



PUTTING THE ARCTIC BACK ON THE MAP: A PROGRESS REPORT IN ANTICIPATION OF THE
ARCTIC COUNCIL'S TWENTIETH ANNIVERSARY

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Photo by Gus Goldman, Svalbard 2011

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PREFACE

The Task Force Program

The International Studies Program at the Jackson School introduces students to international issues through rigorous coursework in a wide variety of disciplinary and cross-disciplinary settings. The Program seeks to equip its students with the conceptual and analytical tools and knowledge needed to help make sense of complex global issues and processes. Task Force is a required course offered only in Winter Quarter for International Studies majors.

Task Force has been part of the International Studies major since 1983. The original format was modeled on the Presidential Commissions common in policymaking in the United States. In recent years, Task Forces have investigated a wide range of topics and provided recommendations to various branches and offices of the U.S. government, as well as to international, multilateral, and non-governmental organizations.

Task Forces consist of small groups of students, numbering between 12 and 18, who investigate a real-world policy issue and produce a final report and practical policy recommendations. Past generations of International Studies majors have greatly valued the opportunities and the challenges of working together in small groups with clear goals and tight deadlines – an environment intended to mimic the real-world activities and workplace experiences that students will encounter upon graduation.

We, the writers of this report, chose the Arctic Task Force option due to our collective interest in the Global North and Arctic governance.

Archives of Past Arctic Task Force Reports

Arctic Task Force: 2009

<http://jsis.washington.edu/canada/file/archive/taskforce09/>

The 2009 Arctic Task Force focused their report on the Canadian-U.S. dispute over the Northwest Passage, shipping issues, and the role of Canada's Inuit in Arctic sovereignty. The students presented their findings to Rob Huebert, Centre for Military and Strategic Studies, University of Calgary.

Arctic Task Force: 2011

<http://jsis.washington.edu/canada/courses/arctic.shtml>

In 2011, in an effort to create a truly international educational experience, Canadian Studies and the Makivik Corporation, Nunavik, created a partnership to involve Canadian Inuit participants in the program. The international team created an extensive report covering the issues of Arctic security, health and education, aboriginal rights, and European Union participation in the Arctic Council.

Arctic Task Force: 2013

<https://jsis.washington.edu/canada/file/Arctic%20Task%20Force%2013%20book.pdf>

The 2013 Arctic Task Force Report focused on Arctic security in particular. Thanks to a Government of Québec grant, Joel Plouffe, from l'Université du Québec à Montréal, served as co-instructor of the Task Force and the team was able to travel to both Québec City and Ottawa as part of their research experience.

The 2016 Arctic Task Force Team

This year's Arctic Task Force team was comprised of twelve undergraduate students and one graduate student whose collective interest in Arctic policy and governance contributed to the creation of this well-researched and inventive report. Without the hard work of all members of this team, the final report be what it is today.

We would also like to extend our sincerest gratitude to the instructors and contributors of this course:

Nadine C. Fabbi is the managing director of the Jackson School's Canadian Studies Center, chair of the UW minor in Arctic studies and the UW representative for the University of the Arctic. Her research focuses on indigenous diplomacies and international relations in the Arctic. She teaches ARCTIC 200 and co-teaches the Task Force on the Arctic for the Jackson School. She has also taught Inuit history and political mobilization at the University of Alberta and the University Centre of the Westfjords in Ísafjörður, Iceland. Her publications include "Inuit foreign policy and international relations in the Arctic," (in L. C. Jensen & G. Hønneland (Eds.), *Handbook of the Politics of the Arctic* 2015); "Inuit political involvement in the Arctic," (in L. Heininen (Ed.), *Arctic*

Yearbook 2012; and "Geopolitics, Arctic Council, and Arctic resources," with V. Gallucci and D. Hellmann (in C. Carothers, et al. (Eds.), *Fishing People of the North: Cultures, Economies, and Management Responding to Change*, 2012).

Vincent Gallucci is the chair and director of the Jackson School's Canadian Studies Center, director of the Center for Quantitative Science in the UW College of the Environment, professor in the UW School of Aquatic and Fishery Sciences and adjunct professor with the Ellison Center for Russian, East European and Central Asian Studies at the Jackson School, and also at the School of Marine and Environmental Affairs. His research focus is the geopolitical dimensions of Arctic development as viewed through the impact of international actors on the Arctic Council. He is also deeply involved with Arctic and sub-Arctic marine fisheries management, endangered species protection, Russian fisheries science and Russian involvement in the Arctic debate. He serves on an Arctic biodiversity assessment team appointed by the Arctic Council and on the Russian Academy of Sciences editorial board for the journal *Regionalistica*, devoted to research on the social and economic processes occurring in the Russian far east.

Brandon Ray is a research assistant in University of Washington's Department of Atmospheric Science. His research focuses on sea ice predictability in the Arctic at seasonal to interannual timescales, with the goal of allowing stakeholders to better understand the limitations of seasonal forecasts. Brandon was a member of the inaugural Arctic Research Fellows program at University of Washington, where he worked with another graduate student, Brit Sojka, and Nadine Fabbi on a project which examined how the climate change narratives of scientific, political, and indigenous communities have evolved and influenced each other in the Arctic.

Joël Plouffe is a Research Fellow at the Interuniversity Research Center on the International Relations of Canada and Québec (CIRRICQ) at ENAP, Montréal, Co-Managing Editor of the Arctic Yearbook, and Fellow at the Canadian Global Affairs Institute (CGAI). Joël's research and publications focus mainly on Arctic geopolitics and security, and Canada-US relations. He was a Visiting Scholar at Western Washington University (WWU) in 2010 and 2015, and Visiting Scholar and Faculty Advisor at the Jackson School for International Studies (JSIS) at the University of Washington (UW) in 2013. He is a member of the Northern Research Forum's (NRF)/UARctic Thematic Network on Geopolitics and Security; ArcticNet's Arctic Transportation Programme; and an International Visitor Leadership Program (IVLP) Arctic Security Alumnus, U.S. Department of State. Joël is a PhD candidate in Public Policy Analysis at ENAP and his thesis deals with US Arctic region foreign policy making and implementation.

ACKNOWLEDGMENTS

This Task Force report could not have been completed without the generous guidance, support and input from many people. We would especially like to thank the people and organizations who graciously hosted us during our research trip to Ottawa, Canada. These include (in order of itinerary):

- Charmaine and George Neufeld, Ashbury House Bed & Breakfast
- Craig MacDonald, Ottawa Walking Tours
- Jaime Koebel, Indigenous Walks
- Ambassador Bruce Heyman, Ambassador of the United States to Canada
- Miguel Rodrigues, United States Embassy Arctic Officer
- David Birdsey, United States Embassy Counselor
- L. "Bud" Locklear, United States Embassy Special Advisor
- Danielle Monosson, United States Embassy Deputy Counselor
- Ambassador Charles Murto, Ambassador of Finland to Canada
- Anni Stahle, Head of Public Diplomacy Finnish Embassy
- Ambassador Marie-Anne Coninx, Ambassador of the European Union to Canada
- Stefano Fantaroni, First Counsellor European Union Delegation
- Barry Pottle, Inuk Photographer
- Morley Hanson, Coordinator of Nunavut Sivuniksavut
- Sari Graben, 2012-2013 UW Canada Fulbright Chair
- Heather Nicol, 2015-2016 UW Canada Fulbright Chair
- Tony Penikett, 2014-2014 UW Canada Fulbright Chair
- Andrew Stuhl, Bucknell University
- Pitseolak Pfeifer, Carleton University
- Else Kveinen, Norwegian Embassy Minister Counsellor
- Pablo Sobrino, Associate Assistant Deputy Minister, Acquisitions Branch at Public Works
- Jonathan Quinn, Director of Policy Development, Department of National Defence
- Nadia Bouffard, Director General, Fisheries and Oceans Canada
- Marc-André Dubois, Advisor, External Relations at WWF
- Susan Harper, former Senior Arctic Official for Canada
- Donat Savoie, former Chief Federal Negotiator for Nunavik
- Jean-François Arteau, former Executive Assistant to the President of the Makivik Corporation
- Pablo Sobrino, Associate Assistant Deputy Minister, Acquisitions Branch at Public Works
- David Sarraf, Policy Officer, Circumpolar Affairs Division, Global Affairs Canada
- Northern Lights Forum Speakers

We would also like to thank Fulbright Canada, Foundation for Educational Exchange Between Canada and the United States of America, for providing significant funding and making this trip and report possible.

Our research trip was generously supported by funds from the University of Washington Jackson School International Policy Institute (the Institute is funded by a grant from Carnegie Corporation of New York aimed at improving the transfer of research and expertise between higher education and the policy world in the area of global affairs); the Hellmann Fund for Innovation and Excellence in International Studies; the Abe and Sydney Block Foundation; and the Center for Global Studies and Canadian Studies Center (with Title VI grant funding, Office of Postsecondary Education, International Education Program Services, U.S. Department of Education).

We would also like to extend our gratitude to the evaluator of our presentation and report, **Ambassador Kenneth Yalowitz.**

Ambassador Yalowitz became the Director of the Conflict Resolution MA Program at Georgetown University on July 1, 2015. He is also a Global Fellow at the Woodrow Wilson Center in Washington, DC and an adjunct professor of government at the Stanford University in Washington Program. He served as the Director of the Dickey Center for International Understanding at Dartmouth College from 2003 -2011 following retirement from the US Department of State after 36 years as a career diplomat and member of the Senior Foreign Service. Ambassador Yalowitz has served as a U.S. ambassador overseas and has won a variety of awards for conflict prevention and overall diplomatic performance. He has authored or co-authored op-eds and articles in publications such as the International Herald Tribune, Washington Post, New York Times, Boston Globe, Christian Science Monitor, The National Interest, Reuters, CNN Blog, The American Interest, US News and World Report, Project Syndicate, McClatchy News and The Hill.

EXECUTIVE SUMMARY

By Erika Doane

We, the 2016 Arctic Task Force Team, have written this report in anticipation of the twentieth anniversary of the establishment of the Arctic Council in the fall of this year. Through an in-depth analysis of the history and current state of Arctic Council governance, we seek to evaluate the short-comings and successes of Arctic policy and practice and produce a renewed vision for the future of Arctic governance, so that the next twenty years have the potential to be even more impactful. While there are a multitude of important topics and issues related to current Arctic affairs, we have chosen to report on eleven that we deem in need of immediate addressing.

This report is organized in the following manner:

Part I will discuss the impact and mitigation of climate change in the Arctic, focusing on the history and current state of resource extraction (Chapter 1), the effects of black carbon and methane pollution (Chapter 2), and the climate-induced displacement of Arctic communities (Chapter 3).

Part II will discuss the capacity-building of Indigenous peoples in the Arctic, focusing on the promotion of food security for Inuit communities (Chapter 4), mental wellness and resilience (Chapter 5), and educational opportunities for Indigenous youth (Chapter 6).

Part III will discuss the developing economic and legal structure of the Arctic, focusing on the analysis of economic development policies in the Far North (Chapter 7) and the future for international maritime law in the Arctic Ocean (Chapter 8).

Part IV will discuss the future of security and cooperation in the Arctic, focusing on geopolitics and the Arctic security dilemma (Chapter 9) and search and rescue cooperation (Chapter 10).

Part V will discuss the future of the Arctic Council, specifically how the Council can be reformed in order to adapt to the changing global dynamics of the North (Chapter 11).

Each individual chapter will contain key policy recommendations related to its specific topic:

Policy Recommendations

Related to the Environment:

1. Partnership between nations and private oil companies
2. Establishment of a single task force that focuses on resource extraction rules
3. Ensure that the Arctic is available to the responsible extracting companies
4. Specific and binding agreements regarding emissions of black carbon and methane
5. Better control and regulation of economic activities in the Arctic oil and gas industry
6. Decrease Indigenous communities' reliance on fossil fuels
7. Fund research and raise awareness of climate refugees
8. Provide a clear definition in order to designate legal rights to climate refugees
9. Create an overarching governing body that streamlines relocation process

Related to the Commitment to Indigenous Peoples:

1. SDWG should establish an impact measurement standard for mental health programs
2. Member states should establish funding mechanisms to support mental health programs
3. SDWG should initiate collaboration with the ICC and RAIPON
4. SDWG should explore project development and research on an Inuit University
5. Student representatives/advocates for an Inuit University should be invited to AC meetings
6. UArctic should support an Inuit University by lending planning expertise

Related to Economic & Legal Policies:

1. Establish targeted areas for improvement in order to set tangible development goals.
2. Encourage development of industries outside of natural resources in Far North
3. Increase access to infrastructure and telecommunication services in communities.
4. Formulate an international agreement that establishes an Arctic Maritime Code

Related to Security & Cooperation:

1. The US needs to join UNCLOS
2. Sanctions against Russia need to be modified
3. An Arctic Security Forum needs to be created
4. Develop more specific guidelines to continue Observer status in the Arctic Council
5. Craft policy incentivizing Russia to integrate into the ACGF

Related to the Future of the Arctic Council:

1. Increase coordination by creating a system to identify common priority issues
2. Create an efficient and effective tracking system to check on the progress of projects
3. Ensure sufficient funding to increase indigenous participation capacity within the AC
4. Include regional governments as part of the Arctic Council

It is our hope that this report will contribute to the important dialogue surrounding the function and organization of the Arctic Council, as well where the Council should focus its energy and attention in the years to come.

INTRODUCTION

By Erika Doane

The Establishment of the Arctic Council

International cooperation in the Arctic region entered into a new era in the years leading up to the end of the Cold War. Former General Secretary of the USSR, Mikhail Gorbachev's now famous speech in Murmansk, Russia in 1987 paved the way for the northern countries of the globe to join together and to lay a solid foundation for future international collaboration in the arenas of environmental protection and Indigenous rights. This same speech, in conjunction with the interest and great assistance of Finland, initiated a process that led to the signing of the Arctic Environmental Protection Strategy (AEPS) in 1991 by the eight Arctic States (Canada, Denmark (on behalf of Greenland), Finland, Iceland, Norway, Russia, Sweden and the United States). Five years later, in the fall of 1996, the Arctic Council was established upon the signing of the Ottawa Declaration by these same nations.

The Ottawa Declaration formally established the Arctic Council as a high-level intergovernmental forum to provide a means for promoting cooperation, coordination and interaction among the Arctic States, with the involvement of the Arctic Indigenous communities and other Arctic inhabitants on common Arctic issues; in particular, issues of sustainable development and environmental protection in the Arctic.¹ The representatives of the governments of the eight aforementioned Member States of the Arctic Council affirmed their collective commitment to:²

- the well-being of inhabitants of the Arctic
- the sustainable development of the Arctic region
- the protection of the Arctic environment
- the traditional knowledge of Indigenous peoples of the Arctic
- providing a means for promoting cooperative activities to address Arctic issues
- recognizing the valuable contribution and support of the Permanent Participants
- providing regular intergovernmental consideration of and consultation on Arctic issues

However, the history of the establishment of the Arctic Council and interest in the Arctic region is multifaceted and not completely as altruistic as it may seem on paper. Professor in the

Department of Geography and Economic History at Umeå University in Sweden, Carina Keskitalo, writes extensively on Arctic history and the role of discourse in region-building. It is important to note that the concept of what constitutes a region is constructed by and for particular actors.³

The Arctic region is not natural or given, but has been constructed as such in discourse. The truth is that the emergence of the Arctic 'region' as a preferred analytical focus has taken place primarily since the end of the Cold War, right around the time of Gorbachev's Murmansk speech. In this context, "regional developments can be seen as one result of globalization, which is often seen as entailing new ways and a new scale on which, and awareness with which, individuals and groups relate to the world beyond the conventional categories of nation and state."⁴ On one hand, viewing the Arctic as a region had led to increased international cooperation on collective issues and interests, but on the other, the Arctic region is consistently being viewed through a Western lens. Keskitalo speaks to the existence of what she refers to as "Arctic Orientalism," that is, how representations of the Arctic have been used by the West to create an image of the Arctic better suited to bolster the West's narrative of its own justified presence in the region. It has been especially important for us (the writers of this report) to keep in mind, as we formulate and construct our own ideas, that all of our views and perceptions of the Arctic are still shaped by the discourse we have encountered in a Western context. We each have made a concerted effort to recognize our own preconceived notions of the Arctic and its peoples in order to approach our own writing critically and to accurately depict the reality of current Arctic governance.

An important portion of the history of the establishment of the Arctic Council is often overlooked. As former Canadian civil servant Thomas S. Axworthy points out, the Arctic Council emerged from a combination of conditions conducive to change. Gorbachev did indeed open the door to a northern zone of peace and the Finns were the first through the opening with their proposal for the AEPS, but it took more than eight years for the United States to come on board.⁵ The support of Russia was crucial to eventually attracting the interest of the U.S. What is often overlooked, in Axworthy's opinion, is the tremendous role that the Inuit and Saami peoples played in contributing to creating the change of conditions which led to creation of the Arctic Council.⁶ He claims that, "through every phase of the Council's creation – agenda formation, negotiation, operationalization – Indigenous leaders, especially the ICC, have promoted a cooperative, peaceful, circumpolar Arctic," and that their positive impact on the Arctic Council is a precedent that many hope will be replicated on a global scale.⁷

The Arctic Council Today

Today, the Arctic Council is one of the world's most unique international institutions in that it is still the only organization of its kind that includes the voices and consultation of six Indigenous peoples' organizations (collectively known as the Permanent Participants). Out of a total of four million inhabitants of the Arctic region, approximately 500,000 are Indigenous peoples. The Council truly does benefit from the Permanent Participants' valuable contributions to its activities in all areas, due to the inclusion of Indigenous Knowledge and a valuable perspective regarding how to best address Indigenous-related issues.

