 2014 to 2018.77

From the perspective of economic development, Ms. Grant told the Committee, for example, that “Many Canadians are unaware of the degree of industrialization already taking place in the Arctic due to new mining developments and the associated ship traffic.”78 For his part, Tom Paddon, President and Chief Executive Officer of Baffinland Iron Mines argued the need to “inject a fact-based narrative” into the public perception of resource development in the north.79

In general, witnesses agreed that Canadians have an interest in and affinity for the Arctic. However, with respect to sovereignty issues and a host of others relevant to the Arctic and Canada’s Arctic policies, several underlined that there is a general need for increased public awareness. Such public education can ensure continued and informed support for Canadian domestic and foreign policies related to the region.

The fact that southern Canadians may not know enough about their own Arctic makes it even more difficult for them to understand the complexity of the circumpolar Arctic, given the real differences that exist among the eight Arctic states in terms of geography, demographics, history, etc. Among other suggestions to increase knowledge about the north throughout Canada, Geoff Green, Founder and Executive Director of the Students on Ice Foundation, advocated the establishment in Ottawa of a “Polar House,” which he described as “a national centre to raise awareness about and to celebrate the past, present, and future of the Arctic.”80 Karen Barnes, President of Yukon College, and

77 Ibid.
78 FAAE, Evidence, 29 November 2012.
79 FAAE, Evidence, 5 February 2013.
80 FAAE, Evidence, 7 March 2013.
Shelagh Grant of Trent University also supported this initiative. Ms. Grant even commented that, “The irony is that I was part of a committee, I think it was 25 years ago, when we first brought it up. ... We are the only Arctic country that does not have a polar centre or a polar house that would have a museum and resources associated. I couldn’t encourage that...more.”\(^{81}\)

In terms of knowledge about the Arctic Council itself, Sara French of the Walter and Duncan Gordon Foundation told the Committee that in a poll released in January 2011 Canadians had scored significantly better than Americans in terms of their knowledge of the Arctic Council. This fact was little comfort, however, given that only one-third of Canadians in the three territories and 15% of southern Canadians were able to state clearly that they had heard of the organization. She therefore argued the need to raise awareness about the Arctic Council’s goals and programs, both within Canada and abroad. She added that it was also important that northerners were aware of the work underway at the Arctic Council and elsewhere, arguing that plain language summaries of often technical Arctic Council reports would be useful.\(^{82}\)

Bernard Funston and David Scott of the Canadian Polar Commission told the Committee that they and their colleagues had spent the past two years revitalizing the Commission, whose purpose, Mr. Scott explained, was “to be Canada’s national institution for furthering polar knowledge and awareness.”\(^{83}\) The goal of the commission is to aggregate polar knowledge, synthesize it and communicate it “to the general public, to the international community, and to decision-makers....”\(^{84}\) Mr. Funston added his belief that as part of Canada’s upcoming chairmanship of the Arctic Council, there is a desire on the part of the government to increase understanding of these issues within Canada. He said: “I can see that it’s really bringing home the Arctic Council’s work in order for it to be better disseminated within Canada, and that is a role where the commission could assist.”\(^{85}\)

\(^{82}\) Ibid.
\(^{84}\) Ibid.
\(^{85}\) Ibid.
Climate Change

As was noted in the beginning of this report, recognition of the need to address environmental challenges in the Arctic provided the genesis for circumpolar cooperation. The initial regional mechanism that was developed, the 1991 Arctic Environmental Protection Strategy, became the basis for the broader work of the Arctic Council, which was founded in 1996. In 2000, that body then agreed to conduct a comprehensive arctic climate impact assessment. This report took 3 years to complete and involved over 300 researchers, indigenous representatives and other experts from 15 countries. While more and up-to-date scientific information has been gathered in the years since this study was published, the general points from that comprehensive report continue to form the basis for discussions about environmental issues in the north, which witnesses argued is on the front line of climate change.

Witnesses told the Committee that there are global connections to the climate change that is being experienced locally in the Arctic, and that the change occurring there has implications not only for the region, but the global system. In the first instance, these changes are having a disproportionate impact on the Arctic, which is affecting in a tangible way the daily lives of the people who live there and the local ecosystems. In the second, the climate change that is being seen in the Arctic is in turn shaping climatic events and forces in other parts of the world. Dr. David Hik, who is also the President of the International Arctic Science Committee, summarized the situation as follows: “I think the scientific consensus is that the Arctic is headed to a new state that will substantially change the north, and indeed the planet.”

With respect to the effect that climate change is having on the circumpolar region, and more specifically, the Canadian north, many witnesses spoke in personal terms and from direct experience. For example, Duane Smith, President of the Inuit Circumpolar Council (Canada), told the Committee: “With the changing Arctic, we’re living on the edge, the frontier, if I may, in regard to the changes that are taking place. We’re seeing it and living it first-hand.” Dr. Barnes of Yukon College similarly said: “It is real. If you live up here, you see it constantly, and it’s facing people in terms of food security, transportation, and other issues like that.” Andy Bevan, Acting Deputy Minister in the Northwest Territories' Department of Aboriginal Affairs and Intergovernmental Relations, told the Committee:

87 FAAE, Evidence, 19 March 2013.
88 FAAE, Evidence, 5 March 2013.
89 FAAE, Evidence, 11 December 2012.
Temperatures are warming rapidly, coastal communities are facing increased coastal erosion, and the season for winter roads is shortening and becoming less predictable. Additionally, thawing permafrost is compromising transportation, buildings, and other infrastructure, and northern ecosystems are changing rapidly, which in turn is affecting traditional food security for many of our residents and communities.  

In relation to all of these points, Stephen Mooney, Director of the Cold Climate Innovation Research Centre at Yukon College, went so far as to argue that, "For the northern communities the number one interest, I believe, is their concern about climate change, how the north is changing, and the way they can adapt."  

Specialists in climate change and Arctic science also provided their perspective to the Committee. In addition to the dramatic sea ice melt that has been recorded in the Arctic, John Crump, Senior Advisor on Climate Change at the GRID-Arendal Polar Center, described an “increasingly green Arctic.” He told the Committee: 

Thirty years of satellite observations show the conditions today resemble those that were four degrees to six degrees of latitude further south in 1982; that's around 400 to 700 kilometres, depending on where you're measuring. Of course, habitat fragmentation, pollution, industrial development, overharvesting of wildlife, etc., are all having impacts at a regional and wider basis.

While debates about climate change in the Arctic tend to focus more on the waters and ice, which will be discussed in the next section of this report, Dr. Hik also pointed to significant land-based changes to the Arctic environment. He told the Committee that with decreasing snow levels and increasing temperatures, Arctic shrubs, which are able to grow faster, are increasingly appearing above the snow, thus darkening the surface and absorbing more sunlight, which would have previously been reflected by the snow and ice. He said:

The second large change is a change in the seasonality of snow cover. Snow melting earlier in the season results in a higher albedo, a darker surface that absorbs more of the sun's solar energy. That ends up changing the depth of the active layer of permafrost, which can cause surface hydrology to change, that's the way streams and rivers and lakes are connected to each other on the frozen ground.

All these things are cumulative and seem to establish a positive feedback. The process of warming accelerates as that land surface changes. It's occurring over a very large area. And because it's changed only within the last decade, we really haven't anticipated the consequences.
The accelerating change in the Arctic climate is reinforcing the need for Arctic Council countries to focus on adaptation measures for circumpolar residents and on steps to protect the fragile environment.

A core element of the work that has been undertaken at the Arctic Council since 1996 relates exactly to environmental protection. One of the Council’s six working groups looks specifically at “protection of the Arctic Marine Environment,” while three others focus on monitoring threats to the Arctic environment and on work related to contaminants and conservation of Arctic flora and fauna. The fragile nature of the Arctic environment, and the need for northern economic development activities to engage in planning that takes these realities and environmental protection needs into consideration, was highlighted by Geoff Green. He used the example of a recent incident involving narwhal whales that migrate “out of summer feeding grounds in the Canadian Arctic Archipelago into Baffin Bay.” Those whales had been turned back from their intended destination “by seismic exploration.”

The whales of course use echolocation in a quiet ocean to hunt and navigate. They became trapped at breathing holes in the channels of the islands until it was too late for them to reach open water, when the holes froze up. They starved, and they died.

This kind of problem will likely increase as industrial activity increases, unless it’s mitigated and studied properly. Certainly, the petroleum exploration people never intended to kill thousands of whales several hundred kilometres distant from their operations. It shows how in the Arctic, all activities, both human and natural, are connected. Even short-term activities can have long-term impacts.94

Related to this need to protect the fragile Arctic environment, Professor VanderZwaag made a number of recommendations to the Committee related to shipping standards and pollution in the Arctic, as well as on management and governance issues related to the Arctic Ocean. As part of one of them, he noted the importance of ecosystem-based management and related work being conducted through the Arctic Council. But he argued that “we are a long way from putting in operation the ecosystem approach.” He noted more specifically that there is currently no “network of marine-protected areas” in place in the Arctic, “nor are we even close to it.”95

Some witnesses suggested that the Arctic Council could play a greater role in addressing climate change, particularly with respect to concrete deliverables and outcomes. Michael Byers implied that what was needed was impetus and leadership. He told the Committee:

94 FAAE, Evidence, 7 March 2013.
95 FAAE, Evidence, 19 March 2013.
My message to you on this is that the Arctic Council has been ready before to act in concert. It was prevented by [a U.S.] administration eight years ago that didn’t realize the full impact and potential consequence of climate change. We know better today, across party lines, that [climate change] is a real problem, and the Arctic Council is a place.96

Mr. Crump argued that the Arctic Council has to date not done enough follow-up work on its own ground-breaking 2004 regional climate impact assessment, which was noted above. In his opinion, this is an area toward which “Canada could make a major contribution.”97 For his part, Mr. Bevan suggested that “there is a strong environmental agenda that can be championed not necessarily only through Canada’s chairpersonship, but also through the future chairpersonship of the U.S.” Rather than being focused on policy areas like greenhouse gas reductions, which are the subject of international negotiations under the auspices of the United Nations, Mr. Bevan said that the emphasis in the Arctic Council could be on “environmental stewardship.”98

Black Carbon

A specific area that drew comments and recommendations from a number of witnesses relates to what are known as short-lived climate forcers, particularly black carbon. Witnesses noted that black carbon is both an environmental and a health concern. In basic terms, black carbon in most industrialized countries comes from the burning of diesel fuel in generators and trucks.99 Diesel fuel is used ubiquitously in northern communities. The particulates (soot) generated by these activities, which are “heavier than air,” fall on the snow and ice and then act to absorb sunlight, accelerating the melting of the ice; hence the term “climate forcer.” As Professor Byers explained to the Committee, “The ice and the snow reflect 90% of the solar energy; the particulates absorb 90%.” Black carbon, thus, both accelerates and exacerbates “the larger climate changes resulting from other greenhouse gases.” In fact, he noted that some scientists “say that upwards of 40% or 50% of the snow and ice melt in the Arctic is the result of these particulates.”100 Mr. Crump argued for action in this area, stating:

While deep cuts in CO2 remain the backbone of efforts to limit the long-term consequences of climate change ... rapid reductions in emissions of short-lived climate forcers such as black carbon and methane have been identified as perhaps the most effective strategy to slow warming and melting in the Arctic over the next few decades.101

96 FAAE, Evidence, 27 November 2012.
97 FAAE, Evidence, 19 March 2013.
98 FAAE, Evidence, 26 February 2013.
99 It can also be emitted from "residential stoves, forest fires, agricultural open burning and some industrial facilities." A full explanation of black carbon is available on the website of the Climate and Clean Air Coalition. See: Climate and Clean Air Coalition, Short-Lived Climate Pollutants.
100 FAAE, Evidence, 27 November 2012.
101 FAAE, Evidence, 19 March 2013.
Professor Byers argued that there is need and room for enhanced cooperation and action within the Arctic Council on short-lived climate forcers such as black carbon and Arctic haze. Ms. Stirk of DFAIT informed the Committee that Canada has taken action in this area, as it “launched the Climate and Clean Air Coalition to Reduce Short-Lived Climate Pollutants in February 2012.”

Building on this initiative, Mr. Crump noted that “Canada’s Minister of the Arctic Council has said that Canada will advance work on short-lived climate forcers like black carbon.” In his view, "This is an important statement." Canada could expand on this initiative, he argued, by working in the Arctic Council to adopt “strong” measures, including the establishment of “a negotiating body on a circumpolar black carbon instrument to be adopted by the next ministerial meeting.”

With respect to the need for circumpolar cooperation to address black carbon, and the potential challenges and resistance that could be encountered in doing so, Professor Byers drew an analogy with Canada–U.S. cooperation in the late 1980s and early 1990s on acid rain, which he argued had elicited "similar concerns" in the countries concerned during initial discussions over whether and what remedial actions should be taken. Mr. Crump also noted an important Canadian precedent on an earlier environmental mechanism, as an example of what could be accomplished in the months and years ahead:

In the 1990s, Canadian data assembled through the national contaminants program, combined with the moral force of the Arctic indigenous peoples and the desire of all Arctic states to participate, contributed to the negotiation and signing of the Stockholm Convention on Persistent Organic Pollutants.

This was the first international environmental instrument that actually banned toxic substances and it is seen as a major precedent. This was the result of sound research and the alliance of indigenous peoples’ organizations and Arctic states, something that's always possible at the Arctic Council. It led to an important step forward in global environmental governance.