In addition to the eight Member States and six Permanent Participants, the Arctic Council also currently contains thirty-two Observers (non-Arctic states, intergovernmental organizations, and nongovernmental organizations) that are invited by the Council members to observe the inner-workings of the Arctic Council and to include relevant influence into its work. The Chairmanship of the Arctic Council rotates every two years between the eight Member States and concludes with a biennial Ministerial Meeting. Canada chaired the Arctic Council from 2013-2015, the United States is the current Chair until 2017, and Finland will take over the Chairmanship beginning in 2017.

At the Ninth Ministerial Meeting in Iqaluit, Canada, the Iqaluit Declaration of 2015, was released as part of the conclusion of Canada's 2013-2015 Chairmanship. The theme of its Chairmanship was "Development for the People of the North," a step in the right direction toward the advancement of the Indigenous communities of the Arctic North. Canada's goals were to sustain Arctic communities, protect the unique Arctic environment, and to build a stronger Arctic Council. The Iqaluit Declaration includes mention of welcoming the establishment of the Arctic Economic Council, its recognition of the importance of improving mental health and wellness in Arctic indigenous communities, its welcoming of the traditional and local knowledge of Indigenous peoples, and its welcoming of the growing importance of tourism to many Arctic communities.⁸ Although it is not explicitly mentioned in the Iqaluit Declaration, during Canada's Chairmanship, six new Observers were welcomed into the Arctic Council, including China, India, Japan, South Korea, Singapore and Italy. The inclusion, role, and status of Observers has been and continues to be a contentious topic since the establishment of the Council. While many are apprehensive about the influence that the Asian Observers will have in the Council and in Arctic policy in general, others believe that their inclusion will only contribute to the functionality of the Arctic Council.

Piotr Graczyk, a PhD candidate at the University of Warsaw, presented a paper during “*The Arctic Council: Its Place in the Future of Arctic Governance*” seminar in 2012 that sought to develop a new concept of the place and form of the Arctic Council from the perspective of a re-defined non-Arctic participation.⁹ He puts forth what he deems, “the most appropriate way of involvement of non-regional players in the Arctic Council’s activities that would be congruent with all parties’ interests and would not encroach upon the unique character of the Council.”¹⁰ He concludes that cooperation with non-Arctic actors should be strengthened, and that the Arctic Council should remain a venue where interested actors (Arctic and non-Arctic) meet to solve real problems of the region.¹¹

Timo Koivurova, Research Professor and Director of the Northern Institute for Environmental and Minority Law at the Arctic Centre at the University of Lapland, also writes extensively on the structure and organization of the Arctic Council. He, like Graczyk, believes that the Observers could potentially have a large role in the function of the Council. He writes: “It is my opinion that all the current applicants should be accepted as Observers and included in the work of the Council. By including these major states and the EU, it is possible also to sensitize them to the environmental concerns of the region; after all, scientific research on environmental threats to the region has been the successful part of how the Council has functioned.”¹² Koivurova claims that allowing more countries to become Observers within the Council is advantageous, and will allow more interested parties to become educated on and participate in tackling key issues.

The role and status of Observers is something that will continue, throughout the current U.S. Chairmanship, to be a topic of major conversation. When the U.S. took over Canadian Chairmanship in 2015, it published a report outlining its program for the Arctic. The report focuses on three areas: improving economic and living conditions in the Arctic communities; Arctic Ocean safety, security and stewardship; and addressing the impacts of climate change.¹³ The United States assumed the two-year rotating Chairmanship of the Arctic Council in April of 2015, at a crucial moment when “the effects of climate change were bringing a myriad of new environmental, human, and economic opportunities and challenges to the Arctic.”¹⁴

Oran Young, renowned Arctic scholar, is confident that the Arctic region is not fated to become a victim of climate change, globalization, and the actions of multinational corporations.¹⁵ In fact, “there is much to be said for developing a discourse of Arctic stewardship in response to this situation, a way of thinking that emphasizes the identification of actionable harms and appropriate respondents, the development of realistic remedies, and the establishment of

mechanism designed to administer these remedies in a manner that Arctic residents regard as legitimate.”¹⁶ These opportunities and challenges are still very much present and only time will tell how successful the Arctic Council, under U.S. Chairmanship, will be at addressing them.

The Purpose & Goal of this Report

In this report, we, the 2016 Arctic Task Force, seek to evaluate the short-comings and successes of the Arctic Council since its establishment twenty years ago. Through an in-depth analysis of the history and current status of Arctic Council policy and practice, we have produced a renewed vision for the future of Arctic governance.

Our ideas and original contributions to this report have all been informed by the visits and conversations we had with ambassadors, government officials, Indigenous peoples, lawyers, non-profits, and other Arctic scholars during our trip to Ottawa in January. It was this trip that played an important role in helping us choose which topics and issues we should address in our report.

As a team, we decided to focus on what we deemed the most pressing issues that need immediate addressing: climate change and environmental concerns in the Arctic, opportunity and resilience of Indigenous communities, economic development in the Far North, the future of Arctic security and cooperation, and the structure and function of the Arctic Council. Through our own research, in conjunction with the unique insights we gained in Ottawa, each of the writers of this report have broken down their respective issue/topic in order to analyze its history including how the Arctic Council has addressed it in the past, how the Arctic Council is currently addressing it, and how the Arctic Council should continue to address it in the future.

The first section of the report focuses on climate change and its effects in the Arctic. In Chapter 1, Laura Heckenlively will discuss the history and future of responsible resource extraction in the Arctic and will shed light on how the Arctic Council can ensure its sustainable future. Related to resource extraction, in the second chapter, Kelsey Brewster will discuss the pollution in the Arctic, specifically the detrimental role that black carbon and methane emissions play in the Arctic environment. To conclude the section, Danika Moore, in the third chapter, will discuss a problem that has only recently been given sufficient attention: the climate-induced displacement of Indigenous communities in the Far North. The section concludes with key policy recommendations regarding these environment-related issues.

The second section of the report focuses on the resilience and future opportunities of Arctic Indigenous communities. The ideas and content of this section were especially informed by our visit to Nunavut Sivuniksavut, an organization in Ottawa dedicated to providing Inuit youth with unique cultural and academic learning experiences. In Chapter 4, Allie Rutz will discuss Inuit food security, defining the idea and solution using both Inuit and global understandings. In Chapter 5, Claire Wang will discuss a growing cross-generational challenge in many Indigenous communities: mental health and suicide. She will identify potential solutions and offer a vision for the future of mental health programs. Elizabeth Castro will conclude the section with Chapter 6's discussion of post-secondary educational opportunities for Inuit youth, specifically the potential establishment of an Inuit University.

The third section of the report focuses on the developing economic and legal structure of the Arctic as a region. Chapter 7, written by Jordan Habenicht, centers on economic development policies in the Far North, specifically how to promote viable economic development of Indigenous communities, without relying solely on resource extraction. In Chapter 8, Michael (Mac Zelle) discusses the need to establish an Arctic Ocean Treaty that will effectively govern commercial actions in the Arctic, settle maritime boundary disputes, and implement harmonized regulations for the protection of the Arctic ecosystem.

The fourth section of the report focuses on the future of security and cooperation in the Arctic. Kyle Wheeler, in Chapter 9, discusses the strategic significance of the Arctic region, as well as how different Arctic nations perceive their own sovereignty and threats thereof. Chapter 10, written by Jake Creps, will also discuss Arctic security, but from the perspective of search and rescue (SAR) capacity and cooperation, with an emphasis on Russian affairs.

The final section of the report (Chapter 11), written by Ivalene Laohajaratsang, focuses on the future of the Arctic Council, in terms of its functioning and organization. She speaks to both the advantages and the disadvantages of the non-binding nature of the Council and how its reformation is necessary for bringing forth meaningful changes in the future.

Jake Creps will conclude the report with our team's vision for the future of Arctic governance and the Arctic Council's role thereof.

NOTES

¹ "History of the Arctic Council." Arctic Council. September 2015. Accessed January 2016. <http://www.arctic-council.org/index.php/en/about-us/arctic-council>.

² *Declaration on the Establishment of the Arctic Council*. Report. Ottawa, 1996.

³ Carina Keskitalo. "International Region-Building: Development of the Arctic as an International Region." *Cooperation and Conflict* 42, no. 2 (June 2007): 187-206. Accessed 2016. Sage Journals.

⁴ Ibid.

⁵ Thomas S. Axworthy. "Changing the Arctic Paradigm: From Cold War to Co-Operation: How Canada's Indigenous Leaders Shaped the Arctic Council." *Yearbook of Polar Law* 5 (March 2013): 1-38. Accessed 2016.

⁶ Ibid.

⁷ Ibid.

⁸ *Iqaluit Declaration*. Report. Canada, 2015.

⁹ Piotr Graczyk, "Chapter 9: The Arctic Council Inclusive of Non-Arctic Perspectives: Seeking a New Balance." 1-46. *Proceedings of The Arctic Council: Its Place in the Future of Arctic Governance*. 2012.

¹⁰ Ibid.

¹¹ Ibid.

¹² Timo Koivurova. "Multipolar and Multilevel Governance in the Arctic and the Antarctic." *American Society of International Law* 107 (April 3, 2013): 443-46. Accessed 2016. : <http://www.jstor.org/stable/10.5305/procanmeetasil.107.0443>.

¹³ *One Arctic: Shared Opportunities, Challenges and Responsibilities*. U.S. Chairmanship Report. Washington D.C., 2015.

¹⁴ Ibid.

¹⁵ Oran Young. "Arctic Stewardship: Maintaining Regional Resilience in an Era of Global Change." *Ethics & International Affairs*, January 2013. Accessed 2016.

¹⁶ Ibid.

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PART I.

CLIMATE CHANGE IN THE ARCTIC

There is overwhelming scientific consensus that carbon dioxide emissions from the burning of fossil fuels are increasing average global temperatures.¹ Over the last century, there has been a 1.4 to 5.8 degrees Celsius increase in global temperature and temperatures continue to, “rise at a rate unprecedented in the existence of modern human society.”² Natural climate fluctuations have increased exponentially due to modern human activities, which in turn have led to an increased accumulation of greenhouse gases in the atmosphere. Global changes range from increased precipitation, ocean acidification, and desertification, to the melting of ice caps and glaciers. Threats to ecosystems and Arctic populations are mounting and human activities in the Arctic region are increasing.

There has been a remarkable growth in overfishing, air and water contamination, habitat destruction, and rising levels of ultraviolet radiation because of reducing ozone.³ The Arctic continues to be a region of critical importance because it provides climate regulation services for the Earth.⁴ The snow and sea ice reflect sunlight and permafrost traps large amounts of carbon dioxide. When ice and snow melt, reflectivity is diminished which further increases temperature as the Earth absorbs more sunlight. When permafrost melts, carbon dioxide and methane are released into the atmosphere further contributing to the greenhouse gas effect and adding to this vicious cycle. For this reason, the Arctic has been called the ‘canary in the mine’ as it continues to experience temperature increase at double the rate of the rest of the world.⁵ Because of this, it is critical that we learn as much as we can about climate change in the Arctic and the effects that resource extraction and pollution are having on the landscape and Arctic communities. The following chapters explore how the Member States, Permanent Participants, Observers and other working groups of the Arctic Council are mitigating the consequences of climate change, in relation to resource extraction, environmental pollution and future climate-induced refugees.

Beginning with the history of resource exploration in the Arctic, the first chapter will look at the ways in which the oil and gas industries have developed within the Arctic region. From the discovery of massive oil reserves in Prudhoe Bay, Alaska in 1969, many nations have had tremendous interest in the extraction of these fossil fuels for economic benefits. As more research

is conducted on the use of fossil fuels, it is apparent that continuing on this industrialized path will only further accelerate climate change and lead to the destruction of one of Earth's last pristine environments.⁶ The Arctic Council's position as a high-level intergovernmental forum can help develop strict and sustainable regulations pertaining to resource extraction that will ensure the future of the Arctic environment and the livelihoods of its peoples.

Focusing on pollution and mitigation, the second chapter of this section on climate change assesses the Arctic Council's strategies for dealing with the release of black carbon and methane in the Arctic landscape. With the onset of climate change and the environmental movement, pollution has become a major global focus as it affects everyone everywhere. From the Arctic Council's first meeting in 1996 and the signing of the Ottawa Declaration, pollution and mitigation thereof have been priority concerns. Black carbon and methane are short-lived climate forcers whose effects can be partially reversed if immediate steps are taken. Action by the Arctic Council and the rest of the world is required in order to slow the melting of ice and permafrost and prevent as much degradation as possible to Earth's unique habitats, communities, and species.

The third chapter of this section focuses on climate-induced displacement of communities in the North American Arctic. "Climigration", a term coined by Robin Bronen, describes the population displacement that results when entire communities are rendered uninhabitable due to climate change. This phenomenon is occurring in many communities worldwide, but is most critical in the Arctic where the effects of climate change are accelerated. The U.S. Government Accountability Office (GAO) found that 184 out of the 213 Native Alaskan Villages are at risk of becoming uninhabitable due to increased storm surges, erosion, rising sea levels, and melting permafrost. The problem of climate-induced displacement is severe and multilateral. It will require strong political will and international cooperation. The Arctic Council can play a key role in raising awareness on the topic and in the future funding of research.

CHAPTER 1

MAJOR OPPORTUNITIES & MAJOR RESPONSIBILITIES: THE FUTURE OF ARCTIC RESOURCE EXTRACTION

By Laura Heckenlively

Abstract

Fossil fuel dependency and the depletion of current oil reserves have forced industry eyes upon the Arctic for the untouched and undiscovered oil and gas fields predicted to lie under its ice. This chapter focuses on the first discovery of massive oil reserves in Prudhoe Bay, Alaska, the work toward resource regulations throughout the Canadian and U.S. Chairmanships, and the future feasibility of oil extraction under the Finnish Chairmanship in 2017. Oil companies, such as Norway's Statoil, Russia's Gazprom and Holland's Royal Dutch Shell Oil, will be analyzed for their current methods of oil extraction and their plans for future extraction, as renewable energy will eventually outlast fossil fuel use. As the Arctic Ocean warms and sea-ice melts, nations without Arctic holdings have begun to look north for development opportunities, insisting that the Arctic should be considered a 'global commons' for each company and industry to have access to. Policy recommendations, such as public-private partnerships between nations and oil companies, a new Arctic Council task force devoted to this issue, and non-Arctic nation investment in this industry, create a path for future discussion regarding the imminent issue of future oil and gas resource extraction. Resource extraction certainly has a place in the future, and the Arctic Council's ability to set restrictions on rampant extraction will aid the development of more eco-sensible energy sources.

I. Oil Discovery at Prudhoe Bay

At first aerial glance, the Arctic may seem like a barren, tundra landscape; however, the subterranean oil and gas fields constitute both massive amounts of economic benefit for industry as well as major sustainability issues for the environment. Looking toward the future, climate change and resource driven economic growth are two of the largest issues that will alter the path for future generations. Modern society has sprung from a pre-industrial past with the help of the discovery of fossil fuels, which ultimately powered the growth to society, as we know today. The safety of the environment and populations in risk areas are compromised by the continuous resource exploration, as carbon-based emissions (i.e. carbon dioxide and methane) accelerate the Greenhouse Effect. Climate change is accelerating the melting of ice that encompasses most of the Arctic and its ocean, giving rise to new efforts of exploration for oil and gas resources in this area. Experts have estimated that thirty-one percent of the world's remaining reserves of natural gas and thirteen percent of the world's remaining reserves of oil exist in these frozen waters.⁷ At the twenty-year mark, the Arctic Council, along with many

nations, has taken a stance against rampant resource extraction, insisting that environmental health come on the same bill as economic growth. As the globe warms and technology increases, oil and gas exploration and the depletion of resources pose a great risk for the continuation of modern society's growth.

Before looking into the Canadian Chairmanship accomplishments and priorities of the current U.S. Chairmanship, it is imperative to begin at the first major discovery of oil in the Arctic. American oil companies, ARCO and Humble Oil & Refining Company, began their path toward Arctic oil exploration several years before striking luck in Prudhoe Bay, Alaska. In fact, Prudhoe Bay was one of the last and furthest north for the company, before declaring that they would call off Arctic oil exploration. Sixty-five miles north of Susie Unit No. 1, their previous site, Prudhoe Bay was soon inundated with a drill rig in August 1966.⁸ By December of 1967, tests were hinting at a massive oil reserve sitting below their rigs, and several other test sites were drilled to confirm this finding. Three months later, flow data documented close to 1,150 barrels of oil per day and 1.32 million cubic feet of natural gas per day, clearly indicating that this oil field was a gold mine.⁹ In June 1968, the confirmation well for the Prudhoe Bay oil reserve allowed workers to begin celebrating, as they had successfully found the biggest oil reserve in North America. The test cores that confirmed the presence of oil below did not show the simple sheen of oil on rock; instead, the core consisted of "a pile of loose sand, gravel and oil – which immediately ran down through the derrick floor into the cellar below."¹⁰ This simple test changed history for the Arctic, as it signified the rich oil reserves that lay under the icy land and reinforced the interest that oil and gas companies had in this region. After completing several oil rigs in the Gulf of Mexico, off the coast of Texas, the discovery of oil reserves to the far north of the country excited extractive industries, as their future was now filled with dollar signs and continued profit.

From the first confirmation of oil in Prudhoe Bay, exploration into various other parts of this region exploded. Much of the undiscovered reserves sit under ice; however, as the climate warms, these predicted rich oil reserves will continue to be extracted. The United States Geological Survey has predicted that eighty-seven percent of the Arctic's natural gas and oil reserves are located in the Arctic's seven main basins, with the remaining undiscovered oil predicted to be in the land surrounding the Arctic Ocean.¹¹ The Amerasia Basin, Arctic Alaska Basin, East Barents Basin, West Siberian Basin, Yenisey-Khatang Basin, East Greenland Rift Basin and West Greenland-East Canada Basin are expected to contain close to 360 billion barrels of oil.¹² Figure 1 details the geographic locations of each of these fields.



Figure 1: Arctic Oil and Natural Gas Provinces Map

While most of the Arctic has not been properly explored for these predicted oil reserves, it can be expected that without environmental regulations, an ice-free Arctic will bring about a great amount of exploration and ultimately will continue the extraction of these precious reserves. While the Arctic is not completely made up of land, it is roughly six percent of the Earth's surface, approximately the same geographic size of the African continent.¹³ The icy ocean is predicted to hold nearly twenty-two percent of the Earth's oil and natural gas resources, making this six percent of the Earth's surface hold more economic benefit and environmental consequences.¹⁴ To date, most Arctic oil and gas exploration has occurred on land, with the exception of Statoil's oil exploration, which has taken place solely offshore.¹⁵

With more than two-thirds of the Arctic surface being water, the hopes for greater oil and gas reserves to be hidden under the ice are high.¹⁶ Alaska's Prudhoe Bay Oil Field and Russia's Tazovskoye Field have been the most successful fields since exploration began in the Arctic. The land portion of the Arctic, while it has been extremely successful in oil findings, is predicted to hold only about sixteen percent of the Arctic's remaining undiscovered oil and gases, making

the interest in offshore drilling intensify.¹⁷

The continental shelf that extends into the Arctic Ocean is Earth's largest unexplored geographic area, expected to contain massive reserves of oil and natural gas. The United Nations Convention on the Law of the Sea (UNCLOS), which was created between 1973 and 1982, sets the rules and restrictions for offshore activities specific to national boundaries. The rights and responsibilities of nations concerning the world's oceans are outlined in this document, allowing twelve nautical miles from the coastline to belong to each nation.¹⁸ The next two hundred miles are considered an exclusive economic zone (EEZ), which allows for each nation to have first priority over the goods in the waters.¹⁹ For the Arctic nations, the EEZ only brings commercial activity so far into the Arctic Ocean, leaving a majority of the ice-covered ocean unable to be explored. UNCLOS stipulates that any nation seeking activity further into the waters must prove that the continental shelf is an extension of their land. Currently, several Arctic nations have submitted bids to UNCLOS to verify their right to expand drilling and resource extract practices further into the Arctic Ocean.²⁰ The reality of climate change has impacted the interest in the Arctic as a future resource extraction site, especially as the increased global temperature has contributed to the sea ice melt occurring in the Arctic Ocean.

II. A Warming Arctic

Oil and gas discovery in the Arctic continued to fuel the American economic growth throughout the twentieth century, despite the cries of environmental activists arguing that harming the Earth ultimately harmed its people. The plea that economic benefit and environmental health are inherently tied together has been a constant in the past decades; however, in the eyes of industry, economic benefit seems to always outweigh environmental security for the future generations. As the environmental movement blossomed in the 1970s, so did the development of further Arctic drilling. With global warming occurring in the Arctic at almost double the rate of elsewhere around the globe, the typically frozen terrain is opening its borders with the help of the Anthropocene, the current geological age in which human activity has been the dominant influence on climate and the environment.²¹ Centuries of industrialization have trapped unheard levels of greenhouse gases, such as carbon dioxide, methane and water vapor, in the atmosphere, creating a thicker layer of insulation for the Earth. Heat from the sun is trapped in the Earth's atmosphere, continually heating the 'dark' parts of continents; moreover, the heat is accelerating the loss of Arctic sea ice, exposing more dark land, and ultimately accelerating global warming. This amplified feedback loop has led to an increase in the amount of sea-ice

mobility and a reduction of the amount of time sea-ice has to thicken.²² In fact, sea ice has thinned by a mean of 0.7 meters and the amount of multi-year sea ice decreased by forty-two percent from 2004 through 2008.²³ In terms of resource extraction, this makes the Arctic a continually more desirable area for fossil fuel companies that are facing harsh regulations and depleted sources in other oil rich areas of the globe.

As many nations began drilling for their own oil and natural gas reserves in the decades after the oil discovery at Prudhoe Bay, it became more apparent that with the massive economic opportunities came veritable risks of damaging the environment for future generations.²⁴ The acceleration of the Greenhouse Effect from society's continued use of fossil fuel energy, coming from the oil and gas extracted globally, has been tied to survival of human society in the future.²⁵ While human innovation will certainly beat out any global extinction, there are adaptations that must come in the form of policies, so that society can truly thrive in the coming decades of climate change.

III. Arctic Council Commitments to Sustainable Extraction

The beginning of true international governance in the Arctic came with the establishment of the Arctic Council, allowing for greater research in all areas concerning the Arctic and recommendations that ideally would manage the extreme interest in the opening Arctic region. The 1996 Ottawa Declaration states that the Arctic Council has a, "commitment to the protection of the Arctic environment, including the health of the Arctic ecosystems, maintenance of biodiversity in the Arctic region and conservation and sustainable use of natural resources."²⁶ As a starting point for the new Arctic Council, this ambitious mission began billions of dollars of funded research into the feasibility of continued Arctic oil and gas extraction, in relation to the health of the environment and the communities that depend on the northern land. While the Arctic Council has conducted an incredible amount of scientific research through the creation of working groups and task forces, nations themselves have funded independent Arctic research. Perhaps one of the most successful forms of Arctic research has come from the Fram Centre in Trømsø, Norway, which focuses on studying the management of environment and natural resources in the North.²⁷ The compilation of scientific knowledge regarding the Arctic allows policy makers to grasp a further understanding about the Arctic; however, there have been no true 'hard law' policies that have surmounted from these reports. Twenty years later, the Arctic Council met in Iqaluit, Nunavut to hand over the Chairmanship from Canada to the United States, and released a new declaration, which put more focus

towards sustainable development of the Arctic.

Sustainable development has become a buzz phrase of this new era in dealing with the changes to the environment due to climate change. The Iqaluit Declaration accepts that the changing Arctic requires, "commitment of the Arctic states and permanent participants to respond jointly to new opportunities and challenges in the Arctic" including affirming the true leadership of the council as it begins to take concrete action.²⁸ Throughout the twenty years of the Arctic Council, numerous scientific reports have concluded with the increased externalities the Arctic will face regarding climate change; furthermore, these reports have been accepted by the Arctic Council in the Iqaluit Declaration as fact, so that policy can move forward. As 'sustainable development' has gained popularity in the climate change discourse, it is important to note that the newest declaration "recognizes the importance of Arctic communities' access to clean, affordable and renewable energy alternatives", especially as the globe looks towards reducing greenhouse gas emissions.²⁹ For the highly undeveloped Arctic, climate change will affect the environment's availability to new investments and developments, thus prompting the necessity for sustainable methods of development. While the majority of the world is sustained by fossil fuels, renewable energy is currently considered to be the future of development, making the research and feasibility of these practices one of the largest priorities of nations and intergovernmental forums alike. Of course, renewable energy practices are only half of the equation as mitigating the effects of continued fossil fuel extraction remains to be a highly important task of the Arctic Council.

The Arctic Council's working groups further research in a specific area; Protection of the Arctic Marine Environment (PAME) works with mitigating the changes to the Arctic marine environment as the planet warms and the Arctic opens up to new interests. In the *Arctic Council Offshore Oil and Gas Guidelines Report* released in 2009, several recommendations for offshore activities during the, "planning, exploration, development, production and decommissioning to help secure common policy and practices" were made; however, this document, as many other Arctic Council reports do, consists of nonbinding recommendations.³⁰ This report specifically recognizes the nonbinding nature of the guidelines; however, hopes are that the findings and recommendations spur individual nations to require the highest standards currently available for continued extraction activities.

As resource extraction is a highly specialized practice, the risk for errors and accidents is very high; moreover, the risk for oil spills and contamination in the Arctic waters directly impacts the

livelihood of marine populations as well as indirectly affects the livelihood of Arctic communities.³¹ The recent push for pipeline installations encourages further investment by resource industries into the Arctic, as it holds the majority of undiscovered oil reserves. In the development and production of pipelines and rigs, there are the potential risks of oil blowouts and spills, which cause long and short-term seabed disturbances that could ultimately change the availability of fishing practices and sustenance.³² Other risks include the noise pollution of continued rig development, which would alter the way that marine mammals are capable of communicating, ultimately leading to a decrease in their population. The actual risks of oil drilling predominantly affect living resources, such as fish and marine plants; however, the impact to one level of the ecosystem most certainly alters the way that other ecosystem processes are able to function.³³ In Chapter Two of this section, Arctic pollution from black carbon and methane will be discussed, especially as the thawing of the Arctic ice furthers locked up pollutants.

Case Studies

While the risks of resource extraction constitute a massive issue to mitigate for the Arctic Council, the individual development of nations and companies in this industry ultimately are the key players. All Arctic Council Member States are currently or have been involved in Arctic oil and gas resource extraction in the past fifty years. This chapter will look at the Arctic oil and gas investments made by Russia's Gazprom and Rosneft, Norway's Statoil and the Netherland's Royal Dutch Shell Company. While other nations certainly have important roles in the Arctic resource extraction, case studies will be conducted on these three due to space restrictions. Looking at Russia provides a view of the actions of the largest geographic and most oil and gas dependent Arctic nation. While Royal Dutch Shell Company is not based out of an Arctic nation, their recent oil exploration and disintegration of investment in the Arctic circumpolar region is of interest to this industry. Finally, Norway's Statoil provides a look into the most environmentally minded oil company, complete with a plan for future generations that will especially have to live in a world affected by climate change. It is imperative to note that non-Arctic nations certainly have an interest to invest in the resources of this region. Specifically, China has made movements towards investing in Greenland's predicted oil, gas and Rare Earth Elements (REE) reserves.³⁴ However, due to space restrictions, China's role in the Arctic will not be discussed further. Ultimately, the following case studies will provide a brief look at the current oil and gas extraction activities taking place in Arctic, as well as providing a snapshot of these specific companies' plans for the future.

Fossil Fuel Development in Russia

In terms of Arctic geography, Russia constitutes nearly half of the land space in the region. With ample ability to conduct oil exploration, Russia's largest natural gas and oil exporter, Gazprom, was founded in 1989.³⁵ Gazprom holds the world's largest natural gas reserves, an approximate seventeen percent globally and seventy-two percent within Russia.³⁶ The company's main projects currently include extraction of gas resources along the Arctic Shelf, in Yamal Peninsula and in Eastern Siberia, all locations that are predicted to hold much of the Arctic's precious undiscovered reserves.³⁷ Uniquely, Gazprom is both an energy producer and supplier. The company's impact on the oil and gas market is remarkably large within Russia and the European Union, as it exports gas to more than thirty countries.³⁸ Gazprom's economic success paired with Russia's geographic placement allows for a potential link between Asia and European oil and gas markets, offering even more economic benefit to the fossil fuel industry. Another large Russian oil company, Rosneft, has conducted massive oil exploration in the Kara Sea in Western Siberia. The Kara Sea currently accounts for sixty percent of Russia's oil production, with production stemming from a Rosneft and ExxonMobil partnership that began in 2011.³⁹ The combination of these two massive fossil fuel companies has created an undisputable Russian influence on the market and the future continuation of fossil fuel development in the Arctic.

Despite Russia's intimidating geographic prowess, the nation continues to seek exploration rights through the United Nations Commission on the Limits of the Continental Shelf. In 2001, Russia submitted its first claim, consisting of the Lomonosov Ridge that the nation argued was an extension of the Eurasian continent. However, in 2002, the United Nations Commission requested that additional scientific evidence be presented, effectively ending this bid. In August 2015, Russia submitted another bid for the continental shelf in the Arctic Ocean, this time claiming Lomonosov and Mendeleev Ridge, which extends beyond the North Pole.⁴⁰ While the UN Commission investigates the bid, there will be ample discussion on which nation has continental claim over the North Pole, as Greenland/Denmark submitted a claim that clashes with Russia's in December 2014.⁴¹ The limitations of access to international waters set out by UNCLOS have kept much of the Arctic away from the eyes of developers and fossil fuel industries; however, as more nations continue to assert interest in the warming Arctic, environmental regulations become more important.

Fossil fuel companies in this environmental age must have a plan for the changing climate and

Gazprom is no exception. Most of Gazprom's priority site in Eastern Siberia is permafrost land, which is experiencing melt in the wake of global temperature increase. Environmentally, Gazprom aims to develop solely in the winter, so as not to open the land to summer heat and accelerate this process.⁴² One of Gazprom's greatest environmental commitments is for reclamation of contaminated lands that have accumulated during the past years. Regarding the likelihood of oil spills in continued exploration, Gazprom Group, "widely applies a plant-based treatment procedure", including planting grasses that have root structures ideal for hydrocarbon decay.⁴³ In 2013, Gazprom distributed their allocated funds for environmental programs with a majority (seventy percent) focusing on land protection. Atmosphere and water protection from gas or oil contamination is illustrated as the next level priorities, with fourteen percent and fifteen percent allocated respectively.⁴⁴ Rosneft has taken a much more limited approach to environmental commitment in association with the company's continued fossil fuel extraction. The Arctic Research and Design Center for Offshore Developments (ARC), based in St. Petersburg, has been the partnership's primary environmental commitment. The ARC has been appointed to solve all the tasks the company will face as they continue to develop continental shelf deposits.⁴⁵ While Russian objectives in the Arctic are clear regarding fossil fuel development, other non-Arctic nations have expressed similar interest in the warming Arctic.

Royal Dutch Shell Company

In 1886, the market for oil exponentially increased as the innovation of automobiles spread across the globe. By 1897, Shell Transport and Trading Company was created and almost a century later in 1907 merged with Royal Dutch Petroleum to create Royal Dutch Shell Group.⁴⁶ Shell Oil quickly became a global oil company, and one of the most profitable at that. The reason for including Shell in the discussion of Arctic fossil fuel development stems from the company's recent brief attempt at developing a presence in the Arctic region, in order to expand to new oil fields and grow their already global presence. In a speech given by Upstream International Director, Andy Brown in June 2013, Shell's interest in oil exploration was asserted to the global community. Brown states, "to meet the growing demand for energy, there will be a need to substantially increase investment levels and push innovation even further."⁴⁷ Shell Oil's exploration into the Arctic is a break in the pattern for Arctic oil extraction, as most companies that have investments in this region are based out of Arctic nations. Out of the several 'new frontiers' that Shell mentioned interest in, the Arctic is mentioned as a, "remote and environmentally-sensitive area" that is not new to Shell's interest.⁴⁸ Shell Oil had drilled in the Bering Sea and the Gulf of Alaska in the 1980s and 1990s, referencing the overwhelming

productivity as case evidence for its future further expansion into the Arctic Ocean.⁴⁹

Shell's exploration into the Alaskan oil fields restarted in 2012, and eventually came to a halt in 2013, as they planned to resume activity at a later stage in order to prepare equipment and plans.⁵⁰ Throughout the efforts to explore the possibility of Arctic oil, Shell Oil made it known that they would uphold environmental standards and regulations, in order to extract oil resources responsibly. Of course, rallying environmentalists saw Shell's pause in Arctic fossil fuel development as cause for furthering their campaign against additional Arctic oil exploration, developing an environmental rally-cry of "Shell No!"⁵¹ Shell Oil restarted their development plans for the Arctic by transporting an oil rig through the Seattle harbor, only to face thousands of angry environmentalists on kayaks blocking entrance to the harbor. Despite the public protest, the drilling rig made the journey to the Arctic. In September 2015, Shell Oil announced that its plans for offshore oil development would be shutting down, costing the company more than seven billion dollars of investments. While oil was discovered in the exploration well, the quantity was simply, "not sufficient to warrant further exploration" in the Arctic region.⁵² The disintegration of Shell's presence in the Arctic was not a completely environmental decision. As oil prices have continually dropped since January 2014, most companies have limited or stalled their resource extraction activities, as they await the return to higher market prices. Shell Oil has completely pulled out of the Arctic, and has halted any foreseeable future exploration activity. The lack of an established presence in the Arctic for Shell certainly has inspired the complete removal of their oil rigs, despite the extreme monetary investment in this endeavor. This decision differs from many other companies that are invested in the Arctic, as the slow and steady warming of this region has claimed interest in the undiscovered reserves. While Shell Oil's absence in the Arctic is not indicative of other companies leaving the region anytime soon, it certainly emphasizes the role that low oil prices have on the continued exploration into the Arctic, despite the wealth that is predicted to sit just below the ice.