102 FAAE, Evidence, 20 November 2012.
103 It was launched by Bangladesh, Canada, Ghana, Mexico, Sweden, the United States and the United Nations Environment Programme. “The Coalition is open to countries and non-state actors that are committed to taking action on short lived climate pollutants, and wish to join in this global effort.” The group’s initial work is focused on methane, black carbon and hydro fluorocarbons. Its objectives are to raise awareness, enhance and develop new national and regional actions, promote best practices, and improve scientific understanding of short lived climate polluters and mitigation strategies. See: Climate and Clean Air Coalition, About. One year after its launch, the Coalition had some 50 partners. See: Climate and Clean Air Coalition, "Climate and Clean Air Coalition Marks One Year Anniversary," 20 February 2013.
104 FAAE, Evidence, 19 March 2013.
105 Ibid.
Returning to the current issue of potential efforts to reduce and mitigate the effects of black carbon, Mr. Crump stated that "It's important that the Arctic Council be seen to be in the forefront of this work."\(^{106}\)

**Scientific Research and Cooperation**

Witnesses drew the connection between the need to address climate change and related adaptation and environmental protection in the Arctic, and scientific research. Professor Byers told the Committee that,

...the Arctic is changing so very quickly that it is imperative that we have the very best science possible on all these issues, and this science should be exercised and dealt with in terms of its recommendations and consequences in concert with other countries.\(^{107}\)

One of the recommendations put forward by Dr. Anita Dey Nuttall, Associate Director at the University of Alberta's Canadian Circumpolar Institute, pertained to the "need for Canada to have an overarching arctic-northern science policy," while she also noted "the potential of using science diplomacy as a tool for Canada's arctic foreign policy."\(^{108}\)

Danielle Labonté, Director General of the Northern Policy and Science Integration Branch in Aboriginal and Northern Affairs Canada, also highlighted "the foundational role of Arctic science." She drew the Committee's attention to two new initiatives. The first is the Canadian High Arctic Research Station, which "will be a year-round facility, in Cambridge Bay, Nunavut." This research station "will advance Canada's knowledge of the Arctic in order to improve economic opportunities, environmental stewardship, and the quality of life for northerners and all Canadians." The second is the Beaufort regional environmental assessment, which is a four-year partnership between different levels of government, Inuit communities, academia and industry, which aims "to develop a knowledge base of scientific and socio-economic information in advance of oil and gas development so as to inform the decision-makers of the region..."\(^{109}\)

Referring to the Government of Canada’s 2009 *Northern Strategy*, Dr. Hik told the Committee that "the underlying support of the four pillars is science and technology, what once was called the "one ring that binds them all"." He therefore expressed his optimism "that we have capacity. We just need to make sure we focus that."\(^{110}\)

Drawing the Committee’s attention to initiatives underway in the United States, including their five-year inter-agency research plan related to scientific research, Dr. Hik also suggested that enhanced "bilateral scientific

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106 Ibid.
Maritime Traffic in Canada's Arctic Waters and the Arctic Ocean

As discussed, climate change has significant consequences for the Arctic, not the least of which is the reduction in sea ice cover and extension of ice-free periods. Along with other factors, these changes are opening Canada's north to considerable natural resource development. For these reasons, and the fact that Canada has an extremely long Arctic coastline, it has to prepare to manage increased maritime traffic in its Arctic waters and to consider the implications of increased vessel activity in the international Arctic Ocean beyond its waters. As part of these management efforts, two areas that require Canada’s attention are ship standards and safety regulations, and search and rescue capabilities. On the first issue — regulations — there is a need for continued enforcement of Canada's established legal regime in its Arctic waters and for the conclusion of a robust and mandatory polar code to govern the Arctic Ocean. This reality has been reflected in Canada’s stated priority sub-themes for its upcoming chairmanship of the Arctic Council, one of which is "responsible and safe shipping." On the second key issue, now that Arctic Council states have taken the important step of reaching a binding agreement on search and rescue, the focus must shift to implementation, which will necessitate significant Canadian resources.

There is evidence that Arctic sea ice is shrinking and thinning and that both of these effects are accelerating. From the pan-Arctic perspective, in September 2012, scientists from the National Snow and Ice Data Center, which is based in Boulder, Colorado, announced that Arctic sea ice had melted to what was likely “its minimum extent for the year on 16 September,” a level which was also “the lowest summer minimum extent in the satellite record.”112 Two months later, the World Meteorological Organization (WMO) issued its provisional statement on the state of the global climate in 2012. The statement concluded that not only had the low recorded on September 16th broken “the previous record low set on September 18th, 2007 by 18 percent,” it was also “49 percent or nearly 3.3 million square kilometres below the 1979–2000 average minimum.”113 The WMO statement also commented: “The difference between the maximum Arctic sea ice extent on March 20th, 2012 and the lowest minimum extent on September 16th was 11.83 million square kilometres — the largest seasonal ice extent loss in the 34-year satellite record.”114 From the Canadian perspective, Environment Canada reported that: “In Northern Canadian Waters, during summer 2012, minimum ice coverage of 8.4% was recorded

111 Ibid.
112 National Snow and Ice Data Center, “Press Release: Arctic sea ice reaches lowest extent for the year and the satellite record,” 19 September 2012.
114 Ibid.
for the week of September 10, breaking the previous Canadian Arctic record set in 2011 (9.4%).”\textsuperscript{115}

Perhaps the most profound implication for the Arctic of the decline in sea ice is the predicted increase in maritime traffic in the region. Professor Byers impressed upon the Committee the rate at which the climate in the Arctic is changing, and the corollary effect the pace and extent of these changes is having on related predictions of activity in the area. He told the Committee:

I remember six or seven years ago, when I was warning that we might see seasonally ice-free waters through the Northwest Passage, I was assured by very many people, including a number of distinguished scientists, that my concerns were overblown and that we wouldn't actually see any significant melt-out of the Arctic Ocean ice pack until at least 2050, and probably not until 2100. The leading scientists are now predicting that we could see a total late-summer melt of Arctic sea ice as early as 2015 to 2020. That is truly astounding—not only for what it says about the pace of climate change, but also for the consequences. […]\textsuperscript{116}

The fact that Arctic waters are predicted to be more accessible sooner is significant because of what that means for access and maritime traffic.

**New Shipping Routes**

As has been documented in numerous reports, what is commonly referred to as the “Arctic” — a general expression which in the context of maritime traffic typically can include the Northwest Passage through Canadian waters, the Northern Sea Route (or Northeast Passage) through Russian waters, or the Polar Route through the Arctic Ocean — represents a potential saving on time and distance for maritime transits between Europe and Asia. The argument that is put forward on the basis of this fact is as follows: Arctic ice is diminishing, the various Arctic routes are shorter than traditional shipping routes, and resource development projects are proliferating in the circumpolar north; therefore, commercial maritime traffic in the Arctic will increase substantially.

In one high-profile demonstration of the degree to which the circumpolar region could be an arena of international commercial activity in the future, August–September 2012 saw the icebreaker vessel, the *Snow Dragon (Xuelong)*, become the first from China to cross the Arctic Ocean. (As part of the same two-way journey, it also sailed the Northern Sea Route between the Pacific and Atlantic oceans.)\textsuperscript{117} Ms. Grant told the Committee: “The transit across the Arctic Ocean by China’s conventional icebreaker last summer was likely a harbinger of what is to come: icebreakers creating a path for a convoy of bulk

\textsuperscript{115} Environment Canada, “Canadian Arctic Sea Ice Reached Record Low in Summer 2012.” For further information, see Environment Canada, *Ice Coverage Records*.


\textsuperscript{117} Quoted in an Associated Press article, “China’s Snow Dragon icebreaker makes 85-day voyage to become country’s first vessel to cross Arctic Ocean,” *National Post*, September 28, 2012. See also, Jon Viglundson and Alister Doyle, “First Chinese ship crosses Arctic Ocean amid record melt,” *Reuters*, 17 August 2012.
The combination of changes in the international market for natural gas and the increased melting of polar ice also resulted in another first in November 2012. In that month, the gas tanker ship *Ob River*, which had been constructed with a view to shipping gas west to North America, instead set sail from Norway through the Northern Sea Route to Japan, the first ship of its kind to do so in the winter. Most recently, a study published by researchers at the University of California in January 2013 analyzed climate model projections of sea ice to study potential new trans-Arctic shipping routes linking the Atlantic and Pacific Oceans. On the basis on their findings, they argue that “by mid-century, changing sea ice conditions [will] enable expanded September navigability” for “open-water ships crossing the Arctic along the Northern Sea Route …, robust new routes for moderately ice-strengthened…ships over the North Pole, and new routes through the Northwest Passage for both vessel classes.”

Even so, with specific respect to the situation in Canada’s Arctic waters, the Committee heard a fairly sober assessment of current and predicted trends in activity from experts. Maritime traffic in the Northwest Passage did increase by 29.2% from 2011 to 2012 when there were 31 total transits. However, it is important to underscore that 23 of those transits were done by “pleasure craft,” with the remaining activity attributable to cruise ships, government vessels, tugs, barges, tankers and research vessels. Many witnesses cautioned that the reduction in ice cover in the broader Arctic region will not necessarily lead to a rapid increase in shipping activity through the Northwest Passage in the near term (see Figure 3). Those waters remain hazardous to vessels. Moreover, diminished ice does not mean an absence of ice, and the changing ice patterns and composition of that ice are in some ways making the waters less predictable for vessels. On this issue, Laureen Kinney, Associate Assistant Deputy Minister with the Department of Transport, told the Committee:

The potential is huge, but the actuality is quite slow.

I think it’s important to also reinforce the point that was made earlier. The risk is so substantial in terms of unpredictability, with these more open areas and with climate change impacts. The risk is actually more undefined, so there is a significant impact on

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120 In their paper, the researchers “reiterate that these results reflect conditions for peak late-summer (September) shipping season only, and are driven solely by projected reductions in sea ice thickness and concentration. Although sea ice currently represents the single greatest obstacle to trans-Arctic shipping, numerous additional factors, including dearth of services and infrastructure, high insurance and escort fees, unknown competitive response of the Suez and Panama canals, poor charts, and other socioeconomic considerations, remain significant impediments to maritime activity in the region.” See: Laurence C. Smith and Scott R. Stephenson, “*New Trans-Arctic shipping routes navigable by mid-century*,” *Proceedings of the National Academy of Sciences of the United States of America Early Edition*, January 2013.

121 FAAE, *Evidence*, 28 February 2013. Shelagh Grant told the Committee that “34 ships sailed along the Northern Sea Route” above Russia in 2011, which were “for the most part large tankers carrying oil or liquefied natural gas, other bulk carriers, refrigerator ships carrying salmon, or research vessels.” Written presentation of Shelagh Grant provided to Committee Clerk, 29 November 2012.
insurance and the capability of the vessels that want to operate in these areas to do so with sufficient liability insurance, etc.\textsuperscript{122}

In the words of the Coast Guard’s Deputy Commissioner for Operations, Jody Thomas, “There is a romanticism about the Northwest Passage. It promises quicker transit from east to west. The reality is it remains treacherous and dangerous as the ice continues to break away and float south.”\textsuperscript{123} Ms. Thomas also pointed out that the break-up in the ice has actually caused it to move south into the Northwest Passage, which has made those waters “inherently more dangerous.” She told the Committee:

Last summer, for example, there was significantly more ice in the Northwest Passage and in Frobisher Bay it was iced in for quite some time due to the winds and the breakup of the ice. Therefore, the need for icebreakers is actually increasing as the Arctic ice breaks up. It is not less dangerous.\textsuperscript{124}

Not counting the need for refits at a given time, the Canadian Coast Guard has seven icebreakers available for the Arctic in the summer months, one of which is dedicated to scientific work.\textsuperscript{125} The fleet is being renewed, and Canada is planning to have its first polar icebreaker, the \textit{John G. Diefenbaker}, available to replace its current heavy icebreaker, the \textit{Louis S. St. Laurent}, by late 2017. Ms. Thomas told the Committee that this new icebreaker “will provide the coast guard with greater range capability and accessibility over the entire year in the Arctic, which is important as the shipping season extends and the breakup of ice is found in non-traditional areas.”\textsuperscript{126}

\textsuperscript{122} FAAE, \textit{Evidence}, 28 February 2013.
\textsuperscript{123} Ibid.
\textsuperscript{124} Ibid.
\textsuperscript{125} Russia has by far the largest fleet of major ice-breaking vessels of any Arctic nation, 36, which includes Russia's 6 vessels that are nuclear powered. See: John Higginbotham, Andrea Charron and James Manicom, “\textit{Canada-US Arctic Marine Corridors and Resource Development},” \textit{Policy Brief}, No. 24, Centre for International Governance Innovation, November 2012, p. 5.
\textsuperscript{126} FAAE, \textit{Evidence}, 28 February 2013.
The general picture that emerged from the Committee’s meeting was one of increased transits and traffic in commercial cargo in the Northern Sea Route above Russia, the current preferred route for shipping companies, and potentially over the North Pole in future years depending on a number of environmental and economic factors. The Northwest Passage, on the other hand, is not predicted at present to become a major or favoured route for commercial cargo transhipment. What it will feature instead is significant destination and origin shipping related to resource development and community resupply, traffic which is predicted to increase substantially in the near term.

As Kells Boland, Project Manager of PROLOG Canada Inc., explained to the Committee:

The shortcut between north Asia and northern Europe, which everybody talks about, is ultimately the polar passage, but between now and when that happens, it's the Russian northern sea route or the Northeast Passage, not the Canadian Northwest Passage. The Canadian Northwest Passage between north Asia and northern Europe is about
1,000 kilometres longer, so it just isn't in play as a shortcut between north Asia and Europe.