Fossil Fuel Development in Norway

The discovery of massive oil reserves is often correlated with a high level of corruption in government; known as the 'resource curse', this idea states that oil is immensely profitable and causes a high influx of money that often is spent rapidly. As the world's fifth largest oil exporter with annual revenues reaching extremes of \$40 billion, Norway has successfully discovered oil and simultaneously developed a highly diversified economy that pays its workers well.⁵³ Additionally, Norway keeps the oil wealth in a Sovereign Wealth Fund, which has regulations

stating that a mere four percent annually can be spent; ultimately, the fund is to sustain Norway's population after the depletion of oil reserves, as fossil fuel use is declining in popularity.⁵⁴ Currently, the fund is worth about \$800 billion U.S. dollars, enough to make every citizen a millionaire, in the country's currency.⁵⁵ Norway's oil exploration and extraction has avoided the resource curse with an incredible plan for saving the profits of oil extraction for the future generations that will have to experience the worst externalities of climate change. The plan that Norway has created for oil and gas extraction is the most environmentally minded and focused on climate change, as it takes into account planning for future generations that will have to deal with the consequences of continued fossil fuel development. While Norway's plan is specifically designed for its homogenous, small population, the environmentally conscious approach to continued resource extraction is of importance as other nations begin their plans for the warming Arctic. Before the discovery of oil by the Ocean Viking on August 21, 1969, the standard of living was about 30 or 40 percent lower than in other Scandinavian nations.⁵⁶ As expected, the initial discovery of oil created a huge economic boom and consequently, the towns that were most profitable experienced massive population booms as well. Since 1969, Norway has commissioned seventy oil platforms from the southern tip to the Polar North, all which belong to Norway's majority state-owned oil company, Statoil or various other foreign investors.⁵⁷

Statoil, an integrated oil and gas company based in Norway, has been tremendously successful in extracting oil and gas resources from the Barents Sea basin, one of the seven largest oil fields in the Arctic Ocean. While Norway's Ministry of Foreign Affairs prioritizes mitigating the consequences of further fossil fuel dependency, Statoil clearly declares that oil and gas will continue to be, "society's most important energy sources for many years."⁵⁸ Created in 1972, Statoil was crucial after oil discovery in 1969; following the creation, the Statfjord field was discovered in the North Sea, prompting a larger responsibility and assured future in continued resource extraction. Statoil's oil discoveries set Norway on a path that would create an industrialized state and eventually a massive oil power in an oil market that was mainly dominated by Middle Eastern nations. Arctic oil investments began to skyrocket after the Prudhoe Bay and North Sea discoveries, making oil a wise investment for any nation seeking a boost onto the ladder of development. In the last few decades, as environmental concerns have become apparent to a larger audience, Statoil has shifted its oil exploration stance, stating that they, "aim to meet the demand for energy which is necessary for further economic and social development, while showing consideration for the environment and making an active effort to fight climate change."⁵⁹ Norway and Statoil's commitment to furthering the massive

economic and social development of their nation as well as showing support for the environment is an imperative model for the future of climate change. The public-private partnership of Norway and Statoil has allowed for the incredible achievements for the nation economically in the last few decades, while the commitments for the future share an environmental awareness that can shape a more stable globe for generations to come.

IV. Policy Recommendations & Concluding Remarks

While the Arctic certainly will become a key region for development in the coming decades as climate change opens the region to international interests, a set of policies or regulations must be developed to ensure the health of the region remains the highest priority. The Arctic Council's position as an intergovernmental forum lends itself as a regulating power that can designate stricter policies regarding oil and gas resource extraction. During Canada's Chairmanship, from 2013 to 2015, responsible resource extraction was addressed in a manner that makes further research necessary to understand what is at stake for the environment. Moreover, the Iqaluit Declaration, released at the end of their Chairmanship, expands on resource extraction much more than the establishing declaration of the Arctic Council, illustrating the importance that this issue has in modern society.⁶⁰ The current Chairmanship, held by the United States until 2017, plans to further research on resource extraction, as the overarching security in the Arctic includes this massive industry sector.⁶¹ Scholars involved in the discussion of resource extraction in a warming Arctic have proposed several different recommendations; however, the most feasible are perhaps the simplest.

Policy Recommendations

1. Partnership between nations and private oil companies
2. Establishment of a single task force that has a sole focus on developing strict environmental regulations regarding resource extraction.
3. Ensure that the Arctic is available to the companies that have the most sufficient technology for responsible extraction

The first recommendation for continued resource extraction involves a partnership between nations and private oil companies. This recommendation is originally put forth by Heather A. Conley, Senior Fellow and Director of the Europe Program at the Center for Strategic and International Studies in Washington, D.C.⁶² Further oil exploration and potential extraction

threatens the local Arctic communities as well as the overarching health of the Arctic's fragile ecosystem, thus requiring more research be conducted on these issues. The development of further research data, assessing the needs of at risk communities and development initiatives, and the building of international networks will all require a partnership to be formed with the national governments and the large private corporations in the resource field⁶³. Interest in the Arctic by private companies is not new; however, utilizing their position as separate from the governance structures of nations can benefit the economic sector while adhering to strict environmental regulations set forth by nations. Environmental regulations that are created by nations stem from the overwhelming amount of research conducted on the Arctic region, as it pertains to the environmental health in this period of warming temperatures. In this recommendation, private companies would have to work in tandem with the nations to ensure that economic development, resource development, and environmental health all remain equal priorities.

The second recommendation comes in establishing a single task force that has a sole focus on developing strict environmental regulations regarding resource extraction. Looking at the Arctic Council's continued commitment to ensuring that resource extraction is done in a responsible manner, as outlined in PAME's Offshore Oil and Gas Guidelines Report and the goals of the Sustainable Development Working Group (SDWG), illuminates an issue of enforcement and action based on these recommendations. Resource extraction has yet to be addressed in a concise manner; in fact, the Arctic Council's stance on future resource extraction must be pulled from several different reports, all coming from different Working Groups and task forces. While the SDWG, PAME, and Emergency Prevention, Preparedness, and Response (EPPR) all have sections of their reports dedicated to restricting rampant resource extraction, a single task force dedicated to understanding the oil and gas industry's place in the Arctic is vital. The vast amount of scientific research that has been conducted on the future of oil and gas exploration is an achievement on its own; however, allowing a single task force to compile that work into a better functioning group summary or recommendation would allow the facts asserted to be understood comprehensively. That is not to say that in the past twenty years, the Arctic Council's commitments to responsible natural resource extraction have been limited; however, by allowing a single task force to develop regulations that can and should be applied by individual nations, perhaps recognition of environmental costs in economic development can be better understood.

The third policy recommendation stems from non-Arctic nations' involvement and interest in the

warming Arctic. While the Arctic holds a vast amount of the undiscovered oil and gas reserves, it is imperative that the Arctic is available to the companies that have the most sufficient technology for responsible extraction. The Arctic Council's structure consisting of Member States and Observers inherently keeps non-Arctic nations in conversations regarding the Arctic, thus making a case for this third policy recommendation. While the majority of all oil and gas extraction and exploration has been done by Arctic nations thus far, allowing a non-Arctic nation to invest and extract reserves responsibly could set the stage for further international cooperation. The Arctic's rapid warming has made it a region of immense focus and keeping Arctic natural resources for designated use by only bordering nations could foster conflict. The second part of this recommendation is to allow coalitions between nations that have substantial research and technology development in environmentally friendly extraction. This recommendation is not asserting that the Arctic should be a 'global commons' by any means; in fact, it is keeping the environmental health of the Arctic as a main priority by insisting that extraction should take place by nations that have the most research to keep the Arctic region as pristine and healthy as possible.

Throughout this chapter, a closer look at oil and gas resource extraction in the Arctic has been conducted to foster policy recommendations that are fully informed of the current holdings in the region while asserting the massive impact climate change has on this industry. The companies that have extracted these resources from the fragile environment of the Arctic in the past century have done so due to the immense dependency that modern society has on fossil fuel energy. Environmentally, the Arctic is an extremely important ecosystem due to its climate regulation role for the rest of the globe, prompting a serious discussion about the future of the resource extraction industry in the continually warming Arctic. Climate change will continue to melt the Arctic ice-covered region and companies will continue to look north for new opportunities. Ultimately, the Arctic Council can ensure a continued growth pattern for modern society while protecting the pristine environment of the North, by implementing stricter environmental standards and continuing research on this issue.

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CHAPTER 2

BLACK CARBON & METHANE: MITIGATION & PREVENTION IN THE ARCTIC

By Kelsey Brewster

Abstract

The Arctic landscape is being transformed by climate change and with the rate of warming occurring around the globe, drastic changes to ice and permafrost are inevitable. International institutions possess the power to reverse pollution and control its output, and if the necessary steps are taken now, the Arctic stands a chance of surviving. As short-lived climate forcers, black carbon and methane pose some of the strongest threats to the melting of the Arctic. With proper cooperative action on the part of the Arctic Council, steps can be taken in order to mitigate pollution. The most recent 2015 Iqaluit Declaration outlines the Arctic Council's commitment to reducing emissions of black carbon and methane and provides a "a clear and compelling basis for further action on short-lived climate forcers in the Arctic and beyond".¹ Throughout the course of this chapter the efforts of the Arctic Council and its Member States, Canada, the United States, and Finland will be assessed in their efforts to address black carbon and methane emissions. In order to ensure the Arctic environment's survival, binding agreements need to be created in order to prevent excessive pollutants from overwhelming the earth's atmosphere, renewable energy technology needs to be explored and implemented across Arctic communities, and lastly, there needs to be better regulation of the oil and gas industry in the circumpolar region.

I. The Arctic Council: Commitment to Mitigating Climate Change

The pristine image of the Arctic is slowly deteriorating as polluting practices become more prevalent throughout the globe, and as human presence in the Arctic region is becoming increasingly more common. Pollutants like black carbon and methane only add to the effects of climate change. This is not to say that pollution in the Arctic has never occurred, because it was rampant before the onset of the environmental movement in the form of nuclear waste dumping and oil spills. This is in part due to the lack of scientific research and understanding of how pollutants function in nature. As an international and intergovernmental forum, the Arctic Council has a clear commitment to dealing with climate change and its effects in the Arctic Region. The eight Member States, many of which are powerful and influential nations, have given their consent to preserving the Arctic and its environment. As the founding declaration of the Arctic Council, the 1996 Ottawa declaration also saw the implementation of the Arctic Monitoring and Assessment Program (AMAP) and the Conservation of Arctic Flora and Fauna (CAFF) as programs for the Arctic Council to oversee.

Established in 1991, AMAP is one of the six Working Groups of the Arctic Council and it is mandated to monitor pollution and climate change in respect to the status of the Arctic region. AMAP additionally documents the effects of increasing activity in the Arctic within ecosystems and humans and proposes solutions to threats it uncovers and recommends these to governments.² AMAP has produced assessments on both black carbon and methane as Arctic climate forcers, and has provided analysis and recommendations for their mitigation. Both studies were completed in 2015 and represent a significant accomplishment for the scientific research done by the Arctic Council in regards to pollution and its effect on climate change. CAFF is also a Working Group within the Arctic Council that concerns itself with conservation of and cooperation on species, habitat management, and regulatory decision-making thereof.

In addition to AMAP and CAFF, the Arctic Contaminants Action Program (ACAP) is also a Working Group of the Arctic Council that turned into a permanent 6th edition in 2006. The purpose of ACAP is to completely eliminate emissions of pollutants in the Arctic through the implementation of national actions.³ ACAP has four Expert Groups, one of which is an Expert Group on Short Lived Climate Pollutants (SLCP). It was developed to reduce pollution in the Arctic. SLCP's primary mandate is to focus on black carbon contamination and activities that reduce its emissions and deposits in circumpolar region.⁴ Another Expert Group is on Indigenous Peoples Contaminant Action Program (IPCAP), which aims to reduce the impact of pollutants in Indigenous communities, was formed in 2010. ACAP has also created a Black Carbon Case Studies Platform from which to showcase projects or policies concerning mitigation relevant to the Arctic. International cooperation along with the ongoing efforts of the Arctic Council to monitor and control black carbon and methane emissions are key to lowering local warming in the Arctic in the future.

These three Working Groups, AMAP, CAFF, and ACAP are a part of the accomplishments of the Arctic Council to address climate change and environmental pollutants in the circumpolar region. Technologies like wind, solar, and geothermal energy offer durable solution for Indigenous and Arctic communities to decrease their reliance on polluting fossil fuels like diesel, which contributes greatly to the release of black carbon in the circumpolar region. Some of the success stories of mitigating black carbon release have taken place in Alaska, Sweden, and Canada.⁵

ACAP: Black Carbon Case Studies

In Alaska, multiple cases of black carbon mitigation have taken place in Kodiak, Ferry, and Chena. On Pillar Mountain in Kodiak, an integrated wind-hydropower-diesel system was created to provide the community of Kodiak Island "with almost 100% renewable and reliable energy".⁶ This project, completed in 2014, represents a model for increasing the use of wind power in areas like Kodiak Island that are remote. Kodiak Electrical Association (KEA) is responsible for installing the wind turbines with the intention of cutting diesel fuel, a major producer of black carbon, consumption by 930,000 gallons. Since the installation of the first turbine in 2009, the town has saved 7,255,345 gallons of diesel.⁷ A similar project took place at the largest and most northern wind farm in Alaska, Eva Creek Wind Farm in the remote town of Ferry. The wind farm is an example of a successful project in a remote location, and even though the cost of implementing the project and building turbines was significant, the operation is projected to provide more than 9,100 Interior Alaska homes with renewable energy each year. The wind farm is also expected to save \$4 million in electricity costs for Gold Valley annually and reduce its oil dependency, in terms of diesel fuel, by 1.3 million gallons in the first quarter of operation.⁸ In Chena Hot Springs in Chena, Alaska, the first Alaskan geothermal energy plant was installed in 2006. United Technologies Corporation (UTC) created the generators used to produce electricity along with state and federal agency assistance, and when they were installed in 2006, they annually displaced 150,000 gallons of diesel fuel.⁹ These hybrid systems of clean energy represent a huge step forward for Alaska's move towards renewable energy.

Elsewhere, like at the Diavik Wind Farm located in Diavik Diamond Mine in Canada, the world's biggest wind-diesel hybrid power facility operates. The building of the wind farm used no government funding and before 2013 the Diavik Diamond Mine used approximately 40 to 50 million litres of diesel fuel per year, which amounted annually to almost \$70 million.¹⁰ With the incorporation of wind power, it is projected for greenhouse gas emissions to decrease by roughly 12,000 tons or 6 percent of emissions from the mine.¹¹ A notable aspect of the project is the blade de-icing technology, which allows the turbines to function in temperatures down to minus forty degrees Celsius. This means that wind power is a feasible and real option for Arctic communities to access and reduce their dependency on fossil fuels and decrease their emissions.

In Pieta, Sweden, solar energy has been put to the test to see if it a viable technology to be used in the Arctic alongside wind power. Norway and Sweden collaborated on a project using

photovoltaic panels to generate solar power near the Arctic Circle in Pieta, one of the sunniest locations in Sweden. The project concluded that there is significant potential for solar power, and that the solar facilities in Pieta can compete with those in Germany, a leader in the use of solar technology.¹² If solar panels were to be implemented in more Arctic communities, since they were found to be technically and economically applicable in the Arctic environment, then polluting emissions could be dramatically decreased.

II. Short-Lived Climate Forcers: Black Carbon & Methane

Black carbon and methane are short-lived climate forcers (SLCFs), and while both are mainly anthropogenic, methane is a naturally occurring gas as well. SLCFs are climate warming pollutants that have a brief lifespan in the atmosphere which can range anywhere from a couple of days to a number of decades. The atmospheric lifetime of black carbon ranges from days to weeks whereas methane can exist in the atmosphere for 12 years. Black carbon and methane make up two of the main SLCFs that contribute greatly to the anthropogenic greenhouse effect by absorbing energy and transforming it to heat. SLCFs not only warm the climate but they are also air pollutants and hazardous to human health, ecosystems, food security, and agriculture.¹³ They inflict changes on weather patterns and they increase snow and ice melting, especially in sensitive regions like the Arctic.

Black Carbon: A Potent Pollutant

As a main ingredient of soot, black carbon results from the incomplete combustion of biomass and fossil fuels. Black carbon is always a co-pollutant of another emitted particle and is a result of different sources including resident biofuel or coal cooking. The Arctic Council Task Force on Short-Lived Climate Forcers reported that:

“The largest black carbon emission sources in Arctic nations are forest burning and wildfires, and on-road diesel vehicles, followed by residential burning, off-road diesel and stationary diesel engines, agricultural burning, and industrial combustion.”¹⁴

This warming pollutant can be transported around the earth, and when it lands in the Arctic its effects are twice as potent. Aerosols containing black carbon can lead to the formation of a haze layer in the Arctic that rests over snow, a highly reflective surface, and results in warming.¹⁵ When the particle is deposited onto snow and ice, it lowers the albedo of the reflective properties of the white Arctic landscape, and accelerates melting. Melting ice and snow leads to the exposure of dark surfaces underneath and the cycle of warming continuously

perpetuates itself. Black carbon is widespread throughout the Arctic region, and research is ongoing to determine how high its concentrations are in certain areas.

Methane: A Growing Leak

Methane is a major anthropogenic source because sixty percent of emission is a result of human activities.¹⁶ Sources of methane include fossil fuels, livestock production, agricultural cultivation, waste treatment, and natural release in the environment. Methane is over eighty times more powerful than carbon dioxide because of its higher warming probability.¹⁷ It serves as the main precursor to tropospheric Ozone, a major air and climate pollutant.¹⁸ Ozone's atmospheric presence will only increase if the release of methane continues. Reductions in the release of methane anywhere around the earth contribute to decreased levels of it in the atmosphere since it is a "globally well-mixed greenhouse gas".¹⁹ Its' lifetime in the atmosphere is long enough to allow it be dispersed equally throughout the troposphere. Lowering the concentrations of methane also depends on controlling natural methane sources in the Arctic. Warming temperatures could potentially affect known vast reservoirs of methane and organic carbon located on land in soil and lake sediments as well as in the seabed of the Arctic Ocean.²⁰ As a forceful greenhouse gas, methane has a recognized possibility for dramatically increasing the release of pollutants in the Arctic with the decomposition of permafrost.

AMAP Assessment 2015: Black Carbon & Methane as Arctic Climate Forcers

AMAP has produced Expert Groups on methane and black carbon, resulting in in-depth, scientific assessments of the two pollutants. These assessments provide recommendations for dealing with SLCFs, as well as an outline of their monitoring achievements in the Arctic and their effects on the Arctic environment. Recommendations address black carbon emissions as well as continuing monitoring efforts and the integration of different networks for observing black carbon distribution in the atmosphere. These various networks include working with International Arctic Systems for Observing the Atmosphere (IASOA) and the World Meteorological Organization – Global Atmosphere Watch (GAW - WMO). By expanding observations networks of black carbon, SLCF measurements can be increased to include more parts of the Arctic, especially in eastern parts where measurements are lacking. The black carbon Expert Group also calls for "an open access policy and common archiving/formatting, including relevant metadata, for Arctic measurement data," which would allow for more global input of emissions of black carbon.²¹ The recommendations listed for reducing methane emissions include further

research and monitoring as well. The Methane AMAP Assessments calls for “increased ground-based monitoring of natural methane sources” because the current ability of monitoring methane fluxes in the Arctic is limited. The Methane Expert Group recommends more areal coverage as well as better infrastructure of research sites.²² The Assessment also asks Arctic nations to make important contributions to uncertain emissions estimates by giving support to existing networks of measuring methane. Key findings in both assessments suggest that black carbon emissions need to be recognized as a global issue, and input from Arctic nations regarding their emissions needs to be coordinated, processed, and combined in a clearer manner. The black carbon and methane assessments also mainly provide recommendations concerning the evaluation and collection of emissions. They focus on enhancing research and data to improve global knowledge of emissions and their effects rather than focusing on strategies for implementing clean technology or renewable energy.

III. Arctic Council Chairmanships: Past, Present & Future of Pollution Policy

The Canadian Chairmanship: Practicing Pollution Policy

The recent Canadian Chairmanship of the Arctic Council from the years 2013-2015 saw increased changes concerning the treatment and research of pollution in the Arctic. Curbing pollution and controlling its output is vital to the state of the Earth and various exacerbated environmental factors that affect the entire globe. A Task Force on Black Carbon and Methane (TFBCM) was created during Canada's time as Chair in order to achieve reductions in emissions of these pollutants. While not the main focus of the Canadian chairmanship, environmental protection was still addressed and Working Groups', specifically AMAP and ACAP, achievements were assessed in the 2015 Senior Arctic Officials' Report to Ministers.²³ This summary report discusses the achievements of the Arctic Council during Canada's chairmanship 2013-2015 and future actions for the U.S. Chairmanship from 2015-2017.

Canada's achievements include reduction of black carbon in the Russian Arctic by addressing the use of diesel and dealing with its sources. ACAP was able to assess that antiquated Russian off-road and on-road vehicles were the main sources of black carbon emissions in the Murmansk Region of Russia. A project was then completed and resulted in a ninety percent decrease in emission through upgrading vehicles, trucks and buses to Euro V standard.²⁴ Besides black carbon and methane, other progress involving pollution in the Arctic was made. Strides were taken in the Task Force on Arctic Marine Oil Pollution Prevention, which aims to control shipping

and petroleum activity in Arctic waters as well as reduce the risks associated with the transportation of heavy fuel oil. Additional projects on Mercury and Dioxins/Furans were prepared by ACAP focusing on emissions in the Russian Arctic.

Under the Canadian chairmanship, CAFF was able to successfully address Arctic biodiversity and ecosystems.²⁵ CAFF created a working plan for conservation in the Arctic, *Actions for Arctic Biodiversity 2013-2021* (AAB), which offers recommendations and policies in order to reduce climate change in the Arctic and promote conservation practices. The following are recommendations concerning climate change, and specifically black carbon and methane, listed in the report:

- Negotiate an Arctic Council Framework for Enhanced Action on Black Carbon and Methane.
- Hold a workshop on the reduction of black carbon emissions from residential wood combustion in the Arctic that identifies voluntary actions to reduce emissions.
- Prepare scientific assessments on black carbon and tropospheric ozone and on methane assessment on short-lived climate forcers including on black carbon, tropospheric ozone and methane.²⁶

The AAB is an accompanying report highlighting the recommendations from the first report on the current condition of ecosystems and biodiversity in the Arctic, the *Arctic Biodiversity Assessment* (ABA).

The Arctic Council's TFBCM's aim is to provide advice on how to deal with short-lived climate pollutants and its foundation can be linked to previous research done by the Arctic Council through the Task Force on Short Lived Climate Forcers, AMAP, and ACAP. At the end of its six meetings, the TFBCM successfully created an Arctic Council Framework for Action on Enhanced Black Carbon and Methane Emissions Reductions. Yet, this Framework does not represent a legally binding call to action for the Arctic States. Instead, the Arctic Council calls for collective action and asks Arctic Council Observer states to participate in sharing their national reports and policies relating to their black carbon and methane emissions reductions.²⁷ As stated directly in the Framework for Action, Arctic States commit to:

- develop and improve emission inventories and emission projections for black carbon using, where possible, relevant guidelines from the Convention on Long-Range Transboundary Air Pollution (CLRTAP) and improve the quality and transparency of information related to emissions of black carbon;

- enhance expertise on the development of black carbon inventories, including estimation methodologies and emissions measurements, by working jointly through the Arctic Council and other appropriate bodies; and
- continue to improve anthropogenic emission inventories and projections for methane, as reported to the United Nations Framework Convention on Climate Change (UNFCCC).²⁸

The submission of a report to the Arctic Council Secretariat will also be made available to the public. The Framework attempts to combine the efforts of the Arctic States, Permanent Participants, and Observers in improving black carbon and methane emissions by encouraging continuous mitigation. The efforts to enhance collective action include the continuation of science, research, and monitoring throughout the circumpolar region. Increasing awareness is an additional priority, and Arctic States pledge to heighten international awareness of these pollutants especially in Observer States and various States who could possibly impact the Arctic region with their emissions.

If policies to reduce anthropogenic black carbon and methane emission are implemented, then future emission rates are projected to fall.²⁹ The following image from the AMAP Assessment on Methane shows a projection of the future increase in global methane emission if no policy incentives concerning climate change are enforced, and the projection of future methane emissions if they are enforced.³⁰

The image below represents two alternative futures for the state of the Arctic environment. Later in this chapter, I will provide policy recommendations, and this image represents the resolve of the Arctic Council to improve pollution policy. As Arctic Council members, Arctic nations support a decrease in emissions, yet whether or not this projection is achieved is up to the individual nation's resolve to mitigate pollution.

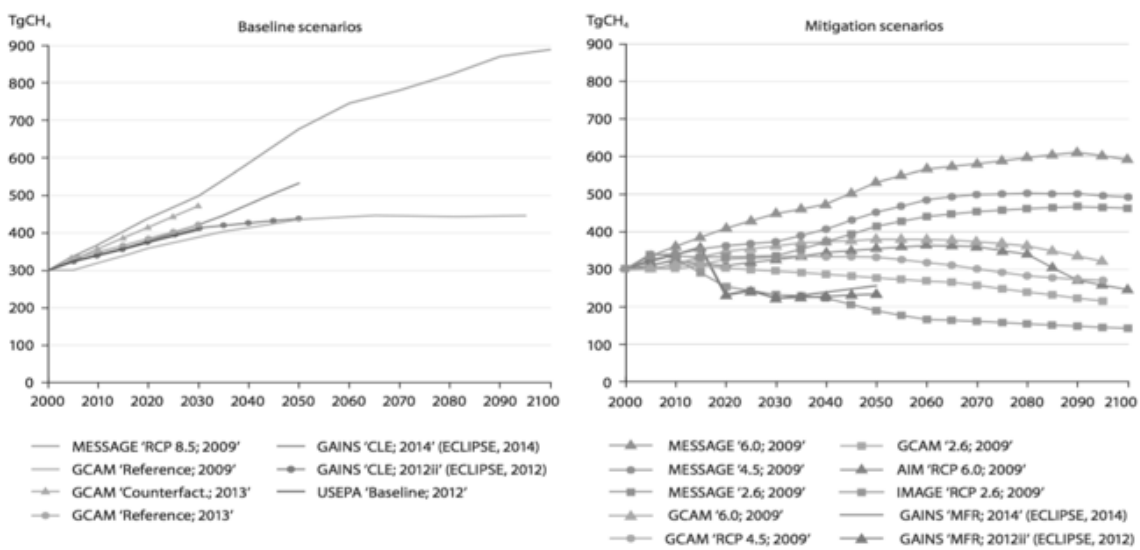


Fig. 5.2 Scenarios of future global anthropogenic methane emissions by different integrated assessment models (IAMs). Baseline scenarios with no further policy incentives implemented to reduce emissions (left) and mitigation type scenarios with policy-driven emission reductions (right).

The American Chairmanship: Current Control of the Arctic Council

The U.S. is currently chairing the Arctic Council for the second time since The Council's inception in 1996. The United States has outlined that the highlights of their time as Chair will include addressing the Arctic Climate, focusing specifically on short-lived climate pollutants through the reduction of black carbon and methane emissions.³¹ By the end of 2016, the United States has summarized, in their Implementation Plan for the National Strategy for the Arctic Region, that they will “strengthen assessments of black carbon emissions that affect the Arctic and implement efforts to reduce harmful emissions”.³² These black carbon reduction efforts include developing policies to negotiate a black carbon reductions framework within the Arctic Council, completing a working demonstration project using technologies to reduce emissions, developing a national black carbon emission inventory, and submitting recommendations to reduce black carbon emissions to the International Maritime Organization.³³ These efforts are to be complete by the end of the U.S. Chairmanship of the Arctic Council in 2017 and the leading agency for these changes will be the Environmental Protection Agency. The Implementation Plan for the National Strategy for the Arctic Region does not mention methane, although the United States has committed to reducing methane emissions.³⁴

The AMAP of the Arctic Council have assessed “that Arctic nations are responsible for 10% of global black carbon emissions. The United States and Russia are in total responsible for 90%, or

600 gigatons per year of black carbon emitted from Arctic nations".³⁵ As one of the main emitters of black carbon, the United States has even more of a responsibility to lessen climate change. The United States as the current chair should be continuing the efforts of AMAP and ACAP to research the effects and find solutions to mitigating black carbon and methane.

The Finnish Chairmanship: Future Conservation & Cleantech

As the next Member State poised to take over the Arctic Council Chairmanship from 2017-2019, Finland is eager to implement their strategies to further the Arctic environmental agenda. In Finland's Strategy for the Arctic Region 2013 they state that they will "increase the visibility and weight of the climate change issues affecting the Arctic region" by supporting projects to mitigate the emission of SLCFs affecting the North, with a specific focus on black carbon. Finland's commitment is also to decrease Finnish emissions of pollutants. The following statement can be found in Finland's Strategy for the Arctic Region 2013, and covers the actions they will be taking which will reinforce their commitment to environmental stewardship: "Take active part in the cooperation to promote the protection of the Arctic environment and the prevention of pollution both locally and globally. Support actions to monitor the state of the environment and the generation of environmental data, and to maintain an efficient monitoring network to ensure that up-to-date data are available to support decision making."

This commitment involves the development of clean technologies and sustainable energy use. Finland views the increasing activity and growing industries in the Arctic as opportunities to perfect and develop Cleantech solutions.³⁶ As one of the greenest countries in the world, Finland is the world's top researcher in the environment and energy field with 130 Cleantech companies devoted to sustainable energy, and 1,600 Cleantech companies in total.³⁷ Finland aims to promote Cleantech expertise and support its exportation to other countries, including Russia.³⁸ This could result in reductions in global emissions of black carbon and other pollutants responsible for climate change. Finland plans to "Create a Team Finland concept identifying concrete measures to enable and support the growth of the Arctic Cleantech business".³⁹

Nunavut: Recognizing Clean Energy Potential

Elsewhere in the Arctic, cleaner technology is also a priority, especially in the Indigenous communities of Nunavut. As recognized by ACAP's Black Carbon Case Studies Platform, renewable energy is being developed and proving successful in the Arctic region. The Platform

showcases various projects taking place across the Arctic in places like Alaska, Canada, and Sweden. Unfortunately, dependence on fossil fuels is still common in the Arctic, especially in Nunavut where the use of fossil fuels powers heating, electrical, and transportation demands.⁴⁰ Fossil fuel dependency prevents communities in Nunavut from being self-sufficient as well as creating negative implications for their health, social well-being, and environment. Not only would a switch to renewable energy lessen the economic strain on the annual government budget, but it would also cut emissions of black carbon from diesel use.⁴¹ In order to enable communities in Nunavut to develop energy independence as well as decrease emissions of diesel is to incorporate projects for renewable energy technology (RET). Wind turbine testing done by Qulliq Energy Corporation (QEC) has already been tested in three communities, yet barriers to implementing RET throughout Nunavut still exist. A lack of initiatives by the government has resulted in the a lack of RET development, even though interviews conducted in Nunavut communities expressed extreme interest in RET.⁴²

Nunavut's diesel dependency is an economic drain as well as environmental hazard. Diesel spills have led to degradation of the soil and contamination of wildlife, two occurrences which conflict with Inuit culture and the ideologies of environmental respect and protection.⁴³ Diesel emissions in Nunavut have also been linked to decreased air quality and increasing rates of asthma in Indigenous communities. Climate change is also a victim of diesel fuel burning, which releases greenhouse gases that increase warming. Nunavut offers natural resources through which RET can be developed; these include solar, hydro, and wind power. Solar photovoltaic technology involves the direct conversion of sunlight into energy, while the harnessing the kinetic energy of wind produces sustainable electricity.⁴⁴ These two energies are ideal for the geographic distribution of Nunavut's isolated communities since they can be generated near the areas where they are being used. Hydro energy on the other hand requires placement near a river, and most rivers in Nunavut freeze entirely in the winter. In order to implement these sustainable energy systems, community-based and government development is necessary.

IV. Concluding Remarks & Policy Recommendations

Black Carbon & Methane – Arctic Council Priorities

The Arctic Council's incorporation of AMAP and CAFF along with their creation of ACAP have led to in-depth scientific studies of pollutants in the Arctic. The AMAP assessments done on both black carbon and methane recommend increased participation from Arctic nations as well as

perfecting of ongoing efforts to monitor emissions.

Canada's role as Arctic Council chair from 2013-2015 was instrumental to the ongoing efforts regarding pollution and climate change. Over the course of their two years they created a Task Force on Black Carbon and Methane, reduced black carbon emissions in the Murmansk region of Russia, created the Actions for Arctic Biodiversity, and produced an Arctic Council Framework for Action on Enhanced Black Carbon and Methane emissions. There were many other achievements including strides in Indigenous rights, pollution, and others, but these are the main actions taken to curb black carbon and methane emissions in the Arctic.

In order to be an effective contributor to curbing climate change, the United States has the opportunity to implement various solutions to mitigating pollution, and this includes focusing in on specific technological and industrial sectors of the global economy. Since "Arctic sources of black carbon have been estimated to have a 10-100 times greater impact on Arctic warming than black carbon from mid-latitude sources," it is imperative that emissions in the North are mitigated.⁴⁵ These solutions include targeting major sectors in four economic areas: "oil & gas exploration, production and development, shipping, open burning, and clean energy & energy efficiency".⁴⁶ The United States has the opportunity as Arctic Council chair to make effective changes concerning environmental practices in the North, and by targeting the emission of black carbon and methane in the oil and gas industry, they can deter pollution. In order to decrease black carbon emissions new legislation is needed in certain sectors like residential heating, agricultural burning and improvement of technologies in the sector of transportation.⁴⁷ Decreasing agricultural burning also affects methane release. The true scope of American accomplishments during their time as Arctic Council Chair will not be clearly defined until after their completion in 2017.