What it is in play...is as an origin-destination, both for the origination of large-scale mineral exports to foreign countries—international trade—and a destination port for the resupply of those very resource developments that will be generating those exports.  

Mr. Boland pointed out that inbound resupply is “the only commercial transportation activity taking place in the Canadian north right now.” He also argued that even though the Northern Sea Route above Russia is currently, and the polar route could be, the preferred corridors for commercial cargo vessels in the Arctic, that the wider Arctic region is not likely to become a main international shipping lane of containerized traffic so long as Arctic routes are restricted to seasonal operations. He noted that companies in that business sector “have scheduled services set up, with time-specific departures and arrivals, and [they’re] not going to change that system as long as it’s a seasonal access to the Arctic.”

This suggests, then, that general debates about “shipping” in the Arctic can be somewhat confusing precisely because of the fact that they tend to combine and conflate actual activity and conditions with future predictions of activities and conditions, different categories of maritime traffic, and the geography of the various national and international waters that make up the circumpolar region. Predictions regarding general trends of maritime traffic in the wider circumpolar region must be treated separately from specific analyses of activity that will affect Canada most directly.

As noted, while Canadian Arctic waters are not likely to be used as a transhipment route for commercial cargo in the near future, they are likely to become significantly busier and more crowded with local traffic that is connected to the increasing tempo of resource development and exportation in Canada’s north. Ms. Grant made this point, arguing that destination shipping in Canada’s Arctic waters “will increase more rapidly as a result of the numerous mining projects scheduled to come on stream.” In drawing a similar conclusion, Mr. Boland used the specific example of the Mary River iron ore mine project that is scheduled to begin production at the northern end of Baffin Island in Nunavut in 2014, with the first ore being shipped in 2015. He told the Committee:

…when the Mary River mine project gets going, there will be two to three ships a week year-round operating in and out of the western Arctic. It's just an order of magnitude beyond what the coast guard has been handling with just a summer sealift, basically, until

127 Ibid.
128 Ibid
129 Ibid.
130 FAAE, Evidence, 29 November 2012.
right now. There's going to have to be a large magnitude of change to be able to regulate, monitor, and control the marine traffic in the Canadian Northwest Passage.  

Mr. Boland also compared the volume of exports expected from the Mary River project with what had been produced from the now-closed Nanisivik mine. That facility had required the only deep draft export port in Canada’s Arctic to export around 110,000 tonnes of materials every year, while he predicted that the Mary River mine project will eventually export “18 million tonnes a year,” underlining the point about the scale of activity that is due to come on line in Canada’s north. Indeed, in his appearance before the Committee, the President and Chief Executive Officer of the Baffinland Iron Mines Corporation, Tom Paddon, emphasized that the two-phased Mary River development will ultimately be a $5 billion project, the largest “currently under consideration” in Canada’s north.

Overall, while specific predictions may differ, there is a trend toward increased maritime activity, which Canada must address. Ms. Grant argued that regardless of whether increased shipping activity occurs in the Arctic in 10, 20 or 30 years, “now is the time to consider how this traffic should be monitored and controlled to protect the environment.” Both of these actions, which are related to the regulatory framework and the infrastructure that Canada and its Arctic partner nations need to put in place to manage increased maritime traffic, will be dealt with next.

A Polar Code?

Canada already has robust legislation in place that governs maritime traffic, safety and shipping standards in its Arctic waters. Perhaps the centrepiece of this legislative and regulatory regime is Canada’s Arctic Waters Pollution Prevention Act. For example, it mandates “zero discharge,” stipulating that “no person or ship shall deposit or permit the deposit of waste of any type in the arctic waters or in any place on the mainland or islands of the Canadian arctic under any conditions where the waste...may enter the arctic waters.” Ms. Kinney of Transport Canada told the Committee that this Act, which was first developed in 1970, “was much ahead of its time and probably still may be, to a large degree, the most comprehensive and rigorous set of requirements in the world for the Arctic.” In 2009, Canada extended the application of the Act to cover its full 200 nautical mile exclusive economic zone (EEZ).

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132 FAAE, Evidence, 28 February 2013.
133 FAAE, Evidence, 5 February 2013.
134 FAAE, Evidence, 29 November 2012.
135 For further information on Canadian transport acts and regulations that apply to the Arctic, see: Transport Canada, Acts and Regulations: Current Legislative Mandate.
137 FAAE, Evidence, 28 February 2013.
Notwithstanding this domestic framework, there is a growing awareness of the need for multilateral action to address the governance of shipping activities beyond Canada’s national jurisdiction, considering the predicted increase in maritime traffic in the wider Arctic, and the evolving composition of that traffic. Negotiations around a “polar code” (an “International Code of Safety for Ships Operating in Polar Waters”) for the Arctic and Antarctic are underway at the International Maritime Organization (IMO), which is the United Nations’ specialized agency responsible for the safety and security of shipping and the prevention of marine pollution by ships.\(^\text{138}\) The IMO currently has 170 member states.

Ms. Kinney explained that Canada’s laws and regulations apply to the 200 nautical-mile limit of its EZZ. The proposed polar code would apply to the high seas, outside of Canada’s national jurisdiction. According to the IMO, the polar code “would cover the full range of design, construction, equipment, operational, training, search and rescue and environmental protection matters relevant to ships operating in the inhospitable waters surrounding the two poles.”\(^\text{139}\) As Professor VanderZwaag explained, the idea is to create an instrument that is “polar-specific.”\(^\text{140}\) Voluntary guidelines for ships operating in polar waters were adopted by the IMO Assembly in 2009. These guidelines address areas that are “deemed necessary for consideration beyond existing requirements” imposed by the International Convention for the Prevention of Pollution from Ships (MARPOL Convention) and the International Convention for the Safety of Life at Sea (SOLAS Convention). The guidelines articulate why the polar environments necessitate careful attention and standards:

Ships operating in the Arctic and Antarctic environments are exposed to a number of unique risks. Poor weather conditions and the relative lack of good charts, communication systems and other navigational aids pose challenges for mariners. The remoteness of the areas makes rescue or clean-up operations difficult and costly. Cold temperatures may reduce the effectiveness of numerous components of the ship, ranging from deck machinery and emergency equipment to sea suctions. When ice is present, it can impose additional loads on the hull, propulsion system and appendages.\(^\text{141}\)

The voluntary guidelines therefore address navigation safety and pollution prevention in polar waters.\(^\text{142}\)

Ms. Stirk of DFAIT told the Committee that “Canada is pressing for a robust, mandatory polar code.”\(^\text{143}\) Canada is encouraging its partners within the Arctic Council to

\(^{138}\) See: International Maritime Organization (IMO), \textit{Frequently Asked Questions}.

\(^{139}\) IMO, \textit{“Shipping in polar waters.”}

\(^{140}\) FAAE, \textit{Evidence}, 19 March 2013.

\(^{141}\) IMO, \textit{Guidelines for Ships Operating in Polar Waters}, Resolution A.1024(26), adopted on 2 December 2009, Assembly, 26\textsuperscript{th} session.

\(^{142}\) Ibid.

\(^{143}\) FAAE, \textit{Evidence}, 20 November 2012.
approach these negotiations at the IMO “with a unified voice,” while also pushing for consensus around “the need for a strong international regime.”

Ms. Kinney noted that Canada is proposing that the polar code incorporate “many elements of our own regime for Arctic shipping that has been so successful for over 40 years.” She also commented, however, that while Canada will be “certainly pushing for the same level of stringent standards” as contained in its domestic legislation, given that the polar code is the subject of international negotiations, the standards that it will contain will be determined by all the state parties. In addition to these negotiations at the IMO, Canada is also proposing to look “at some voluntary guidelines with our colleagues at the Arctic Council, under the chairmanship of Canada.” In addition to this work, which is intended to address the broad range of shipping issues in the Arctic, Professor VanderZwaag also suggested that “Canada could be a leader” on the more specific maritime regulatory issue of “Arctic tourism guidelines.”

**Maritime Infrastructure**

Witnesses stressed that Canada needs maritime infrastructure in its Arctic. Such infrastructure facilitates commercial activity and is a key component of the government’s ability to ensure maritime safety and enforce environmental protection. While witnesses emphasized the general infrastructure needs in Canada’s north, many stressed that the country’s maritime infrastructure needs are the most acute. All of the factors and trends discussed in other sections of this report — shrinking ice, increased maritime traffic, and the need for Canada to monitor and enforce its jurisdiction over that traffic — indicate that investments in maritime facilities and resources are a priority. Mr. Funston compared the fairly significant investments that have been made in Canada’s on-shore community infrastructure over several decades in the north, including through building projects like schools and nursing stations, in comparison to the lack of investment that has taken place offshore. He told the Committee: “We weren’t prepared for the Arctic to become accessible at an ocean level, and that is a big sticker shock for our nation....”

There is currently only one deep-water port in Canadian Arctic territory, which is located in Nanisivik at the former mine site. (Exports from the Yukon go through the port in Skagway, Alaska.) Mr. Boland argued that resource projects of the type, scale and location of the Mary River iron mine “will require and will have to develop primarily port infrastructure, but also some roads, in order for the resource development exports to take place.” With these needs in mind, he recommended that Canada should be more

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145 Ibid.
146 Ibid.
147 Ibid.
148 FAAE, Evidence, 19 March 2013.
149 FAAE, Evidence, 6 December 2012.
150 FAAE, Evidence, 28 February 2013.
strategic in how it approaches its infrastructure projects, especially in light of the growing private sector resource development that is proceeding in the north. Using the example of large-scale projects such as the one planned for the Mary River mine, he commented,

Those large ships...going back and forth to Europe are empty coming in this direction. They will be carrying resupply for the mines year-round. They will be carrying fuel for the mines year-round. Should they not also be carrying community resupply year-round? …

There are ways that the governments could come in—not just the federal government, but the territorial governments as well—to take a broader look at what some of these infrastructure projects that are going to be privately financed might do to improve...the cost of doing business and living in the north, on a broader perspective than just the resource development project itself.\(^{151}\)

Mr. Boland thus recommended to the Committee that the government should look to enhance the synergies between public needs in the north and private investment, including through activities like joint planning, shared use and cost-sharing (i.e. public-private) partnerships. Such initiatives could identify aligned interests with the objective of lowering costs and increasing efficiencies associated with infrastructure development, which can be “prohibitively expensive” in the north. Mr. Boland argued that “multiple private and public sector needs can be met with a single multi-use facility.”\(^{152}\)

Beyond the fact that expanded maritime infrastructure is necessary for enhanced economic development in the Canadian north, the Committee also heard that, from the perspective of the wider circumpolar region, the existence of maritime infrastructure could be a key determining factor influencing which Arctic countries receive more global investment. Professor Whitney Lackenbauer framed the infrastructure issue as follows: "The basic question for Canada is, do we want to see the world come and use the Northwest Passage? Do we see benefits to Canadians and to northerners? Otherwise, if we do nothing, I happen to think that it's probably going to be bypassed."\(^{153}\)

Many observers have taken note of the comparatively robust infrastructure that is in place along Russia’s much more developed Northern Sea Route,\(^{154}\) which is also an easier route for vessels from a navigational perspective. Noting the system of transit fees and icebreaker services that Russia has put in place, Mr. Boland said that the “Russians are way ahead of us in terms of figuring out how to manage that and how to pay for it.”\(^{155}\)

In terms of other possible locations that could compete to be future maritime hubs in the

\(^{151}\) Ibid.

\(^{152}\) Ibid.

\(^{153}\) FAAE, Evidence, 22 November 2012.


\(^{155}\) FAAE, Evidence, 28 February 2013.
Arctic, it is possible that Iceland could look to develop itself in coming years as a key entry/exit point along the potential polar route.