Finland has yet to Chair the Arctic Council for a second time, but when they take over from the United States Chairmanship their goals for the Arctic represent real progress in the arenas of pollution and climate change. Cleantech represents a Finnish solution to renewable energy, and offers a solution for Indigenous communities to decrease their reliance on fossil fuels.

Policy Recommendations

In order to combat the effects of climate change, binding actions and agreements need to take place. The Arctic Council represents a forum through which these policies can be

implemented, especially policies on pollution and emissions. This chapter attempts to shed light on pollution policy and efforts by the Arctic Council to deal with black carbon and methane as short-lived climate forcers. The following are policy recommendations:

1. Specific and binding agreements for individual Member States regarding emissions of Black Carbon and Methane in Arctic territory; have Member States submit public progress reports on their efforts.
2. Better control and regulation of economic activities in the Arctic oil and gas industry including updating technology and providing emissions reports.
3. Decrease Indigenous communities' reliance on fossil fuels by expanding and implementing the renewable energy sector in the Arctic.

The first recommendation requires that the Arctic Council create binding agreements concerning black carbon and methane emissions. These agreements would apply to the Arctic territory and be mandatory for Member States and Permanent Participants. This policy option would involve monitoring the release of black carbon in the shipping industry, the oil and gas industry, and other sources of emission. By signing this agreement, Member States would be required to release updated reports on their progress to mitigate their emissions.

The second recommendation requires the Arctic Council to put greater controls on economic activities in the Arctic. These activities include drilling, shipping, fishing, and resource extraction. With increasing access and therefore increasing activity occurring in the circumpolar region, this recommendation is of utmost importance. Companies partaking in the industry would be required to update their technology, such as vehicles or extraction machinery, in order to meet clean energy standards. This policy recommendation represents an opportunity to monitor Arctic activity before it has the chance to get out of hand.

The third recommendation requires renewable energy be recommended to Indigenous communities immediately. With ACAP efforts to mitigate emissions of black carbon in the Arctic and the success of integration of wind, solar, and geothermal energy above the sixtieth parallel North, renewable energy is a realistic option for Arctic communities. The Arctic Council should build a program to begin the construction of a RET sector in the Arctic to focus on the implementation of solar, wind, and hydro power in Indigenous communities.

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CHAPTER 3

PLANNED RELOCATION: AN ADAPTIVE STRATEGY TO CLIMATE-INDUCED DISPLACEMENT IN THE ARCTIC

By Danika Moore

Abstract

The Arctic is warming at an alarming rate. Sea-level rise, melting permafrost, increased storm surges and erosion are the main causes of distress in many communities where homes are being flooded and infrastructure is collapsing. Climate-induced migration is a very urgent but under-discussed topic among Arctic nations. Community relocation is one of the best, and sometimes the only adaptation strategy that exists for many coastal villages. However, it is complex and costly. In this essay I am going to use three Alaskan villages as case studies to analyze the relocation process, and where it can be improved. The Arctic Council can play a leading role in aiding Arctic communities to relocate, and serve as an example for other organizations and governments. It should raise awareness in southern areas of the Arctic nations, make the voice of the indigenous communities heard, fund research on vulnerable communities and relocation sites, and facilitate the sharing of resources, information, and experience to help relocate communities as efficiently possible.

I. Introduction

"Nowhere is the challenge of adapting to the impacts of climate change more urgent than in Arctic coastal communities confronted with the need to relocate to avoid physical destruction."

- Oran Young¹

Climate change is affecting many communities world-wide, and there is little doubt that some areas are becoming increasingly difficult to live in.² Climate change will lead to an increase in natural disasters such as floods, mudslides, hurricanes and other sudden-onset hazards. It will also have slow-onset impacts such as droughts, sea-level rise, desertification, erosion, etc. These changes affect the safety and sustainability of human settlements world-wide.³ People are being affected by desertification in sub-Saharan Africa, rising sea levels in the Maldives and other low-lying islands, floods in Bangladesh, and extreme weather events in the United States. However, nowhere are the effects of climate change so visible and in urgent need of being addressed as in the Arctic. Firstly, average temperatures are warming at double the rate of the global average.⁴ One of the reasons the Arctic is warming faster is because of positive feedback loops. Snow and ice is reflective and when it melts it exposes more land and ocean

surface to solar radiation. The darker surfaces absorb more heat causing the temperature to further increase, causing more snow and ice to melt.⁵ Another is the depth of the atmosphere. The atmosphere is much more shallow at the poles, which results in a larger temperature increase. Secondly, Indigenous communities have a special relationship with the land, one which depends on stability and predictability. As the temperatures rise, not only are their communities physically falling apart, but so is their lifestyle and the core beliefs that form their identity.

Climate Change in the Arctic

The main effects of rising temperatures that affect the physical habitability of communities are melting sea ice, ice caps and permafrost, increased precipitation (which leads to erosion), and increased storm surges. Other factors such as changing animal migration patterns, ocean acidification and increased UV radiation are of equal importance for the well-being of Arctic communities but are not relevant in this essay. (For more information on other social costs borne by climate change on Indigenous communities refer to chapters IV and V.)

Glaciers have been melting at an unprecedented rate, causing sea levels to rise and inundating some areas of coastal communities. The contribution of arctic glaciers to sea-level rise is estimated at six centimeters by the end of the century. However, the majority of sea-level rise is expected to be due to thermal expansion, the phenomenon of water expanding as it warms. Thus, the global sea-level is actually expected to rise by 10 - 90 centimeters within this century.⁶ The ice cap covering the Arctic Ocean has also retreated by forty percent since satellite imaging began in 1979 and it is also becoming younger and thinner, thus less reliable.⁷ Sea ice is not only critical for habitat health and Arctic ecosystem functioning, it also physically protects coastal communities. Having sea-ice close to the shore is critical to communities because it protects them from storm surges. With climate change, not only is the ice gone for longer each year, but storms are also becoming more intense making coastal communities extremely vulnerable.

Permafrost, or permanently frozen soil, is thawing. As it melts it releases large amounts of methane gas which is a very potent greenhouse gas which further accelerates global warming. It is also going to present significant challenges to infrastructure such as roads and buildings. Permafrost is also the 'foundation' for building in the Arctic, it "literally helps to hold the land together".⁸ As it melts many riverbanks and village shorelines have begun to collapse and

erode. Buildings are becoming unstable and communities are becoming less accessible because roads are cracking.

Warmer temperatures cause an increase in evaporation. This creates a more humid atmosphere which is why precipitation increases as the earth warms. In the Arctic, total annual precipitation is projected to increase up to 20% by the end of the century.⁹ Increased precipitation is causing river flows to become more powerful, leading to erosion of river banks and threatening people living nearby.

Extreme weather events are also on the rise. Rising temperatures and increased humidity make the atmosphere more predisposed to storms, leading to an increase in frequency and strength. Coastal flooding as a result of powerful storm surges has become a regular problem for many coastal communities. There have been 228 flooding events in Alaska between 1978 and 2008 and 40 percent of these have occurred between 2000 to 2008.¹⁰ Communities that were once resilient are now weakened by crumbling infrastructure and the disappearance of a natural storm barrier, and in addition storms are becoming increasingly destructive.

All of the above mentioned changes are occurring at alarming rates. Climate change is transforming the Arctic in numerous ways and threatening the life of indigenous people, especially those who live near the coasts and rivers. The US Government Accountability Office reported that flooding and erosion is affecting 184 of the 213 Alaskan indigenous communities; 31 of those are immediately threatened.¹¹ All of these changes are forcing communities to relocate, or move to another town. The circumstances under which these people are being forced to make the decision to move make them akin to refugees. They are leaving because it is dangerous, even life-threatening, for them to try to stay in their communities. The general public calls these people 'climate refugees', though they do not have refugee status and so are often referred to as climate-induced migrants. I will use these two terms interchangeably, and describe why the differentiation is problematic later in the essay.

Broader Implications

Climate refugees are both an international and multilateral problem, spanning many countries and disciplines. The issue is not only a humanitarian one; it is also a security issue, an economic issue and a human rights issue.

War has historically been the main threat to international security, but today “climate change is potentially as detrimental to human life and economic and political order as traditional military threats”.¹² The flow of unregulated population movements can destabilize states, aggravate trans-border conflicts, create political tensions and jeopardize human security , as is evident today in Europe.¹³ Historically most refugees were people escaping war and terror but increasingly natural disasters and environmental distress are the main causes. The Red Cross believes that “climate change disasters are currently bigger cause of population displacement than war and persecution”¹⁴, and Sara Aminzadeh writes that “Migration in response to environmental degradation is fast becoming the most pervasive form of forced migration to occur in the 21st century”.¹⁵

Climate Refugees also pose an economic burden on governments if migrants are not managed properly and in a timely manner. If the cost of addressing the effects of climate change grows faster than the growth rate of the economy, then the costs will eventually stress the available resources for adaptation and mitigation. The government generally bears the costs of a warming planet, but the government’s resources are limited. It cannot indefinitely offset rising climate costs.¹⁶ The GAO estimates that relocating a typical Alaskan village would cost \$100 - 400 million. If we consider the lower end of this estimate, and also assume that one community would be relocated a year, then \$100 million makes up only 1.25% of the total annual federal spending budget in Alaska (which is approximately \$8 billion). Economically this is not an inconceivable sum, especially when considered that relocation is a long-term solution that will not require constant maintenance. However, spending \$100 million to benefit a few hundred of people is politically very difficult to achieve.¹⁷ Preventative action, such as relocating a community before a disaster occurs, would save money in the long run and alleviate human suffering, but it also requires strong political will and the willingness by governments to spend money preemptively, before problems have arisen. “Preventions can be difficult to justify, because it is often difficult to pinpoint the savings that were realized”.¹⁸ Regardless of these difficulties, prevention is often the best policy.

Sheila Watt-Cloutier, the Chair of the ICC, said that “Climate change is gradually divorcing us from our land and eroding our subsistence way of life”, and forced migration is the most extreme form of becoming “divorced” from the land. Understanding environmental migration is particularly critical “as entire communities are forced to move off of traditional land, (...) threatening cultural stability and individual and family security.”¹⁹ Climate change is rendering many communities uninhabitable, and the people in those communities are left without much

assistance or protection. This phenomenon threatens many basic human rights, including the right to life. This right is understood as the protection against intentional or arbitrary deprivation of life, as well as the “state’s obligation to ensure that every individual within its boundaries has access to means of survival.”²⁰ By not aiding in relocation, many states are ignoring the human rights of its citizens. If forced migration is understood through a human-rights lens, governments might be more active in finding solutions.

II. Background

In 1951 the United Nations Refugee Convention defined a refugee as any person who “owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country”. There are international laws in place to protect refugees that have been successful in helping millions of people. In recent years, a new type of refugee has emerged which also requires protection and assistance: persons displaced by the environment.²¹ The term ‘ecological refugee’ first appeared in the 1970s and the term ‘environmental refugee’ was first coined at an United Nations Environmental Program (UNEP) in 1985. The definition given was: “...those people who have been forced to leave their traditional habitat, temporarily or permanently, because of a marked environmental disruption (natural and/or triggered by people) that jeopardized their existence and/or seriously affected their quality of life”.²² However, many of the people forced to leave their homes because of climate change do not fit the UN definition. Firstly, most of them are not ‘outside their country’, the migrations are internal; secondly, they are not technically persecuted although they are fleeing danger. Because of these limitations, people migrating due to climate do not have protection and are not given assistance by the international community. In order to avoid the term “refugee”, the UNHCR has called these people “environmentally displaced people”, a label which includes those “who are displaced from or who feel obliged to leave their usual place of residence, because their lives, livelihoods and welfare have been placed at serious risk as a result of adverse environmental, ecological, or climate processes and events.”²³

People have long been forced to move because of changes in their environment; environmental migrations have always occurred.²⁴ I could add that ‘environmental refugees’ have also always existed; people throughout history have been forced to leave their original dwellings because of a natural disasters. However, the term ‘climate refugee’ has a different

connotation for it implies that the environmental change causing displacement is the result of anthropogenic climate change; human actions are the root cause of the problem. Now that the relationship between climate change and changes in the environment are clear, the term 'climate refugees' has become the most commonly used term. The issue of 'climate refugees' is therefore a relatively new one. The idea of climate change having an affect on human migration was first discussed in 1990, when the IPCC warned that "The greatest single impact of climate change could be on human migration".²⁵ And their predictions might be coming true: by 2050 there might be as much as 150 million displaced persons due to natural disasters.²⁶ A concrete measure of the growing awareness of the problem among the international community was the adoption of the Cancun Adaptation Framework (CAF), put together during the United Nation Framework Convention on Climate Change (UNFCCC) meeting in 2011. This was the first ever mention of migration and displacement in an internationally negotiated climate policy report.²⁷ Of particular importance is paragraph 13, subsection (f) which calls for "Measures to enhance understanding, coordination and cooperation with regard to climate change induced displacement, migration and planned relocation, where appropriate, at national, regional and international levels;"²⁸ The international community is slowly realizing the need to address the issue, but concrete solutions have not yet been offered.

When the idea of a linkage between climate change and migration was introduced in 1990, it did not harness enough attention and quickly lost its momentum, but the issue has "re-surfaced"²⁹, partly due to raised awareness and partly due to the urgency of the problem. Today the Arctic Council and the United States - the current holder of the chairmanship in the Council - show awareness of the problem facing indigenous communities, as well as a capacity to solve it.

The Iqaluit Declaration, the most recent report published by the Arctic Council, proves that the Council is moving in the right direction. Allusions to the problem are present throughout, but is never explicitly mentioned. The declaration includes phrases such as: "... the Arctic will continue to warm at twice the rate of the global average, increasing the likelihood of severe impacts in the Arctic and around the world...", "...national action is needed to reduce climate risks, increase prospects for effective adaptation, and reduce the costs and challenges of mitigation in the long term", "...resilience and adaptation to climate change are critically important for Arctic communities", "Recognize the importance of risk assessment in relation to climate change, and the need to evaluate the widest possible range of impacts (...) in order to inform decision and develop adaptation strategies".³⁰

Similarly, the United States has shown awareness of the need to intervene. In 2015, John Kerry delivered a very powerful speech at the Legislative Assembly of Nunavut. He said that climate change “threatens to unleash flooding and storm surges, causing immeasurable harm not only to Arctic communities, but to urban and rural settlement along the coast of every ocean.” He emphasized that this is not a future challenge but rather a present one. “As they lose their natural sea barriers, villages in the Arctic are already being battered by storms. And as the permafrost continues to thaw, the infrastructure that depends on it is becoming more and more damaged. Houses and other buildings are literally collapsing already.”³¹ He clearly is aware of the problem, and believes it requires the Council's urgent attention. The Congressional Research Service report on the Arctic from 2016 writes that “Sea, shoreline ice, and permafrost changes have damaged infrastructure and increased coastal and inland erosion” and that the U.S. Army Corps of Engineers identified 178 communities at risk.³² It further informs that in 2009 the Government Accountability Office (GAO) concluded that “many Native villages must relocate, but even those facing imminent threats have been impeded by various barriers, including difficulties in identifying appropriate new sites, piecemeal programs for state and federal assistance, and obstacles to eligibility for certain federal programs.”³³ Most recently, Obama's new budget request to Congress includes a proposed \$400 million “to cover the unique circumstance confronting vulnerable Alaskan communities, including relocation expenses for Alaska Native villages threatened by rising seas, coastal erosion, and storm surges.”³⁴ This is a step in the right direction, but it is still unsure how these funds will be distributed. Robin Bronen, executive director of the Alaska Institute for Justice, commented that while “The funding absolutely provides a critical step towards making folks safe (...) without an institutional framework and figuring out at what point in time communities need to start thinking about relocation, more communities will be in crisis because we haven't figured out the process of how to protect people prior to there being an extreme weather event that permanently displaces them.”³⁵

With evidence of climate change, specifically the ways in which climate change is negatively affecting coastal communities in the Arctic, and with awareness of the problem of both the Arctic Council and the United States, why are so many communities struggling to relocate? In this next section I am going to give an overview of what is happening in three Alaskan villages. I will identify the problems and try to understand why relocation is so difficult and inefficient. Finally, I will offer some policy recommendations for what the Arctic council might do to better serve the communities in the Arctic facing increasing threats from climate change.

III. Case Studies – Three Alaskan Villages: Shishmaref, Kivalina, Newtok

Many researches believe that migration is a strategic and successful adaptation solution to climate change, but the logistics of a planned relocation - including the resources available for migrants, the funding source, and the organizing body of the actual relocation - are not yet developed. If done correctly, community relocation can reduce the “negative impacts of climate change on human populations” and share the burdens of the “unavoidable negative outcomes”.³⁶

Before colonization, the Arctic Indigenous communities were mobile and could easily adapt to, or escape from, natural disasters. They moved seasonally to take advantage of hunting and fishing opportunities. Today they are stuck in communities with fixed infrastructure; the imposition of Western ideals of ‘community’ has constrained and handicapped Indigenous people in the Arctic.³⁷ The federal government was responsible for establishing many of the Alaskan indigenous communities in the late 19th century after the US Department of the Interior’s Bureau of Education began to develop an education system for Native communities. The construction of schools, and the requirement that all children attend, caused nomadic families to move closer to the school district and establish a permanent residence.³⁸ In addition, Alaska’s villages have minimal local revenue and depend on federal and state subsidies for a majority of their income.³⁹ These two factors have led Indigenous communities to be extremely vulnerable and dependent.

The GAO report from 2003 reported that 86 percent of Alaska Native villages are threatened by erosion and flooding. Of these, 31 have been identified as being under imminent threat. Twelve of these 31 villages have already decided to relocate, but only one has been somewhat successful. In this section, I am going to analyze the relocation process of three Alaskan communities: Shishmaref, Kivalina, and Newtok. Although these communities are “culturally and logistically removed from the political center of the nation”, they might set a precedent of how both national government and international organizations may assist in climate-induced relocations in other parts of the world.

Shishmaref, Alaska is located on a barrier sand island in the Bering Sea. It lacks roads, and is therefore dependent on air transport for the transport of goods and travel in and out of the village.⁴⁰ Increased erosion, storm surges, and diminished sea ice threaten this low-lying

settlement of habitual flooding.⁴¹ As time progresses, the possibility of a life-threatening natural disaster that will make the island uninhabitable increases. Shishmaref residents have three options: rebuild essential infrastructure by petitioning government or private funding, be forced into diaspora after a major disaster, or relocate to nearby tribally-owned land.⁴² The tribal government has already invested \$16 million in infrastructure maintenance, but the community continues to be threatened by flooding and erosion.⁴³ The third option is preferred by the residents, as it is a long-term solution that will keep the community intact; in 2002 the residents voted to relocate the community.⁴⁴ Tin Creek had been chosen by the Shishmaref Erosion and Relocation Coalition, but it has since been deemed unsuitable. A new location has been selected and is currently being studied to determine its suitability. Inadequate state and federal funding have stalled prolonged planning for relocation and there is no institutional body with the organizational capacity to relocate the entire community.⁴⁵ The steps to implement relocation remain unclear.

The village of Kivalina is located at the tip of a barrier reef island in the Chukchi sea. The community is threatened by storm surges and flooding. With the onset of climate change, it has lost its protective sea ice barrier. Key infrastructure, such as the barge landing, the airstrip, the water source, and the solid waste storage are being impacted by increased coastal erosion.⁴⁶ In 1998, the residents voted to relocate and in 2012 they voted to construct a new school 7 miles from their current location. The Kivalina Evacuation And School Site Access Road Committee is trying to determine the viability of building a road to connect the present and future locations of the community. Other steps required for the relocation, such as the establishment of a new sewage, water and electricity infrastructure as well as housing, have not been identified.

Newtok, a small community of about sixty-three houses, is located along the Ninglick River, which flows out into the Bearing Sea.⁴⁷ The threat to the community doesn't come from the ocean, but rather from the erosion caused by the river, which is moving closer and closer every year. It is projected that by 2017 it will reach the school, which is the center of the community.⁴⁸ Newtok residents have already voted three times to relocate, the first time in 1989 and most recently in 2003. It has since been confirmed that an area of land, nine miles away, will be the new location for the community. This location, called Mertarvik, was acquired by a land-exchange agreement with the US Fish and Wildlife Service. In 2006, Newtok residents built three houses at the new location and in 2009 other essential infrastructure projects began. The Newtok Traditional Council funded these projects, and the Newtok Planning Group organized and executed them.⁴⁹ The Newtok Planning group is a unique organization, and a useful

example for the potential formation of an Arctic 'Planning Group'. It is unique in its multi-disciplinary and multi-jurisdictional structure. It consists of approximately 25 federal, state, and tribal agencies (both governmental and non) that have all voluntarily collaborated to facilitate Newtok's relocation.⁵⁰ Sharing information and inclusion of local needs and goals are the keys to the success of this planning group. Newtok has thus far been most successful in relocation, and is the only city with an overarching organization that facilitates relocation. The next step is to expand the function of this group to other communities around Alaska, and eventually the Arctic.

All of these communities have agreed that community relocation is the best, and many times only, real solution. They have also faced the same obstacles, namely the lack of interest in their grim circumstances by national and international governments, the seeming lack of legal rights, and most importantly the lack of an overarching relocation institution. Newtok has been the most successful of the three communities largely due to the existence of the Newtok Planning Group. If the workings of this group could be extended to other communities, and have international assistance, then relocation would be a viable solution for the current problems facing climate-induced migrants. In the next section I will address the three main issues faced by communities in the Arctic in need of relocation, and potential solutions that can be executed by the Arctic Council.

IV. Problems and Solutions

Problem: Denial

Solution: Awareness Through Research and Discussion

Although the Arctic Council and the United States have acknowledged the problem of climate-induced migration, they have not shown a balanced response to the gravity of the problem. Climate refugees and planned relocation as an adaptation strategy should be at the forefront of many meetings dealing with climate change or human rights. Other than the Cancun Adaptation Framework document in 2011 compiled during the UNFCCC conference, there has been no other international or regional forum which has "created a space recognizing a range of issues and possible activities related to human mobility in the context of climate change".⁵¹ The threatened communities are generally small and isolated. Relocation is also a very difficult and complex process that requires a lot of political will to address. Because of this, these communities are easily ignored by governments.⁵² During the 2011 UN Nansen Conference on

climate change and displacement Aqqaluk Lynge, the former chair of the ICC, argued that the lack of an adaptation program for climate-induced migrants was nonexistent largely due to denial by the regional and national governments.⁵³ These communities need an international organization that can stand up for their needs, and I believe the Arctic Council is very well established to fill this void for Arctic Indigenous communities. Research needs to be conducted to better understand threats facing many communities across the Arctic. It is also essential to determine which ones are most threatened, and what would a suitable relocation site look like. Furthermore, research should be conducted on previous community relocations due to development projects, such as dams, to learn something about the best way to go about relocating a whole community in a timely manner. Finally, the Arctic Council should better inform the Arctic nations and the rest of the world about the problems these communities are facing. It should start a conversation amongst the global community and start discussing possible solutions.

Problem: Definition (Normative Gap)

Solution: Redefinition or Separate Legal Rights

Another obstacle in solving the problem faced by climate-induced migrants is the normative gap in the legal framework.⁵⁴ As mentioned earlier in this chapter, the differentiation between “climate refugee” and “climate-induced migrant” is not trivial. Anthony Oliver Smith, a professor of Anthropology, said that “How you define somebody can be an issue of life and death for them”,⁵⁵ and this is unfortunately true for climate-induced migrants. The International Organization for Migration (IOM) report on “Migration, Environment and Climate Change” states that the importance of definition is critical because it guides the policy response of governments and international organizations.⁵⁶ A refugee is protected under international law, a migrant is not. Officially naming the communities in Alaska “climate refugees” would legally give them access to funding and assistance with relocation. One of the solutions suggested is extending the original UN definition of a refugee to include people displaced by climate change within their own country’s border: “it is high time to redraft the definition of ‘refugee’ and to improve its components in order to provide appropriate protection and circumstances for environmental refugees.”⁵⁷

Others argue that it would be more effective to simply form a separate legal framework to assist this new type of refugee, since their circumstances are quite different than the people who traditionally qualify for refugee status. The Nansen Conference report argues that “The terms

'climate refugees' and 'environmental refugee' should be avoided, as they are legally inaccurate and misleading".⁵⁸ Instead, it suggests that the terminology used for people who are forced to move because of climate change should be clarified, and that human rights principles can be constructed to protect those who fall outside the international refugee protection framework.⁵⁹ Environmentally displaced persons should still hold their governments accountable to protect their human rights. "According to basic tenets of international law and natural justice, everyone displaced by factors and circumstances beyond their control or responsibility must be treated as rights-holders, possessing rights under both national and international laws, with these rights generating corresponding obligations on behalf of the relevant governments concerned".⁶⁰ However, many of the institutions in place to enforce international laws are "not yet capable of ensuring that the rights of climate dispersed persons will be fully respected and protected". Since there have been no previous instances of planned community relocations due to climate change, it is not yet clear where environmentally-displaced communities can turn to "seek adequate redress for their predicaments."⁶¹ It is therefore necessary that the international community make it a priority to determine where these people fall, which laws determine their fates, and where they can turn for assistance and justice. The Arctic Council can start this conversation regarding communities in the Arctic, and let the discussion echo into the wider community.

Problem: Institutional Void

Solution: New Governing Body

Bronen and Chapin write that "the lack of an overarching institutional relocation framework has caused the relocation of Kivalina, Shishmaref, and Newtok to proceed in an ad hoc manner".⁶² The Newtok Planning Group has had to employ various funds generally available for community projects "to put the relocation puzzle together."⁶³ This compartmentalization of relocation efforts through various agencies has led to inefficiencies and delays in relocation. A streamlined relocation plan, funded and organized by one organization would be more effective and cost-efficient. Furthermore, it requires multi-disciplinary relationships between various levels of governance, from tribal to international.⁶⁴

Robin Bronen proposes that any governing body in charge of planned community relocation should include a *relocation policy framework* and an *adaptive governance structure*. The relocation policy framework would define the human rights principles that should govern the relocation practices, including the right to relocation, the right to life, and the right to self-

determination. The adaptive governance framework calls for an institution that is highly flexible, and able to respond to a continuum of responses. A governing body possessing these two qualities should be able to coordinate all the components required in a strategic relocation plan. These include: resolving land issues, physically relocating the existing infrastructure and building it anew if necessary, designing the new community layout, physically relocating residents, all the way assessing the social and ecological wellbeing.⁶⁵

V. Policy Recommendations & Concluding Remarks

Climate change on its own does not directly displace people, but it does produce environmental effects that exacerbate current vulnerabilities. Some of the effects are gradual, such as drought or rising sea-levels, others are sudden, such as natural disasters. In either case, adaptation strategies are necessary. For many communities, specifically those on small islands, along the coast, near major river deltas, and in arid regions, relocation is the only solution. Communities in the Arctic are particularly vulnerable because of the rate of change in the polar regions and their dependence on the land. By looking at three communities in Alaska that are urgently trying to relocate, I was able to identify some of the major obstacles. A lack of awareness and knowledge about these communities is the first. The inexact and confusing definition for this new type of 'refugee' is another, and it has important implications when it comes to legal rights and policy responses. The final and perhaps most important obstacle is the lack of a governing body to organize and carry out planned community relocation. It is currently nobody's responsibility, and therefore the process is very inefficient and costly. Planned relocation will require strong leadership, the inclusion of local communities in decision making, elimination of institutional barriers, and governance of climate change adaptations that fosters innovation and efficient communication.

According to Robin Bronen "The United States should lead the effort to respond to climate-induced community relocations and implement legislation to provide governance tools and resources so that communities faced to relocate due to rapid and radical climate change can be resilient."⁶⁶ I believe the United States should do this as part of their Arctic Council chairmanship, and be the first country to create a national relocation program. Preventative measures are very hard to promote politically, but I think that the situation in Alaskan communities is serious enough that if more people were aware of the reality these communities are facing, they would be supportive of relocation. Since the Arctic is experiencing the effects of climate change sooner than other regions in the world, it provides a glance into the future for

the rest of the world as climate change progresses. Relocation is going to be a large part of the adaptation effort, and we should not procrastinate developing a good relocation strategy. To conclude, I am going to outline once more the steps the global community needs to take in order to help climate-induced migrants, and the specific role the Arctic Council can fulfill.

1. Fund Research and Raise Awareness:

- Predict which communities are going to be vulnerable in the future and help identify relocation sites.
- Research previous relocation projects (eg. dams and other development projects) - "lessons from the past will be useful"⁶⁷.
- Raise awareness and begin international conversations.
- The Arctic Council can lead the effort by starting a new Task Force on Climate Induced Migration. The goal should be to outline a comprehensive process for planned relocation in the Arctic.

2. Provide clear definition in order to designate legal rights:

- Provide a clear definition for the group of people who are forced to move due to climate change. 'Climate induced migrants' is one possibility.
- Clarify what type of protection this new definition entails.
- The UN should be responsible for coining a new definition, but the Arctic Council should provide an input.

3. An overarching governing body must exist to streamline the relocation process. It must:

- Provide a timeline for relocation.
- Provide funding for relocation.
- Be based in human rights and involve the affected community.
- Identify relocation strategies that protect people's lives and livelihoods and result in an improved economic and social situation.
- Share information and expertise with all communities wanting to relocate.
- Make use of existing norms and international laws.

NOTES

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PART II.

NOURISHING MINDS: COMMUNITITES FOR THE FUTURE

The Ottawa Declaration of 1996 affirmed the Arctic Council's commitment to "the well-being of the inhabitants of the Arctic, including recognition of the special relationship and unique contributions to the Arctic of Indigenous people and their communities."¹ This section focuses on promoting the wellbeing and resilience of Indigenous peoples in the Arctic, some of the world's most northerly communities. Through exploring the Arctic Council's Declarations and projects concerning Indigenous issues, it is evident that food security, mental wellness, and education should be further prioritized to advance Indigenous prosperity.

Voicing Food Security for Inuit of the Arctic: Inuit households experience food insecurity at more than double the rate of all other Canadian households.² This issue detracts from Inuit ability to sustain cultural and traditional values, and therefore their capacity to secure future wellbeing. This chapter will define Inuit food security, examine the global context of the issue, analyze its growing prominence and increasing specificity in the Arctic Council, and suggest promotion be continued and increased in order to support the resilience of Inuit livelihood.

Promoting Mental Wellness and Resilience in the Arctic: From 1994 to 2008, the rate of suicide among Inuit youth under 18 was thirty times higher than that of their counterparts in the general Canadian population.³ This chapter will describe the current status of mental-related issues across the Arctic, identify the key success factors of past mental wellness programs to benchmark, and assess program scalabilities for the Arctic Council to move toward promoting mental wellness for Indigenous peoples in the Arctic.

Educational Opportunities for Inuit Youth: The final chapter of this section underscores post-secondary education for Canadian Inuit as a form of building capacity for Inuit communities and for greater participation in the Arctic Council. Through the expansion of existing post-secondary programs and the implementation of a proposed Inuit University, Inuit will have greater tools to conduct research, take courses that are based on Inuit values and language, and foster personal, intellectual growth.

Our intention is to assess current achievements on capacity-building and suggest actionable items for the Arctic Council and Member States to move forward to promote education, secure food resources, and assure mental wellness across the Arctic.

CHAPTER 4

VOICING FOOD SECURITY FOR INUIT OF THE ARCTIC

By Allison Rutz

Abstract

Through defining international and Inuit understandings of food security, this chapter will articulate that it is a prominent limitation to Inuit health, culture, and livelihood. Additionally, the issue is not isolated in the North, but rather exists in a connected Arctic and international context. Environmentally harmful practices and industries undertaken on a global scale are drastically influencing the environment of the North. Food source threats from climate change, foreign industries, and increasing pollution directly impinge on Inuit human right to food as they derive their livelihood directly from their surroundings. As a result, the growing prominence of the issue within forums like the Arctic Council is evident, and therefore is documented in this chapter in order to analyze how said growth is benefiting Inuit research and initiatives that promote Inuit food sustainability. Moreover, in achieving cooperation, coordination, and interaction among Arctic States to address issues of environmental change and sustainable development, the involvement of Arctic Indigenous peoples is critical given their history and extensive knowledge of the Arctic. This chapter will ultimately suggest promotion of food security be continued, offering ways in which the Arctic Council can further improve the voice for food security for Inuit.