Describing the level of infrastructure and related navigational support that is in place in Canada’s waters, Jody Thomas of the Canadian Coast Guard stated that only around 10% of Canada’s Arctic waters are “charted to modern standards.” The kind of navigational aids that many Canadians would be accustomed to seeing in more southern waterways such as the Great Lakes do not exist in Canada’s Arctic. However, she also emphasized at the same time that Canada’s Arctic waters should not be viewed in the same way as waterways in more southern areas given their breadth and remoteness and accessibility issues. In recognition of these factors, Ms. Thomas and Ms. Kinney from Transport Canada explained that Canada will be pursuing a strategic approach to Arctic navigation. Ms. Thomas told the Committee that their agencies,

…don’t think it is reasonable or feasible to think that we can chart [the Arctic] to the same standards as the south throughout, which is why we are pursuing a corridors approach, where we will have safe, predictable, transitable passages that are charted and the information is available to mariners so that they can safely transit, weather notwithstanding.156

The identification and development of strategic marine transportation corridors in Canada’s Arctic waters is intended to harness and deploy public resources in an effective manner. As Ms. Thomas explained, focusing Coast Guard and Transport Canada services “along key marine transportation corridors” can facilitate economic development in the north, while also providing “a predictable level of service and presence.”157 Other witnesses suggested that Canada should in fact consider enforcing a system of shipping or routing lanes in its Arctic waters, and not allow “free passage through any of the channels in the archipelago,” which could also assist with the protection of "ecologically and culturally significant areas."158

In addition to facilitating economic development projects, there are wider benefits to Canada that can come from additional investments in maritime infrastructure. Professor Byers noted that putting in place services in Canada’s Arctic waters would also enable it to address environmental protection concerns and non-traditional security threats, such as those related to potential vessel-bound smuggling or illegal immigration. The other important benefit relates to Canada’s exercise of sovereignty over its waters, which emphasizes its legal position. He noted that,

…the more we can get foreign shipping to accept our jurisdiction, the better off we will be. The best way to get foreign ships to accept our jurisdiction is to provide them with necessary services: to provide them with ports of refuge, to provide them with world-class

156 Ibid.
157 Ibid.
158 FAAE, Evidence, 19 March 2013, David Hik and David VanderZwaag.
charts, world-class weather forecasting, world-class ice forecasting, to provide them with world-class search and rescue—in other words, to make Canada an absolutely essential component of their shipping plans.159

The flip side of this argument could be that by not putting in place needed maritime infrastructure, Canada could invite concerns over its ability to deal with maritime activity in its area of jurisdiction from the United States, while also missing out on potential commercial activity. Ms. Grant praised the Canadian Coast Guard’s Northern Canada Vessel Traffic Services (NORDREG) zone, which is a mandatory reporting system for ship traffic in Canada’s Arctic waters. Since 2010, Canada has required that foreign and domestic vessels of a certain size report to the Coast Guard when travelling in Canadian Arctic waters.160 Vessels must file reports of their sailing plans before arriving in the NORDREG zone, a position report once they have entered the NORDREG zone and daily while underway in the zone, and a final report when they exit the zone.161 However, to return to the point above regarding enforcement, Ms. Grant also stated that “The only weakness in the system is Canada's ability, and dare I say inability, to apprehend those that are non-compliant.”162

Search and Rescue

The Committee learned of the significant search and rescue (SAR) requirements associated with Canada’s vast Arctic territory, and the growing need to have such capabilities in place, particularly as maritime traffic increases in the region. Witnesses emphasized that Canada’s current SAR capabilities are stretched, given the territory that must be covered and the potential range of incidents requiring a response.

Officials from the Canadian Coast Guard, the government agency responsible for maritime SAR activities in Canada’s Arctic, provided the Committee with concrete

159 FAAE, Evidence, 27 November 2012.

160 The mandatory NORDREG reporting regulations have, since 2010, applied to large vessels of 300 gross tonnage or more, those towing or pushing a vessel with a combined gross tonnage of 500 or more, vessels carrying a pollutant or dangerous goods as cargo, and vessels towing or pushing another vessel that is carrying such a pollutant or dangerous goods as cargo. Within Canada’s NORDREG zone, the Canadian Coast Guard monitors vessel movements, helps to screen “vessels for safety and environmental protection,” establishes a communications link with vessels for the purposes of emergency response, monitors the transportation of pollutants and dangerous goods, provides “up-to-date ice routing information and conditions,” facilitates the “provision of ice breaker services,” and provides “shipping notices related to the safety of navigation.” See: Transport Canada, Government of Canada Takes Action to Protect Canadian Arctic Waters, No. H078/10, 22 June 2010.

161 Vessels must also report any deviations from their filed sailing plan, and updated position reports if the vessel’s master becomes aware that: another vessel is in difficulty, there is an obstruction to navigation, an aid to navigation is not functioning properly or is damaged or missing, there are any ice or weather conditions hazardous to safe navigation, and if there are any pollutants noticed in the water. See: Northern Canada Vessel Traffic Services Zone Regulations, SOR/2010-127, current to 2013/03/04.

162 FAAE, Evidence, November 29, 2012. Laureen Kinney told the Committee that her department will be looking at the NORDREG technology to see how it “should perhaps be updated.” See: FAAE, Evidence, 28 February 2013.
examples of the demands that can be placed on Canada’s SAR architecture in the north, and the challenges involved in any response. Ms. Thomas described two incidents from 2010 involving grounded vessels in Canada’s Arctic waters, one a motor transport, the other an English cruise ship. Ms. Thomas indicated that, when the latter grounded,

The Canadian Coast Guard ship *Amundsen* was the closest available coast guard vessel to respond. It was 511 nautical miles away doing scientific experiments and at the time of the grounding it was 42 hours of transit to reach the site. Fortunately, there were no serious injuries nor any serious marine pollution from this grounding, but we were lucky.\(^{163}\)

Professor Byers underscored the urgency of strengthening Canada’s search and rescue capacity by emphasizing the potential magnitude of the challenges that could be involved in future incidents in Canada’s Arctic:

Yes, the search and rescue challenges are increasing almost exponentially. Yes, there are more than 100,000 people who fly over the Canadian Arctic each day on flights from Los Angeles to London or New York to Beijing. At some stage, unfortunately, there’s a statistical risk that an accident will occur. If one of those planes were to crash-land in an area remote from any community in the middle of the winter, it would not be just an issue of the people onboard—and one would feel terrible for them in that situation—but also of the enormous embarrassment to Canada as we scrambled to respond with search and rescue helicopters based on Vancouver Island and in Nova Scotia to a situation that would be almost half a world away, many thousands of kilometres.\(^{164}\)

Ed Zebedee, Director of Protection Services with the Government of Nunavut, similarly told the Committee that in the Arctic: “A major emergency or environmental disaster is waiting to happen.”\(^{165}\) With respect to the Canadian government’s current ability to respond to a major event in the Arctic, Mr. Zebedee stated:

While the Canadian Forces can respond with 11 hours to an incident anywhere in the Canadian Arctic, that response will likely be a Hercules aircraft with SAR technicians. They will and have given their lives to assist those in need, but their efforts could be futile without the ability to evacuate survivors in a reasonable time.\(^{166}\)

Discussing the growing cruise ship industry in the Arctic, Sara French, Program Director of the Munk-Gordon Arctic Security Program, told the Committee:

Increasingly as the ice recedes you’re seeing cruise ships going further and further off the charted routes to find those unique experiences for their passengers, the majority of whom are older and can afford these very expensive cruises. That’s a great economic benefit to the communities. The communities are welcoming them with open arms.


\(^{166}\) Ibid.
At the same time we need to understand that these ships are in Canadian waters. What is our capacity to respond if the unthinkable happens?\textsuperscript{167}

Professor Byers argued that the Government of Canada now needs to deliver on promised infrastructure and capabilities (e.g. Arctic off-shore patrol ships; fixed-wing SAR aircraft), noting that if a “massive, tragic accident occurs and we’re not ready, it won’t impact on our sovereignty, but it will impact on our credibility as an Arctic nation.”\textsuperscript{168}

As noted earlier, there is a regional framework in place to coordinate and strengthen search and rescue responses. Arctic Council states finalized the Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic in May 2011. Ms. French told the Committee that one of the areas where there is the strongest agreement within the Arctic Council is on the need for states to work now towards effective implementation of this binding agreement.

State parties are obligated to “promote the establishment, operation and maintenance of an adequate and effective search and rescue capability within” their area, as established in geographic terms in the agreement’s annex. Such operations are to be conducted in accordance with the laws and regulations of the relevant state party. Under the agreement, if a state party “receives information that any person is, or appears to be, in distress,” then that party is obligated to “take urgent steps to ensure that the necessary assistance is provided.” States are also obligated to notify one another as soon as possible if they become aware that a person, vessel or aircraft is in distress in another state’s area. They can request assistance from one another, and are obligated to respond promptly in indicating whether such assistance can be provided. Parties must ensure that assistance is provided to any person in distress, “regardless of the nationality or status of such a person or the circumstances in which that person is found…” With respect to funding, unless otherwise agreed, each state must “bear its own costs deriving from its implementation of [the] Agreement.” However, the agreement also states that its implementation is “subject to the availability of relevant resources.”\textsuperscript{169}

Mr. Zebedee argued that this agreement should be “applauded.” He also noted, however, that “a commitment of substantial resources to both people and equipment is required to meet the intent detailed in the agreement.”\textsuperscript{170} William MacKay, Director of Intergovernmental Relations in the Government of Nunavut, also expressed concern over the need for infrastructure to be in place to implement the agreement.\textsuperscript{171}

\begin{itemize}
\item\textsuperscript{167} FAAE, \textit{Evidence}, 29 November 2012.
\item\textsuperscript{168} FAAE, \textit{Evidence}, 27 November 2012.
\item\textsuperscript{169} Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic, 2011.
\item\textsuperscript{170} FAAE, \textit{Evidence}, 26 February 2013.
\item\textsuperscript{171} Ibid.
\end{itemize}
The challenges associated with search and rescue preparedness and operations are to some degree connected to more general issues of required infrastructure expansion in Canada’s north. For example, Mr. Zebedee underlined the fact that, as discussed above, there is currently only one deep-water port in Canadian Arctic territory. In the absence of such docking facilities, he argued that “even with a heavy-class icebreaker, emergency supplies could not be landed in communities in the winter” (in the case of northern Canadian communities that do not have runways or have short runways, and would thus be dependent on sealift supplies that can only be delivered in the summer months). In addition to suggesting that Arctic communities could be equipped and supported to assume the search and rescue role in Canada’s Arctic, he recommended that Canada needed to develop “a national search and rescue policy,” and suggested that a “long-term transportation strategy, and the financial backing to execute the plan” also needed to be considered for the north. Throughout his presentation, Mr. Zebedee emphasized that port infrastructure is “critical” for Canada’s Arctic.

Economic Development — Enhancing Prosperity in Canada’s North and the Region

As was noted, officials from DFAIT informed the Committee that the theme that will guide Canada’s upcoming tenure as Arctic Council chair is: “development for the people of the north.” The government’s first and third sub-themes — responsible Arctic resource development, and sustainable circumpolar communities — are also particularly relevant to the issues addressed in this section of the report, which discusses economic development and prosperity. Witnesses emphasized that this is a time of significant economic opportunities in Canada’s north. Many pointed to the natural resource development projects that are underway and planned in Canada’s Arctic territory, and the impact that such investments will have on northern prosperity. Witnesses also discussed the challenges that need to be overcome in order to enable northern communities to capitalize on these opportunities and to realize this prosperity, the two most important of which are required improvements in northern infrastructure and access to education.

The economic development potential of Canada’s north, and the many new commercial projects that are already underway, were emphasized by several witnesses, including Danielle Labonté of Aboriginal Affairs and Northern Development Canada. She noted:

Canada’s north has tremendous resource potential. For example, about 13% of the world’s undiscovered oil and 30% of undiscovered gas lie under the Arctic seabed. Fifteen years ago Canada was not a diamond producer, and now we’re a global leader.

172 Ibid.
173 Ibid.
That gives you a sense of the scale of opportunity and how quickly, with the right circumstances, fortunes can change.\textsuperscript{175}

Mitch Bloom, Vice-President in the Canadian Northern Economic Development Agency, echoed this assessment, telling the Committee:

The scale of resource development in this region is reaching unprecedented levels. World demand and commodity prices have brought global attention to the north’s rich supply of minerals, metals, oil and gas. Emerging markets around the world provide Canada with an opportunity to responsibly develop our natural resources for the benefit of all Canadians.\textsuperscript{176}

Mr. Bloom told the Committee that some 21 resource and regional infrastructure projects are currently in various stages of the regulatory process in Canada’s north, and a further 8 projects “are set to potentially enter the environmental assessment phase in the coming 18 months.” These projects will "represent over $23 billion in capital investment" in Canada’s north once they are in production, all of which is being generated by the private sector. Mr. Bloom made the overall argument that “this is the time for Canada’s north and for its peoples. We believe that success will be a product of both domestic and international efforts.”\textsuperscript{177}

The importance of pursuing economic development is the north in a manner that is well-planned, inclusive and environmentally sustainable was highlighted by several witnesses, including Duane Smith, President of the Inuit Circumpolar Council (Canada). He told the Committee that Inuit communities

…welcome development, but at a pace that can be managed in such a way that it has minimal effect on the environment and the ecosystem within that area, and at the same time remediating as it proceeds, so that we're also cleaning up behind ourselves at the same time as we’re developing.\textsuperscript{178}

Similarly James Arreak, Chief Executive Officer of Nunavut Tunngavik Inc., which works to implement the 1993 Nunavut Land Claims Agreement, stated in the context of this work that:

One of the key and emerging areas in the north is the development of mining potential in the north, and that's an exciting area. The socio-economic transition that needs to take place right now with our people must fill a huge gap. This is where we need to engage

\footnotesize\textsuperscript{175} FAAE, \textit{Evidence}, 7 March 2013.\textsuperscript{176} Ibid.\textsuperscript{177} Ibid. Another example of the economic potential of the north relates to the "unique and highly valued arts sector" in Nunavut, a sector which involves an estimated 10% of the population. Representatives of the Nunavut Arts and Crafts Association told the Committee that Inuit art has and continues to play an important role in the economy of that territory. They argued that extra support could help expand the international and domestic markets for this industry even further. See: FAAE, \textit{Evidence}, 26 March 2013.\textsuperscript{178} FAAE, \textit{Evidence}, 5 March 2013.
the government, to help us prepare meaningfully and properly and position ourselves so that we can take advantage of the opportunities that come with mineral development.\(^{179}\)

Drawing the connection between northern development and sovereignty, Terry Hayden, Acting Deputy Minister of Economic Development in the Government of Yukon, argued:

Northern development means actively occupying the north with sustainable, economically thriving communities of healthy, active, community-minded citizens. Sustainable economic development in northern Canada benefits all Canadians.\(^{180}\)

In her appearance, Ms. Grant articulated what in her view will be the central issue facing Arctic communities going forward. She said: “Resource opportunities and turning those resource opportunities into sustainable development for the people who are living there is going to be the basic challenge.”\(^{181}\)

Witnesses noted that sustainable development is a complex and multi-faceted process. One of many factors that can help to facilitate it is informed decision-making and an approach that considers development strategies from a long-term perspective, rather than one that is narrowly focused on the present. In his appearance before the Committee, David Breukelman, President of the Canadian company Gedex Inc., underscored the importance of technology and full information — generated through initiatives such as his company’s airborne sub-surface geological mapping — to economic development in Canada’s north. Such technologies can be harnessed to assist economic decision-making.\(^{182}\) He noted that when governments have better information "on where hubs of infrastructure should lie or could lie," they can plan public investments, particularly with respect to infrastructure projects, "more effectively." Mr. Breukelman explained that his company’s technology allows for a more efficient and effective deployment of public and commercial resources in what is a vast geography, terrain where operations are inherently expensive. The mapping services offered by Gedex can determine with much greater accuracy where resource development should be focused, thus maximizing the economic value from the exploitation of a geological resource. Such activities are also beneficial from an environmental perspective because they "are non-intrusive flights," and they do not involve "seismic activities." Mr. Breukelman also noted that detailed knowledge of resource endowments can help first nations communities, not only from the perspective of job creation and related growth, but also with respect to the ability of those communities "to plan the evolution of their social infrastructure."\(^{183}\)
Another example of the importance of technology to well-planned development was provided by Stephen Mooney, Director of Cold Climate Innovation at the Yukon Research Centre. This project is “focused on the development, commercialization, and export of sustainable cold climate technologies and related solutions for northern regions around the world.” Cold Climate Innovation is based on a partnership between applied scientists, industry, and government, with a desire by all of these partners to address “cold climate and technical issues affecting northerners,” thus stimulating economic development in the Yukon. Mr. Mooney put forward the argument that “innovation is the biggest opportunity space in the Arctic economies.” With respect to the link between such initiatives and Canada’s theme and sub-themes for its Arctic Council chairmanship, Mr. Mooney also noted that his Centre could “help showcase Canadian expertise and can collaborate with other circumpolar communities on an exchange of tools and technologies to prepare for a changing Arctic.”

Among the key areas where innovative practices and technology will likely be needed is infrastructure. Witnesses stressed again and again the underlying importance of transportation, communications and community infrastructure to economic development in the north. While noting that each territorial economy is unique and faces specific challenges, Yukon government official Terry Hayden told the Committee: “The development of these regional economies is how we manifest Canada’s Arctic foreign policy to the world, and the development of Yukon’s infrastructure is critical to the expansion of Yukon’s economy.” He also emphasized that such investments must be designed so as to meet both the short and the long-term need of northerners.

After noting the importance of its “resource endowment” to the growth and prosperity of the Northwest Territories, Mr. Bevan stated that his government “recognizes the importance of strategic investments in infrastructure to help achieve greater economic and social development.” He informed the Committee of important projects to this effect, such as the Deh Cho Bridge, which will provide “year-round land access between Yellowknife and the south,” and the proposed “Mackenzie Valley fibre optic link,” as well as the “construction of the Mackenzie Valley Highway to Tuktoyaktuk,” which will be Canada’s “first year-round highway to the Arctic Ocean.” Regarding this new highway, Mr. Bevan noted that in addition to the economic development benefits that it will generate, it will also “improve community access and mobility thereby reinforcing Canadian sovereignty objectives.”

Anja Jeffrey, a former Danish foreign service officer who is now the Director of the Conference Board of Canada’s Centre for the North, summarized the overarching issue in stating that “Infrastructure gaps are one of the biggest threats to the development of the north.” She also made the same observation as Kells Boland to the effect that currently in

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184 FAAE, Evidence, 11 December 2012.
185 FAAE, Evidence, 26 February 2013.
186 Ibid.
the Canadian north, “industry is putting in most of the infrastructure needed to bring natural resources out.”187 Thus, the need to identify and benefit from aligned public-private interests, joint planning, and “common user facilities,”188 as discussed in this report’s analysis of required maritime infrastructure, is equally relevant to overall economic development challenges in the north. The dividends from such investments and strategic cooperation could be substantial for Canada and its northern communities. As Mr. Zebedee argued in reference to the mineral and other natural resources that lie in Canada’s Arctic territory, “the economic development coming into the north in the next 15 to 20 years is going to pay back any infrastructure building.” He noted, however, that, “To develop these, you’re going to need that transportation system.”189

It appears that work remains to be done to identify and strengthen the alignment of private and public sector interests and activities. Different mechanisms can be considered that could advance cooperation and the sharing of information and best practices related to economic development. Tom Paddon, President and Chief Executive Officer of the Baffinland Iron Mines Corporation, argued that

…domestically we have yet to realize the full potential of what can be achieved by the natural alignment that is possible among industry, the national government, and regional interests, particularly aboriginal interests. There is huge potential for mutual success. Development, when it is done with that in mind, will ultimately be successful on a number of fronts.190

Based on this idea of aligned interests, Mr. Paddon recommended the creation at the regional level of a "multi-sectoral transnational Arctic business organization, an Arctic business council." He argued that direct engagement between such a grouping and the Arctic Council would be the preferred model, suggesting that the Arctic Council could benefit from “a business-specific consideration, given the importance of what is happening in the north and the need for it to be carefully considered by the member states of the Arctic Council.” A multi-sectoral body, Mr. Paddon argued, could facilitate the identification of “common standards, common expectations about appropriate behaviour, and some sharing of best practices.”191

Some witnesses emphasized the diversity of the Arctic in their presentations to the Committee, given the fairly substantial differences that exist in population distribution, community size and levels of industrialization in various Arctic countries, which means that economic and social development challenges are not uniform across the circumpolar region. Russia is often cited as a key example, given the number and size of its northern

187 FAAE, Evidence, 6 December 2012.
188 FAAE, Evidence, 28 February 2013. Testimony of Kells Boland.
189 FAAE, Evidence, 26 February 2013.
190 FAAE, Evidence, 5 February 2013.
191 Ibid.
communities, including Murmansk, which has a population of over 300,000. Sara French also noted that "Russia receives about 60% of its GNP from its Arctic territories."\(^{192}\)

Nevertheless, Mr. Zebedee argued that it would be helpful to learn how “other Arctic countries have dealt with resources and the lessons they’ve learned.” He noted that, “Resource development in the Arctic is difficult, so to hear from any country with some expertise in that area would be welcome.”\(^{193}\) While noting that the Government of Nunavut already shares best practices with Greenland on an ad hoc basis, Mr. MacKay stated that some form “of permanent structure would be useful in terms of economic development.”\(^{194}\)

For his part, Mr. Bevan told the Committee that there are shared challenges in the circumpolar region and opportunities to share knowledge and experiences:

> The Government of the Northwest Territories shares many similarities and challenges with our circumpolar neighbours, from sustainable communities and infrastructure to climate change. As a territory we are interested in sharing our innovations with the circumpolar world and learning from others about their innovations. It is through this collaboration and our experiences living and working in the north that the Government of the Northwest Territories and its residents can help contribute to advance Canada’s efforts around its Arctic foreign policy.\(^{195}\)

When asked about the idea of a circumpolar business forum, Karen Barnes, President of Yukon College, said it would be “essential.” As one specific example of a potential initiative that could harness the experiences of businesses and be regional in scope, Mr. Paddon noted the “enormous amount of research that companies are conducting as a result of environmental assessments, environmental effects monitoring, and socio-economics effects monitoring” in northern areas. All of this knowledge could be shared “in a collective and collaborative manner rather than simply in the more regional pockets in which it’s currently contained.”\(^{196}\) Dr. Barnes also made the general observation that in the context of the Arctic region, Canada can in turn look “to other countries to find examples of how northern communities have created sustainable businesses and enterprise opportunities to keep northerners in their communities while maintaining healthy lifestyles and contributing to meaningful employment.”\(^{197}\)

**Northern Resiliency and the Human Dimensions of the Arctic**

As part of the overall theme and sub-themes it has announced for its Arctic Council chairmanship, Canada can facilitate discussions among circumpolar countries regarding

\(^{194}\) Ibid.
\(^{195}\) Ibid.
the critical issues facing northern communities and the key determinants of their viability. In relation to these issues, some witnesses cautioned the Committee that it was important to distinguish between domestic and foreign policy concerns and priorities, and to recognize that the Arctic Council is a regional organization that is not suited to dealing with issues that are specific to any particular state. However, in many issue areas and processes — particularly sustainable development — there are few clear boundaries between domestic and foreign policy. Therefore, pursuing initiatives designed to address challenges at the national level, and also common ones at the regional level, should not be seen as mutually exclusive. The two levels of policy are not only connected, they also influence and strengthen one another.

Building on its findings in relation to economic development, the Committee is of the opinion, as stated above, that during Canada’s time as the Arctic Council Chair, and beyond, member states and permanent participants will be able to share best practices related to the issues, challenges and opportunities that are associated with sustainable development in the circumpolar region, and common to the region’s countries. It is also important to underscore that the on-going work of the Arctic Council, including scientific research and technical work conducted through its six working groups, will continue under Canada’s chairmanship. This is equally true with respect to broader regional initiatives that will need to be pursued by Canada and the Arctic Council to tackle important challenges that can only be addressed multilaterally, such as maritime traffic in the Central Arctic Ocean, oil spill response, and fisheries management, all of which are addressed in other sections of this report.

Connecting Canada’s Arctic Council chairmanship with northern development issues, witnesses emphasized the importance of Canada taking a people-centred approach to its domestic and foreign policies in the Arctic. To be successful, both must meaningfully incorporate the perspectives and the priorities of the people who live in, build and serve as the stewards of the Canadian Arctic. Strong, prosperous and resilient communities in Canada’s Arctic provide the bedrock of Canada’s Arctic foreign policy.

In keeping with the idea of a people-centred Arctic foreign policy, Mr. Funston emphasized the human dimensions of the region in his appearance before the Committee. He argued that it is critical that the Arctic be understood through this lens and that Canada’s approach to the Arctic be predicated on this framework. In his words:

That's why I think we hear so much talk about the Arctic voice in terms of foreign policy. It's not because statecraft is talked about on the streets of Tuktoyaktuk on a daily basis. It's because very often when we deal with the Arctic, we forget that people live there. We tend to look at it as a frontier, which means we're going there to get something, or we're going through to get to southern destination points, or we think of it as a laboratory, or we think of it as a big wilderness, a big park that we can preserve by drawing lines around it. But most importantly... it's a homeland. It's where people live.198

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198 FAAE, Evidence, 6 December 2012.
Anja Jeffrey, Director of the Conference Board of Canada’s Centre for the North, also focused her remarks and recommendations on these themes. In so doing, she made an overarching argument regarding the connection between domestic challenges and foreign policy in the context of the circumpolar region. Speaking as someone who previously served in the foreign service of another Arctic state, and who now conducts research in the Canadian north in collaboration with indigenous groups, businesses, and other stakeholders, she told the Committee:

All our research consistently points to the fact that resilient and thriving northern communities are the key to unlocking the tremendous economic potential of the north and to moving the northern agenda forward. ... [N]ortherners want to live in secure, prosperous, and self-reliant communities. There is an obvious causal link: resilient communities equal an economically sustainable Arctic region, equal a robust Arctic foreign policy based on the inherent strength of northerners.\footnote{Ibid.}

Ms. Jeffrey also drew a connection between resilient communities and Canada’s Arctic sovereignty. She remarked that, “If people move away because of lack of economic opportunities or dismal social conditions, we cannot ensure consistent monitoring of our sovereign territory.” She went on to argue that “if we do not invest in the people, then I don’t think we have a viable Arctic.” Her overall message to the Committee was that “The Arctic Council is about international issues, but international issues start at home. They’re formulated out of domestic policy-making.”\footnote{Ibid.} Economic development is a key element of viable communities; therefore, efforts to strengthen resiliency and to advance northern prosperity must be pursued hand in hand.

A number of witnesses pointed to the importance of addressing educational needs, access and attainment in Canada's north as a key component of building resiliency and the conditions that can enable prosperity in northern communities. They also identified the connections between education and skills development issues in Canada's north and the wider circumpolar community, noting the possibility for enhanced regional cooperation and knowledge transfer in this area.

As the backdrop to the Canadian context on this issue, Mr. Bloom commented that the ultimate success of economic development projects in the north will depend “on a labour force with the right skills and training.” While noting that the Canadian Northern Economic Development Agency launched a Northern Adult Basic Education Program in February 2012, Mr. Bloom pointed out that, “high school completion rates in the north are atrocious.”\footnote{FAAE, Evidence, 7 March 2013.} Geoff Green of the Students on Ice Foundation informed the Committee that “75% of Inuit youth are not graduating from high school; many don't attend school; and 56% of the Inuit population are under the age of 25.”\footnote{Ibid.} These statistics are linked to the...
need for thriving and resilient communities in the north. Mr. Green argued that “Sustainable, healthy, prosperous, and well-educated northern communities must be a pillar and priority in our Arctic policies.”

Witnesses noted that government initiatives targeting the education sector in the north need to strike a balanced approach to ensure that they are addressing basic education needs and higher learning. Regarding the latter issue, a number of witnesses, including Greg Poelzer, Director of the International Centre for Northern Governance and Development at the University of Saskatchewan, pointed out that "Canada is the only country of the Arctic eight that doesn’t have a university in its Arctic region..." On the question of the virtual University of the Arctic (UArctic), Bernard Funston, Chair of the Canadian Polar Commission, described it as a “very interesting initiative.” UArctic is a “cooperative network of universities, colleges, and other organizations committed to higher education and research in the North,” which was begun in the late 1990s. Mr. Funston told the Committee:

They're trying to come up with curricula that are relevant to northerners, and to allow people, through Internet capabilities, to actually study in their resident communities without needing to go south if they don't want to.

It has a lot of challenges in terms of the cost, of course, and I think that's where we withdrew some funding in 2010. I would love to see it back on its feet.

For her part, the comments made by Dr. Karen Barnes, President of Yukon College, suggested that the issue is not whether UArctic represents a valuable approach, it is rather a question of the allocation of limited resources and the need to build educational capacity in Canada’s north. She explained:

I've never said that it wasn't important. What I said was that with limited resources I would prefer to build our colleges to provide better and more options for students in the north. However, what I've always said is that the value of UArctic is the network of professionals and academics across the circumpolar north, and I still support that strongly.

Witnesses underscored the need for broad-based skills, capacity, and leadership-building initiatives in the north. They argued that these programs need to be physically based in the north, and designed for the people of the north so as to meet the specific economic, environmental and governance challenges and opportunities that exist in the north. Mr. Poelzer told the Committee that, with respect to such capacity issues,

203 Ibid.
204 Ibid.
205 UArctic, About UArctic.
206 FAAE, Evidence, 6 December 2012.
207 FAAE, Evidence, 11 December 2012.
...everything from high school completion to vocational training is critically important, and university is part of it, of course. Those kinds of skills and research should be based in the north, driven by northerners, for northerners, and be appropriate for northern communities, economies, and so on.\textsuperscript{208}

He used the concrete example of the University of Northern British Columbia to make this point about leadership and skills capacity programs that are structured so that the young people who acquire them remain in their local communities. That region of British Columbia had “had the worst post-secondary participation rate 20 years ago,” until the university was established, after which some 70\% of the students who graduate from the institution remain in the north of the province.\textsuperscript{209}

Dr. Barnes told the Committee of the programs, including bachelor of sciences degrees, now being delivered at her institution in conjunction with the University of Alberta, which will soon contribute to “northern youths from northern communities conducting research and finding answers for the north in the north.” Yukon College is also working to develop educational capacity and expertise in the area of first nations northern governance. This issue is another example of one that has important ramifications for communities across the circumpolar region “as they grapple with issues such as environmental protection, resource development, food security, and, most importantly, how to build a satisfying and fruitful relationship with other governments locally, nationally, and internationally to meet development goals.”\textsuperscript{210} Dr. Barnes put forward the broad argument to the Committee that,

Access to high-quality higher learning in the north by northerners is a circumpolar issue.

Labour mobility and workforce development are very real concerns for all northerners. As resource development continues, attracting and retaining the highly qualified people required to conduct exploration geoscience, environmental monitoring and remediation, and mine site development become increasingly challenging. Working together across the circumpolar north to share the expertise and curriculum will produce a considerable advantage and cost savings.\textsuperscript{211}

Thus, as part of its efforts to enhance sustainable economic development in the north and its desire to share and cultivate best practices in this area during its upcoming chairmanship of the Arctic Council, Canada must devote attention to national and circumpolar education, governance training and skills development issues. It should also work with its Arctic Council partners to do so, with the overall objective of realizing northern resiliency and prosperity.

\begin{footnotes}
\item[208] FAAE, \textit{Evidence}, 7 March 2013.
\item[209] Ibid.
\item[211] Ibid.
\end{footnotes}
Strengthening the Arctic Council and Regional Cooperation

The Permanent Participants

Witnesses agreed that a key element in the Arctic Council’s success has been its inclusion of six indigenous peoples’ organizations as permanent participants. At the same time, however, a number of witnesses — including the president of the Inuit Circumpolar Council (Canada), Duane Smith — told the Committee that more needs to be done by all the Arctic Council states to allow the permanent participants to participate fully and meaningfully in the ever-expanding and often technical work carried out by the council.

Indigenous people represent only 500,000 of the 4 million who live in the Arctic region, and particular indigenous peoples often live in more than one Arctic state. Some 155,000 Inuit people, for example, live in four countries — Canada, Denmark (Greenland), the United States (Alaska) and Russia — throughout the circumpolar Arctic. They are represented internationally by the Inuit Circumpolar Council (ICC), which has four national branches. The Canadian branch of the ICC will assume the rotating chairmanship of the organization from 2014–2018.

The Ottawa Declaration that established the Arctic Council in 1996 articulated the envisioned role of the permanent participants in the work of the Council. It stated: “The category of permanent participation is created to provide for active participation and full consultation with the Arctic indigenous representatives within the Arctic Council.” While three specific indigenous peoples’ organizations were named as permanent participants at that time, by 2000, the number had doubled to six:

- Aleut International Association;
- Arctic Athabaskan Council;
- Inuit Circumpolar Council;
- Gwich’in Council International;
- Russian Association of Indigenous Peoples of the North (RAIPON); and
- Saami Council.

212 Declaration on the Establishment of the Arctic Council, available at Foreign Affairs and International Trade Canada.
213 Arctic Council, “Permanent Participants.”
All of these organizations, with the exception of RAIPON, represent indigenous peoples from two or more states. Three of these groups have offices in Canada: the ICC (Canada), the Gwich’in Council International and the Arctic Athabaskan Council.

The Arctic Council has maintained the Indigenous Peoples’ Secretariat, which had originally been established under the AEPS, to support the permanent participants.\textsuperscript{214} As with other areas of the Council’s work, funding has been provided by Arctic states on a voluntary basis. Ms. Stirk told the Committee that DFAIT provides some funding to support the Canadian-based permanent participant organizations in their work at the Arctic Council.\textsuperscript{215} Terry Fenge, who has long been active in work related to indigenous peoples and the Arctic, told the Committee that while the Government of Canada has been more helpful than most Arctic states in this regard, the amount of money involved is insufficient to address the capacity issues and funding needs that exist.\textsuperscript{216}

At the May 2011 Arctic Council ministerial meeting in Nuuk, Greenland, it was announced that the permanent participants would review the role of the Indigenous Peoples’ Secretariat, including the feasibility of integrating it within the new Arctic Council Secretariat. Council members would also “develop recommendations on strengthening of the services provided to [permanent participant] organizations.”\textsuperscript{217} The Nuuk Declaration also stated that ministers:

Reiterate the need to finance circumpolar cooperation, as well as the importance of providing adequate funding to Permanent Participants to support their preparations for, and participation in, the Arctic Council, the working groups, task forces and Arctic Council projects …\textsuperscript{218}

Witnesses before the Committee underlined the valuable contribution that permanent participants have brought to the work of the Arctic Council. Jillian Stirk of DFAIT told the Committee that,

…the permanent participants play an extremely important role in the Arctic Council and on northern issues in general. We certainly look to them as a valuable source of advice and input on a whole range of issues facing the north. I think their participation has been actually critical to the success of the Arctic Council. In many respects it makes it quite a unique organization; you have states and civil society organizations, like the permanent

participants, sitting around the table together at the international organization dealing with the issues that of course affect these groups directly. 219

Ms. French noted that the incorporation of the permanent participants in the work of the Arctic Council “finds its origins here in Canada. This accomplishment should be celebrated.” 220

For his part, Mr. Smith noted that while the permanent participants do not have voting rights at the Arctic Council, its structure allows his organization to “sit right at the table and take part in an advisory role in the discussions and the deliberations that take place among the eight primary Arctic states.” 221 When asked how effective this mechanism has been in ensuring that indigenous perspectives are reflected in the work of the Arctic Council, he said that,

It varies among the permanent participants. The Inuit Circumpolar Council was created long before the Arctic Council to ensure that the Inuit view and the Inuit rights were respected. This organization was put in place to do that.

…within the Arctic Council framework…it has limited success, I guess I would say, primarily because of the lack of capacity within the permanent participants to adequately be involved in various activities where they should be, and also recognizing that even the states sometimes have limited capacity on some of these issues.

…it’s as much as we can do within that structure. If we had more capacity, then I think much more could be achieved within the work of the Arctic Council. 222

Mr. Smith added that organizational capacity could be enhanced through the addition of “a few technical people” to help ensure that the views of the ICC are being considered within the activities of the Council's working groups. He reminded the Committee that the commitment to ensure that such support is provided is the responsibility of all the Arctic states, and not just Canada or the United States. He added, however, that these issues have yet to be resolved effectively: “It's a process that's been under discussion for many years within the Arctic Council. The senior Arctic officials haven't been able to come up with a structure or formula to adequately address permanent participant involvement.” 223

Dr. Hik told the Committee that, as a result of a lack of sufficient funding and related capacity limitations, the permanent participants are hard-pressed to be involved effectively in the Arctic Council's growing basket of activities, studies and mandates. 224 He stated that

219 FAAA, Evidence, 20 November 2012.
220 FAAA, Evidence, 29 November 2012.
221 FAAA, Evidence, 5 March 2013.
222 Ibid.
223 Ibid.
224 FAAA, Evidence, 19 March 2013.
in at least one case the ICC had represented the other five permanent participant organizations in a technical Arctic Council body, reporting back to them on its work. John Crump of Grid-Arendal, who served as executive secretary of the Arctic Council Indigenous Peoples’ Secretariat for several years, stated that the permanent participants had long suffered from the limitations and constraints described here. While agreeing that permanent participants could decide to represent each other on a case-by-case basis, he argued that they are not and should not be considered as non-governmental organizations (NGOs):

"They're not lobby groups. They represent people with sovereign rights, regardless of what the particular arrangements are in each country. That's very clear and they will cite the UN declaration on indigenous rights to back up their arguments, all the time." 

Ms. French stressed that Arctic Council states should not lose sight of the importance of the permanent participants in the work of the Council. She specified that:

"...the effectiveness of these organizations to contribute to the Council and to amplify the voices of those who live in the north is often challenged by a lack of resources. Permanent participants often have only one full-time staff member who is responsible for all of the organization's activities, including participating in meetings, reviewing reports, consulting with their communities, accounting, fundraising, and even travel logistics. As a result, they are not, in many cases, able to participate as fully as they would like in the council's proceedings." 

On this basis, Ms. French recommended that Canada should propose a new funding mechanism to enable the permanent participants to contribute meaningfully to all of the Arctic Council’s working groups and proceedings.

This general idea of more robust, consistent and predictable support from Arctic Council member states is, as noted, not a new one. Indeed, Mr. Crump told the Committee that:

"Ten years ago, with the support of Canada's senior Arctic official and the Icelandic Arctic Council chair, we developed a proposal that would have provided financial support for the permanent participants in an ongoing way. It wasn't much money, but unfortunately the rhetoric of support, which is often effusive, wasn't matched by any commitment. Canada now has an opportunity to encourage all Arctic states to provide the necessary sustainable funding in an ongoing way." 

In addition to this need to support the permanent participants in the day-to-day work of the Arctic Council, Ms. French and others emphasized the importance of consistent political support. In a troubling development, November 2012 saw the Russian Ministry of Justice suspend RAIPON for three months, arguing that it did not comply with necessary Russian

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225 Ibid.
226 FAAE, Evidence, 29 November 2012.
227 FAAE, Evidence, 19 March 2013.
laws. All senior Arctic officials — including Russia’s — and permanent participant heads of delegation quickly expressed concern over this action, which Ms. French argued resulted from a dispute "over the extraction of resources in RAIPON's traditional territory."\(^{228}\) RAIPON was allowed to resume operations in March 2013.\(^ {229}\)

**The Role of Non-Arctic States**

As noted earlier, the past several years have seen increased interest in the Arctic region on the part of non-Arctic states, including China, Japan and South Korea. While these states may seem at first glance to have little stake in the region, James Manicom of the Centre for International Governance Innovation explained to the Committee that “Their interests are consistent with those of what you would call maritime states. They are predominantly commercial in orientation. They are export-oriented economies, so they obviously have an interest in the savings associated with Arctic shipping." He added that “In a non-commercial sense, their main interest is climate change and climate change science.”\(^ {230}\)

An increased interest in the Arctic has naturally led states such as China and international actors such as the European Union to show more interest in the work of the Arctic Council. In the short term, the issue that confronts member states such as Canada is whether to grant these states and entities a somewhat enhanced status at the council by admitting them as permanent observers. The Ottawa Declaration that established the Arctic Council indicates that observer status is open to non-Arctic states; intergovernmental and inter-parliamentary organizations, global and regional; and, NGOs “that the Council determines can contribute to its work.”\(^ {231}\) There are currently some 26 accredited observers to the Arctic Council: 6 non-Arctic states and 20 non-governmental and intergovernmental organizations.\(^ {232}\) As developments such as globalization and climate change have increased the interest of non-Arctic states and others in the work of the Council, some have already participated as observers on an ad hoc basis.

A number of witnesses argued that Canada should advocate granting permanent observer status — which it is important to note, would not make them member states of the Council or grant them any voting rights — to both China and the European Union. Professor Byers stated that:


\(^ {229}\) Russian Association of Indigenous Peoples of the North, Siberia and the Far East (RAIPON), “Open Letter.”


\(^ {231}\) Declaration on the Establishment of the Arctic Council, available at Foreign Affairs and International Trade Canada, “Arctic Council.”

\(^ {232}\) Arctic Council, “Observers.”
I think we should push for the admission of both the European Union and China as permanent observers at the Arctic Council.... The reason I say this is that any international organization, any international forum, is only as important as the people in the room. We want the Arctic Council to be the centre of Arctic diplomacy, Arctic governance. It is a compliment to us that the European Union and China want to be there.

Additional to that, there are some issues here that can't be dealt with in the absence of cooperation from those major players. If we want to deal with black carbon, we need to have China in the room. If we want to deal with regional fisheries management, we need to have the European Union in the room.233

As noted, Mr. Manicom argued that China and other Asian states have legitimate science and other maritime and commercial interests in the Arctic:

My opinion is that they should be welcomed. Functionally, they bring capacity, such as money and polar research expertise. Conceptually, if a body is going to make rules about an area, it makes sense to have users in the room. Given the lack of capacity of Arctic states to enforce the rules they make in the Arctic, engagement with the users might be the best way to ensure compliance.234

The principal argument against accepting these applications stems from the belief held by some that the Arctic Council has been successful as a regional body precisely because it has had a manageable and focused membership of Arctic states and permanent participants. They share direct interests in the Arctic and common perspectives on the principles of governance that should be applied in the region, and on the importance of incorporating indigenous knowledge and practices in the work of the Council. On the latter point, the fact that the European Union banned the importation and sale of seal products was seen as a challenge to Inuit cultural practices, which were defended by both the Government of Canada and the ICC.

In their report to ministers at the 2011 Nuuk ministerial, Senior Arctic Officials provided guidance on the broad parameters and factors that should guide decisions on the admittance of additional permanent observers to the Council. In their report to ministers, they wrote:

Since the establishment of the Arctic Council participation by observers has been a valuable feature through their provision of scientific and other expertise, information and financial resources. The involvement of observers should enhance and complement the unique and critical role of Permanent Participants in the Arctic Council.235

They added:

233 FAAE, Evidence, 27 November 2012.
234 FAAE, Evidence, 11 December 2012.
In the determination by the Council of the general suitability of an applicant for observer status the Council will, inter alia, take into account the extent to which observers:

- Accept and support the objectives of the Arctic Council defined in the Ottawa declaration.
- Recognize Arctic States’ sovereignty, sovereign rights and jurisdiction in the Arctic.
- Recognize that an extensive legal framework applies to the Arctic Ocean including, notably, the Law of the Sea, and that this framework provides a solid foundation for responsible management of this ocean.
- Respect the values, interests, culture and traditions of Arctic indigenous peoples and other Arctic inhabitants.
- Have demonstrated a political willingness as well as financial ability to contribute to the work of the Permanent Participants and other Arctic indigenous peoples.
- Have demonstrated their Arctic interests and expertise relevant to the work of the Arctic Council.
- Have demonstrated a concrete interest and ability to support the work of the Arctic Council, including through partnerships with member states and Permanent Participants bringing Arctic concerns to global decision making bodies.  

Once granted, permanent observer status will be reviewed every four years to ensure that the above-listed criteria are still being met by the party in question. On the role of observers, the officials stated that while the primary one was to observe the work of the Arctic Council, “…observers should continue to make relevant contributions through their engagement in the Arctic Council primarily at the level of working groups.” They may propose projects through an Arctic state or a permanent participant, subject to certain conditions, and in meetings of subsidiary bodies may at the discretion of the chair make statements or present documents after Arctic states and permanent participants have done so.  

The criteria noted above should guide the decisions of the Council’s member states, which will be taken by consensus. At the same time, however, Professor Lackenbauer told the Committee that “just because we have the Nuuk declaration, where these criteria are set out, I don't think the permanent observer issue has been settled, and as much as those criteria are taking us a couple of steps towards

236 Ibid.
clarity, it’s still as fuzzy as heck for me at this point.”\textsuperscript{238} As one example, regarding the application that has been submitted by the European Union, Duane Smith of the Inuit Circumpolar Council (Canada) voiced his concerns to the Committee:

They do have their own policies in place that actually conflict with not only our culture but the sustainable practices that Canada signed onto as well… all we can do as the Inuit Circumpolar Council is advise the Arctic Council that we would like to see certain things changed by some of these applicants to reflect the practices and agreed-upon processes within the Arctic Council.\textsuperscript{239}

More generally, he drew the Committee’s attention to the pillar or criteria that was listed above with respect to the demonstrated willingness and financial ability to contribute to the work of the permanent participants. He said the question of how prospective observers are “going to work with the permanent participants” is “one question they continue to ignore answering when they have applied.”\textsuperscript{240}

As noted above, Professor Byers recommended that Canada support the admission of both the European Union and China as permanent observers to the Council. In relation to the concerns that have been raised by others such as Mr. Smith, he told the Committee that:

…there are indigenous groups that are hostile to this suggestion, and they have reasons for that, including the European Union’s ban on the importation of seal products. That’s an opportunity for diplomacy, to actually say to the European Union, ‘We want you in the room for all these good reasons, but you have to help us here. How are you going to compensate the Inuit of Canada for the impact upon their economies as a result of your policy on the seal hunt?’ Instead of yelling at them and litigating against them, here’s the opportunity. They want in on the Arctic Council. They’re causing problems for some of our citizens; let’s work it out.

Across all these Arctic issues, the age-old mantra that you need to talk is centrally applicable. If there’s one thing that perhaps we haven’t been doing enough of—not just in the last six or seven years, but in the last couple of decades with regard to Arctic policy—it’s that we haven’t been talking enough to our neighbours.\textsuperscript{241}

Beyond these decisions on permanent observers, the general questions regarding how Arctic Council states should address the interest of non-Arctic states in the Council’s work and the wider region will likely remain a management challenge for the member states, as they seek to forge a coherent vision for the Council’s future direction, role and working methods. In the long run, it may also raise questions about the membership of the council itself. Mr. Crump told the Committee that “The bigger question here is how the Arctic Council can evolve in order to create a meaningful role for these observers. Right now it’s

\textsuperscript{238} FAAE, \textit{Evidence}, 22 November 2012.
\textsuperscript{239} FAAE, \textit{Evidence}, 5 March 2013.
\textsuperscript{240} Ibid.
\textsuperscript{241} FAAE, \textit{Evidence}, 27 November 2012.
sit down and listen and, you know, maybe you get to say something… Canada can’t do it by itself, but it could continue that discussion about how we bring in outside, non-Arctic voices into the Arctic Council.”

Fisheries Management

Another issue with which Arctic Council states will likely have to contend in the near future is fisheries management. The Committee was told that, as sea ice continues to diminish, commercial fishing may begin in the Central Arctic Ocean, the high seas beyond the jurisdiction of any state’s Exclusive Economic Zone (EEZ). Given past examples of widespread overfishing around the world — according to the United Nations Food and Agriculture Organization, 57% of the world’s fish stocks are fully exploited, and 30% are overexploited — a number of witnesses before the Committee argued that action should be taken to establish a regional fisheries organization for the central Arctic Ocean.

Mr. Manicom told the Committee that one of the issues driving interest among East Asian states in the Arctic relates to commercial fisheries. He noted that China, Japan and South Korea…are the world’s leading distant water fishery states, along with the EU and the United States, and demand for fish products in these states is strong. Furthermore, there is considerable overcapacity in their domestic fishing industries, particularly in China, so the opening of a new fishing ground in the Arctic would obviously be of interest.

When linking the issue of commercial fishing to Canadian foreign policy, Mr. Manicom argued that there are implications which need to be addressed before commercial fishing emerges as a significant factor in the Arctic. He stated: “There’s nothing terribly dissimilar, as far as I understand it, about Arctic fisheries that would make their emergence as an unregulated fishery different from any other fishery in the world, meaning they would be overfished to the point of collapse in the absence of regulation.”

Professor Byers told the Committee that the establishment of a regional fisheries management mechanism in the Arctic would have particular importance for states such as Canada, since efforts to establish a responsible fishery within Canada’s 200 nautical mile jurisdiction (EEZ) could be undermined if unregulated commercial fishing operations in the central Arctic Ocean pose a threat to straddling fish stocks that move in and out of Canadian waters. He told the Committee: “As I understand it, the Americans were looking for partners on this initiative and have been working closely with Russia, but Canada for some reason has been missing in action. I don’t think we would oppose such a thing, but

242 FAAE, Evidence, 19 March 2013.
243 Fisheries and Oceans Canada, State of Global Fishery.
244 FAAE, Evidence, 11 December 2012.
245 Ibid.
in terms of opportunities for leadership, this is it. Referring to the existing example of another such mechanism, the Northwest Atlantic Fisheries Organization (NAFO), Professor Byers told the Committee:

The beauty of such arrangements is that quotas are signed based on science, using the precautionary principle, and subject to negotiations obviously. The other beauty of it is that such organizations are open to membership from states outside the region. China, for instance, participates in several regional fisheries organizations, so you deal with that challenge of long-distance fishing countries to some degree. This best practice we’ve learned how to do elsewhere in the world is readily transferrable to the Arctic.

Professor McRae — who served as Canada’s chief negotiator for the Pacific Salmon dispute with the United States — agreed on the importance of fisheries management in the Arctic. For his part, however, he argued that Canada has “had a bad experience” with NAFO, which in his opinion reflects fairly typical challenges that have been encountered by regional fisheries organizations with respect to their ability to enforce rules. In his words:

Frankly, NAFO is not atypical of regional fisheries organizations. One of the big problems with regional fisheries organizations is that most of them do not have a binding system for setting total allowable catches and allocating quotas. Under NAFO, we have an objection system whereby for many years the European Union has simply said they didn’t agree with the scientifically assessed quotas and they were going to go their own way and set their own quotas. […]

I would think that if we’re going to develop a fisheries regime for the Arctic, we have to be fairly careful that we’re not going to simply duplicate the existing fisheries management regimes, which do not have the ability to ensure that everyone adheres to the quota […].

If a new area opens up, we’re going to have high-powered fishing vessels flagged, and flagged with convenience countries, crewed or captained by highly sophisticated former Russian naval captains who know how to fish and run vessels in this area.

It will be very difficult for management to occur. It’s a big challenge, but it has to be done right; otherwise we will duplicate what has happened in other areas of the world.

In light of all of these challenges and management issues, Professor Byers argued that there is an immediate need to consider the negotiation and establishment of a regional fisheries system for the Arctic “before the commercial fishing starts.” He warned that, “If we miss this opportunity in the next two years, those long-range fishing trawlers could be there already. That’s where we’ll get the real opposition to this scheme.”

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246 FAAE, Evidence, 27 November 2012.
247 Ibid.
248 Ibid.
249 Ibid.
Officials from the Department of Fisheries and Oceans were more cautious in their predictions of fisheries activity in the Central Arctic Ocean and regarding the policy responses that could be needed in anticipation of such activities. Renée Sauvé, Director of Global Marine and Northern Affairs in the department’s International Affairs Directorate, stated that this issue was discussed when the foreign ministers of the five Arctic coastal states met in Quebec in 2010 to consider issues of common concern. Officials have continued to discuss it informally since. She told the Committee that:

Uncertainty remains with respect to fish species distribution and abundance, the northern colonization by fish species, and the effects on ecosystems. Furthermore, the effects of climate change and ocean acidification on the oceanography and primary productivity of the Arctic Ocean are also unknown. More understanding is also needed regarding the impacts of such other activities as shipping, marine tourism, and oil and gas activity on marine ecosystems of the Arctic.  

Ms. Sauvé stated that Canada has no formal position on U.S. calls to halt commercial fishing in the central Arctic pending the establishment of a fisheries agreement and management organization. She told the Committee that “The issue of establishing a regional fisheries management organization or arrangement for the Arctic Ocean needs further consideration.” Moreover, from the department’s perspective, “There is still no consensus on whether a regional fisheries management organization is in fact necessary.”

She noted the existence of an international legal framework that applies to the central Arctic Ocean, including conventions related to the management of straddling fish stocks and highly migratory fish stocks. She also noted that the Arctic Council does not in fact currently have a fisheries management mandate. Underlining the need for greater information, research and understanding of both current resources and future scenarios, she said:

The coastal states have indicated that they recognize the unique responsibilities and challenges with respect to the future development of the Arctic Ocean. Informal discussions to date suggest that strengthening collaboration in Arctic research and governance of potential commercial fisheries in the Arctic is a shared objective.

David VanderZwaag, a law professor at Dalhousie University, suggested that there is a need for Arctic Council states to consider to a greater extent how the Central Arctic Ocean “doughnut hole,” an area of some 2.8 million square kilometres, which as noted is beyond the national jurisdiction of any state, should be governed. While UNCLOS applies to the high seas, and it is therefore not a lawless body of water, it could be described as a

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250 FAAE, Evidence, 21 March 2013.
251 Ibid.
252 Ibid. According to a subsequent report in The New York Times, talks related to fisheries management in the Central Arctic Ocean were scheduled for late April 2013 between Norway, Denmark, Canada, the United States and Russia. The article suggests that “The governments of the five countries with coastline on the Arctic have concluded that enough of the polar ice cap now melts regularly in the summertime that an agreement regulating commercial fishing near the North Pole is warranted.” See: Andrew E. Kramer, “Accord would Regulate Fishing in Arctic Waters,” The New York Times, 16 April 2013.
lightly managed one. Professor VanderZwaag suggested that a more fundamental question needs to be answered by Arctic Council states. In his words, “What future do Arctic states foresee: commercialization, conservation, [or] a mix?”

### Oil Spill Prevention and Response

Oil spills in the Arctic, particularly if they were to occur in ice-filled waters, could be devastating for the sensitive ecology of the region and its inhabitants. A number of witnesses discussed the need to address the increased potential for oil spills from either marine vessels or offshore platforms. Jody Thomas, Deputy Commissioner of Operations for the Canadian Coast Guard, told the Committee that

> Northern resource development is a growth industry with increasing opportunities for offshore oil and gas exploration and development as well as mining. As exploration increases we can and should expect larger ships and more traffic in an area where marine charting and surveying is less developed than in the south. This will increase the potential for oil pollution incidents.

She explained that operational spills from vessels engaged in community resupply are currently the greatest source of risk for the Canadian Arctic. Ed Zebedee of the Government of Nunavut stated that “While the annual sea lift is critical to the operation of all communities in Nunavut, it adds an additional risk due to the lack of proper docking facilities. Fuel must be pumped to a shore-receiving area in floating booms, increasing the chance of an ocean spill.”

Ms. Thomas told the Committee that over 20 caches of oil spill equipment are prepositioned in the Canadian Arctic, and that three rapidly transportable large packs of equipment are also available to respond to a major spill. However, while there are four Transport Canada certified response organizations in Canada located south of 60 degrees north, there are no such organizations located north of 60 degrees. Ms. Thomas said that “It is the Canadian Coast Guard, industry, and Arctic community volunteers who comprise the primary response capacity to pollution from ships or unknown sources in Arctic waters.” In terms of the preparation and response capabilities that are in place, she continued:

> The concept of marine pollution, no matter where it occurs in Canada, is that you cascade assets. Should there be a major spill anywhere in the country, including the Arctic, we would cascade all the assets up to the Arctic from anywhere in the country to respond. We also have the bilateral agreement with the United States, and we would rely on them and the assets they have to help us respond.

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253 FAAE, Evidence, 19 March 2013.
254 FAAE, Evidence, 28 February 2013.
255 FAAE, Evidence, 26 February 2013.
256 FAAE, Evidence, 28 February 2013.
Recognition of the increased danger of transnational oil spills has also spurred action at the regional level. In 2011, Senior Arctic Officials reported to ministers that:

The Arctic is likely to see increased shipping and efforts to exploit the natural resources of the region in the coming decades. This, in turn, increases the potential for harm to both human life and the Arctic environment. Recent events such as the sinking of the M/S EXPLORER in 2007 in Antarctic waters and the Deepwater Horizon oil spill in 2010 in the Gulf of Mexico underscore these dangers.257

Indeed, the Deepwater Horizon spill in the Gulf of Mexico has served as a key precautionary example for Arctic policy-makers of the potential logistical, technological, financial and other challenges that can be encountered in responding to a major oil spill even when it occurs in relatively calm waters which are easily accessible to the full range of U.S. government and industry vessels and personnel. Such conditions would not be replicated in the remote and vast Arctic, which is characterized by unpredictable weather, hazardous waters, and stretched maritime resources.

Arctic Council ministers agreed to establish a task force that would develop an international instrument on Arctic marine oil pollution preparedness and response. Negotiations have concluded, and the completed agreement will be considered at the Arctic Council ministerial meeting in May 2013. Ms. Thomas explained the agreement’s overall objective, which “is to strengthen emergency cooperation and coordination among Arctic states in the event of an Arctic marine oil spill that exceeds one nation’s capacity to respond.”258 Jacqueline Gonçalves of the Canadian Coast Guard, who led the Canadian negotiating team on this instrument, told the Committee that the agreement is “very specific in nature and is really operational.” She continued:

There are specific elements in the treaty that cover off essentially the life cycle of an incident. For example, if one country detected that an oil spill has occurred, how would we go about notifying each other; what kind of participation would we undertake; how would we call on others to work with us to resolve the recovery of the oil; how do we share best practices; how do we exercise and train? Those are really elements establishing protocols amongst ourselves so that we’re not trying to figure them out in the midst of an incident.259

John Crump told the Committee that in January 2013, a number of NGOs taking part in the Arctic NGO Forum had sent a letter to Senior Arctic Officials encouraging the Arctic Council states to “endorse a process through which ongoing work under the agreement can continue and gaps can be filled.”260

258 FAAE, Evidence, 28 February 2013.
259 Ibid.
260 FAAE, Evidence, 19 March 2013.
Professor Byers argued that in addition to pursuing cooperative work necessary to respond to oil spills, Canada and other Arctic states should also work together collaboratively at a regional level to prevent them. Noting the difficult operating conditions and risks in the region, he argued that Canada and other states should collectively raise the safety standards required for operations in the Arctic in a new treaty, and take steps to ensure that there is not a “race for the bottom” in terms of national regulations in the region. He said:

...there's increasing evidence, particularly in the Arctic, that the major oil companies want to have a high degree of regulation and safety with regard to these issues, because they've seen the consequences for that oil company, and we saw this last summer in Canada. We opened up five new lease blocks in the Beaufort Sea and none of the majors bid for them. The majors in the last couple of years have shifted their attention to places like Russia, Norway, and Greenland, perhaps because Canada's been behind in terms of adopting tough standards.

So let's get with the momentum and show leadership, and raise our standards collectively with other Arctic states. 261

If the Arctic Council is designed to address issues that either cannot or should not be managed by any one state, it seems that the actions and policies necessary to prevent and respond to oil spills must fall into that category. While national governments must put in place necessary measures and legislation to prevent and address potential spills within their waters, the geography of the region, the chance that a major spill could overwhelm the resources of any one state, and the potential impact that could result for different Arctic states from a potential oil spill in the area of jurisdiction of any one of them, necessitates a concerted regional response.

CONCLUSIONS AND RECOMMENDATIONS

In the past 20 years, regional cooperation in the Arctic has been a major element of Canadian foreign policy. As Canada assumes the rotating chair of the key organization in the Arctic, it has an opportunity to build on these achievements and push for progress in several policy areas. In addition to the priority areas for regional leadership that the Committee believes should guide Canada's two years as Arctic Council chair, the Committee is also mindful of the testimony it received regarding priorities that Canada needs to address in its own north, in order to lay the groundwork for prosperous northern communities, thus strengthening and enhancing its ability to project its Arctic foreign policy. As was argued in this report, in many policy areas Canada's domestic and foreign Arctic policies should be approached as two sides of the same coin. This is the case, for example, in regards to investment in infrastructure, which is at once needed to ensure northern communities are able to capitalize on the significant economic development opportunities that exist, as it is needed to ensure Canada is in a position to monitor and enforce its jurisdiction over maritime traffic, and engage in search and rescue operations in

261 FAAE, Evidence, 27 November 2012.
its Arctic territory and waters. Another example is further action on short-lived climate forcers, which can benefit human health and the environment in Canada and the broader circumpolar region, advancing sustainable development in both.

Canada should therefore approach its Arctic foreign policy as a multi-level process. Steps are needed at the national level, in keeping with the priorities outlined in the government's 2009 Northern Strategy, as part of the regional work of the Arctic Council, and in the broader multilateral arena. The Committee's recommendations are intended to address priorities and actions required at all three levels, in the hope of contributing to a comprehensive Canadian strategy for the Arctic for its 2013–2015 chairmanship and beyond. Overall, by the conclusion of its study, the Committee was left with the impression of a Canadian Arctic that has the potential for significant economic growth, which must flow from a continuing emphasis on sustainable economic development and innovation, matched with a focus on community resiliency. It was also clear from the witnesses who appeared that dramatic changes are underway in the Arctic region. Indeed, change is perhaps the region's current defining feature. Global environmental and economic forces are interacting to open the region, a reality which the Committee has heard brings with it both opportunities and challenges. And it is of course the latter which governments must manage. As Canada assumes the chair of the Arctic Council, it is in a position to provide regional leadership to do exactly that. With these general conclusions in mind, the Committee puts forward the following recommendations to the Government of Canada.

**Canada's Chair of the Arctic Council, 2013–2015**

**The Role, Vision and Structure of the Arctic Council**

1. The Committee recommends that as Arctic Council chair the Government of Canada encourage the Council to enhance its efforts to share among the member states and permanent participants best practices, knowledge and experiences regarding sustainable economic development, business and job creation, and community resiliency.

2. In support of this work, the Committee further recommends that the Government of Canada encourage Arctic states to establish a circumpolar business council that would be designed to work with the Arctic Council.

3. The Committee recommends that during its chairmanship the Government of Canada continue discussions with Arctic Council member states and permanent observer states to find ways to address the capacity and financial issues facing the Council's permanent participants.

4. The Committee recommends that the Government of Canada only support the applications of parties that are seeking permanent observer status with the Arctic Council in cases where such applicants satisfy the criteria
established at the Arctic Council ministerial in 2011, which must include full compliance with the following core principles:

- The applicant accepts and supports the objectives of the Arctic Council;
- They recognize national sovereignty, sovereign rights and jurisdiction in the Arctic;
- They recognize that an extensive legal framework applies to the Arctic Ocean, in particular the law of the sea; and,
- They respect and have demonstrated a clear political willingness and financial commitment to contribute to the work of the permanent participants to the Arctic Council.

5. The Committee recommends that the Government of Canada pursue cooperation with the United States regarding key initiatives that are underway and proposed for the Arctic Council, with the objective of enhancing the coherence of the countries’ successive terms as Arctic Council chair.

The Management of Arctic Waters

6. The Committee recommends that the Government of Canada support the finalization of a robust and mandatory Polar Code under the auspices of the International Maritime Organization; at the same time, the Government of Canada should pursue work through the Arctic Council on common shipping standards and regulations to ensure maritime safety and environmental protection in the Arctic.

7. The Committee recommends that as Arctic Council chair the Government of Canada facilitate a discussion within the Council regarding the adoption of tourism guidelines for the region, with particular regard to the cruise ship industry.

Fisheries Management

8. The Committee recommends that as Arctic Council chair the Government of Canada initiate discussion within the Council on a common vision regarding how fisheries and
fish stocks should be managed and regulated in the Central Arctic Ocean.

Environmental Protection

9. The Committee recommends that as Arctic Council chair the Government of Canada push for the negotiation of an instrument on the reduction of short-lived climate forcers in the Arctic, with a particular focus on black carbon.

10. The Committee recommends that as Arctic Council chair the Government of Canada encourage work within the Council related to the prevention of oil spills and pollution in the region, as part of the Council’s on-going work on oil spill preparedness and response.

Canada’s Arctic Policy

11. The Committee recommends that the Government of Canada focus its domestic Arctic policy on an approach that both facilitates sustainable economic development and prosperity and enhances community resiliency and viability. This approach must be implemented in close partnership with northern Canadians, recognizing the particular circumstances, aspirations and concerns of Aboriginal peoples in the Canadian Arctic and the context of established land claims and territorial devolution.

12. The Committee recommends that the Government of Canada continue to focus investment on maritime infrastructure in the Canadian Arctic.

13. The Committee recommends that the Government of Canada review its capacity to implement the terms of the Arctic states’ 2011 agreement on search and rescue.

14. The Committee recommends that the Government of Canada continue to fund scientific research in order to enhance knowledge and understanding of environmental changes that are underway in the Arctic, and to inform decision-making on needed responses to those changes, and that it work closely with other Arctic and non-Arctic nations on international Arctic science.
### APPENDIX A

**LIST OF WITNESSES**

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<td>Laureen Kinney, Associate Assistant Deputy Minister</td>
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<td>Danielle Labonté, Director General</td>
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<td>Geoff Green, Founder and Executive Director</td>
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<td>David VanderZwaag, Professor of Law</td>
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<tr>
<td>Canada Research Chair in Ocean Law and Governance, Dalhousie University</td>
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<td>Anita Dey Nuttall, Associate Director</td>
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<td><strong>GRID-Arendal</strong></td>
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<td>Darielle Talarico, Chair</td>
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APPENDIX B
LIST OF BRIEFS

Organizations and Individuals

Department of Fisheries and Oceans

Grant, Shelagh

PROLOG Canada Inc.
REQUEST FOR GOVERNMENT RESPONSE

Pursuant to Standing Order 109, the Committee requests that the Government table a comprehensive response to this Report.

A copy of the relevant Minutes of Proceedings (Meetings Nos. 55-58, 60-61, 63, 67-76) is tabled.

Respectfully submitted,

Dean Allison
Chair
The Official Opposition Members of the Standing Committee on Foreign Affairs and International Development largely concur with the Committee’s report, however we wish to make the following points.

It is the view of the Official Opposition Members of the Committee that the primary consideration of the Arctic Council under the two years of Canada’s chairmanship should remain on the issues related to the mitigation and impacts of climate change on the Arctic environment, which are international and global in implication and can more effectively be tackled by multinational means, and social development. Business development, while increasing in importance, will only benefit from international agreement on and understanding of these issues.

The first two recommendations of the report encourage the Arctic Council to move away from its main mandate of dealing with the Arctic environment, including the challenges presented by climate change, and social development towards a new focus on business development. It is the view of the Official Opposition Committee Members that business development of Arctic communities will best advance when the urgent issues of climate change and social development are prioritized by the Council.

Regarding recommendation three, the Official Opposition Members of the Committee would prefer to see the Aboriginal Permanent Participants funded through the Arctic Council rather than having them reliant on individual nations for their funding.

With regards to recommendation fourteen, the Official Opposition Committee Members also feel the Arctic Council should be encouraging an international Arctic scientific research agenda rather than having individual nations working in isolation.

Finally, the Official Opposition Members of the Committee regret that the Minister responsible for the Arctic Council was unable to appear before the committee during the preparation of this report. Given the importance of the Minister’s role as incoming Council Chair, and the interest of all Members in a successful Canadian chairmanship, we ask that the Minister make an annual report to Parliament in each of the two years of the Canadian chairmanship.