I. Background

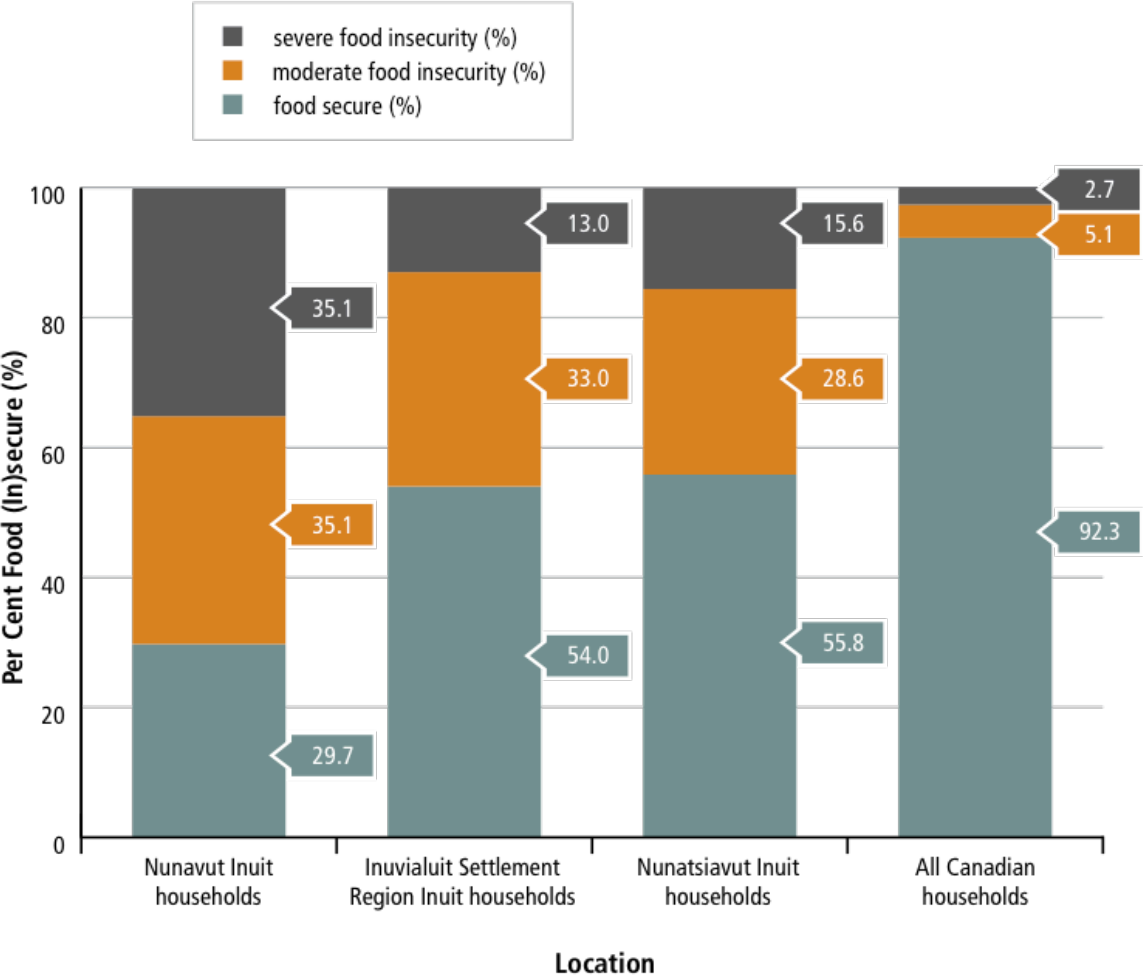
“All of the plants, all of the animals, the water, the air, the land is all of what we are...It is who we are. This is our understanding. People making decisions have a different understanding.”

—Alaskan Inuk¹

Understanding the Issue

While the Arctic Council does not deal with issues of conventional security, it is committed to the well-being of Arctic inhabitants as stated in the Ottawa Declaration of 1996: “Affirming our commitment to the well-being of the inhabitants of the Arctic...to sustainable development in the Arctic region, including economic and social development, improved health conditions and cultural well-being.”⁴ In this way, addressing impacts of the changing Arctic environment has been a priority of the Arctic Council because it is detracting from the well-being of Indigenous communities therein. More specifically, environmental changes have been transforming the way in which Indigenous communities in the Arctic go about their lives, in many cases threatening their access to food and ability to sustain cultural traditions, values, and practices.

Formed during the 1996 World Food Summit, a widely accepted definition of food security is “when all people, at all times, have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life.”⁵ Food insecurity is the converse, meaning inadequate or uncertain access to an acceptable amount and quality of healthy food.⁶ The Council of Canadian Academies’ report on *Aboriginal Food Security in Northern Canada* was referring to this definition when it indicated 1.6 million Canadian households, which is about every one in eight households, or 3.9 million people, experienced some level of food insecurity in 2011.⁷ Moreover, Inuit, meaning “the people,”⁸ who constitute one of three main Indigenous populations in Canada, were indicated by the report as particularly vulnerable to food insecurity as depicted in the following figure:



Council of Canadian Academies, *Aboriginal Food Security in Northern Canada: An Assessment of the State of Knowledge.* ⁹

The three regions indicated in the graph: Nunavut, Inuvialuit, and Nunatsiavut, along with Nunavik make up Inuit Nunangat, or Inuit homeland, where about 60,000 Canadian Inuit live.¹⁰ The graph shows the results of the 2007-2008 International Polar Year Inuit Health Survey and the 2007-2008 Canadian Community Health Survey, both of which used the same survey module to obtain results. They did not include the Nunavik Inuit Health Survey results because a different survey methodology was used.¹¹ It is worth noting that Inuit households experience food insecurity at more than double the rate of all Canadian households, therefore emphasizing the severity of the situation for Canadian Inuit.

Climate Impact on Arctic Food Security

In order to understand the major cause of food insecurity in the Arctic, it is critical to acknowledge the following: that “the same systems of colonial capitalism, which caused the nutrition and physical activity transitions [of Inuit], have also led to the climate change impacts that are disproportionately experienced (but not disproportionately generated) by Arctic communities and which exacerbate the difficulty of those communities to define/design their own food system.”¹² In other words, Inuit food security, which relies largely on the health of the environment, is threatened by global human activity that is driving climate change, and therefore requires an international response in promoting.

Focus on Inuit

Although there are many Indigenous populations in the Arctic, this chapter will focus on Inuit food security for a number of reasons. Firstly, they are unique in being the most northerly people that also have a circumpolar presence representing Canada, the United States, Greenland, and the Russian Federation.¹³ Additionally, Inuit are hunters and fishers who have long had a deeply connected relationship with the environment. In this way, the climate changes taking place in the Arctic, and accompanying international interests have greatly affected species availability, traditional hunting grounds, and accessibility of traditional Inuit foods, also known as country foods.¹⁴ Lastly, Inuit were present at the founding of the Arctic Council and are represented by the Inuit Circumpolar Council (ICC), which is an international non-governmental organization that represents Inuit in the Arctic¹⁵, and is one of the original Permanent Participants that has been active in various working groups, task forces and projects within the Arctic Council.¹⁶

Defining Inuit Food Security & Related Concepts

More powerful than the fact that Inuit are facing high levels of food insecurity as shown above, is the knowledge that the issue has a much deeper and impactful reality for Inuit specifically. Food security to an Inuit is different from that which is defined by the international community. Arctic food insecurity must incorporate the Arctic ecosystem and Indigenous culture therein, and cannot rely on agricultural development.¹⁷ Alaskan Inuit food security, as defined by ICC-Alaska, is the natural right of all Inuit to be part of the ecosystem, to access food and to care-take, protect and respect all of life, land, water and air. Moreover, it means understanding that food is a lifeline and a connection between the past and today's self and cultural identity, and includes activities surrounding Inuit preferred foods that provide for future generations through the practice of Inuit customs and spirituality, languages, knowledge, policies, management practices and self-governance.¹⁸

Canadian Inuit are in agreement with Alaskan Inuit as seen in a report put together by ICC-Canada and the Inuit Tapiriit Kanatami (ITK), which says the following:

For Inuit in Canada the right to food extends far beyond economic, nutritional, and physical accessibility to include significant cultural importance. The hunting, harvesting and sharing of country food is integral in providing social cohesion and cultural continuity for Inuit communities. Inuit livelihoods have historically been, and continue to be, defined by a deep relationship to the environment and the resources it provides. Despite the presence of market food in the modern Inuit diet, country food remains at the center of Inuit identity and well-being.¹⁹

In this way, food security for Inuit constitutes a human right, as recognized by the United Nations,²⁰ that secures mental and physical health, cultural identity, and self and community resilience. Country foods or traditional foods, which are harvested from the Arctic environment and include char, seal, caribou²¹ among other species, are a critical component for securing cultural identity. The following image was taken by Barry Pottle, an Inuk photographer, and was included in his photojournalism presentation which he called "Foodland Security":



Barry Pottle, "Foodland Security."²²

This image is called "Starting the Feast," and is a picture of maktaaq (whale skin with blubber) and an ulu (traditional Inuit woman's knife).²³ It is important to be able to visualize and physically experience maktaaq and other country foods as they comprise such an important aspect of Inuit culture.

Another important aspect to realize is that "food and its surrounding discourse has evolved to account for its inherently political nature by acknowledging the right of individuals and communities to define their own food system including production, distribution and consumption; this is known as food sovereignty.²⁴ Therefore, the Inuit definition of food security and the evolved idea of food sovereignty are critical in understanding the situation in the North, and in forming solutions that address the livelihoods of the people of the Arctic and not simply their nutritional status.

Lastly, it is critical to incorporate both scientific and Indigenous Knowledge when researching and analyzing Inuit food security in the Arctic in order to obtain a fuller understanding of the issue, and to ultimately promote best practices that benefit all Arctic life. In this chapter, Indigenous Knowledge refers to a systematic way of thinking, developed over millennia and passed from generation to generation that applies to biological, physical, cultural, and spiritual systems and that "includes insights based on evidence acquired through direct and long-term

experiences and extensive and multigenerational observations, lessons and skills.”²⁵ This way of knowing was the primary research tool utilized in the case study on Alaskan Inuit perspective on food security which is discussed further later on in this chapter.

Moving Forward

With a clear understanding of Inuit food security and sovereignty, and the effects of human induced climate change on such food systems, the ongoing process of defining the issue will now be explored. The following section will analyze the growing prominence of Arctic food security in the Arctic Council in order to establish the basis from which research in the area has stemmed. Then, the case studies presented will highlight the value of promoting food security and the positive effects it has had for promoting Inuit self-governance and food sovereignty.

II. Growing Prominence of Food Security in the Arctic Council

The growing prominence of food security can be seen through the declarations and statements produced throughout the existence of the Arctic Circle. Although the term “food security” has not always been utilized, the basic ideas surrounding it have been alluded to since the start, and the narrowing of specificity of the issue showcases the effective building of the Council.

Ottawa Declaration of 1996

Upon the establishment of the Arctic Council, the eight Arctic States affirmed their commitment to the following:²⁶

- The well-being of the inhabitants of the Arctic,
- Sustainable development in improved health conditions and cultural well-being,
- The protection of the Arctic environment,
- To recognizing the importance of traditional knowledge in forming a collective understanding of the circumpolar Arctic, and
- To recognizing the valuable contribution of Indigenous organizations to the development of the Council.

Although there is no mention of food security, these commitments outline the basic needs that food security provides, and therefore constitute the Arctic Council's goal of promoting Indigenous well-being.

Senior Arctic Official (SAO) Report to Ministers: Tromsø, Norway, April 2009

The Norwegian Chairmanship focused on three priority areas: integrated resource management, climate change, and the structure of the Arctic Council.²⁷ Again, the report did not directly point to food security as an issue, but it did indicate pollution from climate change was noticed to cause elevated levels of contaminant exposure found in traditional food diets.²⁸ This led to the recommendation of urging Arctic States to promote, among Arctic populations, reduced human exposure to contaminants through improved access to and consumption of local traditional foods high in nutrients but low in contaminants.²⁹ While this indicates Indigenous health was promoted by recognizing the need for healthy, low-contaminant diets, it was not yet promoted by recognizing the need for a traditional diet to simply be available and accessible.

SAO Report to Ministers: Nuuk, Greenland, May 2011

At the end of Denmark's Chairmanships, food security was mentioned once and for the first time in a SAO Report in their recommendations to the Ministers on the topic of Management and Natural Resources. It read: "Take note of the incoming Swedish Chairmanship's intention to propose activities concerning Food and Water Security and Safety."³⁰ With no further statement on the matter, it was left up to Sweden to begin promoting food security within the Arctic Council.

Iqaluit Declaration 2015

At the end of Canada's second Chairmanship, which had the theme of development,³¹ food security was noted under the matter of sustaining Arctic communities. The Arctic States and Permanent Participants acknowledged the cultural and nutritional importance of traditional and local foods, including from marine living resources in the Arctic, and stated that they welcome project proposals to assess and promote food security.³² Additionally, during their second Chairmanship, the Arctic Council launched an interactive website on climate change adaptation to make it easier for Arctic residents, researchers, and decision-makers to share information, develop tools and exchange best practices on what Arctic communities are doing to adapt to a changing climate.³³ This tool contains a number of studies, research, and findings that pertain to food security, and may prove widely valuable in voicing the circumpolar issue of food insecurity among others within a broader international community.

Arctic Council Ministerial Meeting April 2015

At the Ministerial Meeting in 2015, which marked the beginning of the United States' second Chairmanship, Okalik Egeesiak, International Chair of ICC, made the following opening statement:

Today the Arctic is a barometer of planetary health. Activities in non-Arctic regions of the world are the primary forces driving Arctic change...Many of the social and economic challenges faced by Inuit today are therefore influenced by global factors. This is why ICC supports the proposed themes and projects for the USA Arctic Council Chairmanship. The themes are crucial to the Inuit and indeed, they are indivisible from our identity, way of life, and our future. However I strongly urge that the United States Chairmanship program include two critical priority areas, namely *Food Security* and *Inadequate Housing*.³⁴

Egeesiak's strong recommendation for the United States to prioritize food security during its Chairmanship voices the importance and high level at which food security is now acknowledged to be. These select declarations and reports show that over the years, the issue of food security has developed in recognition within the Arctic Council, thus highlighting the growing importance of the issue and the Council's adaptive capacity to develop and prioritize key issues as they arise. This ability, ultimately leading to the continued specification and prioritization of the issue of food security, has aided in giving recognition to and interest in research and studies on the matter within and outside of the Arctic Council. This interest can be seen through the growing number of reports concerning food security that have been produced by Indigenous and non-Indigenous groups, and the response of various actors to those reports.

III. Field Work & Research on Food Security

As the Arctic Council promotes the issue of food security for Indigenous populations, an increasing number of studies are being done in order to determine key contributors to the issue, as well as identify best practices in forming future policies. Some of these reports have caused local and regional governments to respond by changing or improving initiatives in an attempt to better Inuit food security. The following reports provide examples of studies that were conducted, or simply brought to attention due to increased promotion of Inuit food insecurity.

The positive results justify the continuation of the promotion of Inuit food security by the Arctic Council.

Focus 1: Community Freezers

Case Study: Inuit Perspectives on Community Freezers for Country Food Access in Nunatsiavut

The rapidly changing climate, life styles, and financial status of Inuit are some of the factors detracting from capacity to access and harvest country foods, which as shown above, is critical to Inuit food security. In response, communities are establishing initiatives to support country food access for community members.³⁵ One such initiative, the idea of a community freezer, typically refers to a program that supports country food consumption in which local harvesters provide country foods to the freezer so that others in the community who lack the capacity to harvest their own food, can access the foods.³⁶ While freezer use is increasing in popularity, there is a lack of program evaluation in food security literature,³⁷ which is critical in forming and bettering best practices for Inuit access to country foods. In response, Chris Furgal, who is an Associate Professor in the Indigenous Environmental Studies Program at Trent University in Ontario, Tom Sheldon, who is the Director of Environment for the Nunatsiavut Government, and a few others, conducted a case study to evaluate how a community freezer in Nain, Nunatsiavut influenced country food access in the community in the context of Arctic Indigenous food security.³⁸

Nain, the oldest Inuit community in Canada,³⁹ was chosen for the study for a number of reasons: stresses on access to country food for community residents had been reported; the Nunatsiavut Government's Department of Lands and Natural Resources, which is based in Nain, was looking for a partner to research community freezer programs to help inform its own planning; and lastly, Chris Furgal's long standing relationship with the Nunatsiavut Government and Nain had facilitated the establishment of a research partnership, making the study possible.⁴⁰ In order to gain local perspectives (a priority of the study) on community freezer issues, the study was conducted through interviews and focus groups with freezer users, managers, harvesters, and Elders, and through notes taken by participants to further contextualize the interviews.⁴¹

Strengths and Limitations of the Community Freezer in Nain

The study identified the capacity of the community freezer to facilitate as well as create barriers to country food access through economic, socio-cultural (human behaviors and attitudes), and

environmental factors, ultimately providing perspective on future community freezer management.⁴² The following points are the findings surrounding each factor:

- *Economic*: While participants agreed that the freezer had no financial commitment and offered risk-free access to country foods compared to the cost of harvesting foods (equipment including boats and snowmobiles), there was concern about people becoming dependent due to its feasibility.⁴³ Looking forward, securing country foods in the future poses an issue given increasing costs of doing so. Financial support for harvesters was one suggestion for promoting and sustaining country food consumption, however many struggled with this idea as it could take away from traditional sharing practices⁴⁴ which do not involve money.
- *Socio-cultural*: All participants agreed the “freezer contributed to traditional Inuit food sharing values and practices.”⁴⁵ At the same time, they expressed distress about not knowing who exactly the freezer was for. It was generally assumed to be for Elders and single mothers, so users articulated feelings of guilt for using when they did not fit that criteria.⁴⁶ It was recognized that the establishment of formal criteria may reduce feelings of exclusion, but that that also may not represent traditional sharing values, and that a better management and advertising plan is needed.⁴⁷
- *Environmental*: The harvesting of country foods for the freezer gave harvesters the ability of being out on land which was “widely recognized as an important aspect of Inuit identity, health, and wellbeing,” at the same time it connected users to their traditional lifestyle.⁴⁸ On the other hand, unsafe traveling conditions due to changing climate has led some harvesters to opt out of harvesting.⁴⁹ Changing climate also was seen to be affecting the availability of certain foods. During the time of the study, the weather had been described as “a year with significantly reduced ice cover and low availability of caribou,” which is one of the most preferred country foods in Nain.⁵⁰ With reduced ice, caribou don’t travel as close to Nain, and therefore require traveling farther and on unpredictable ice conditions in order to harvest. If it is difficult to harvest adequate amounts of caribou or other country foods for one’s own family, their ability and willingness to offer foods to the freezer will likely decrease.⁵¹ In this way, in the face of global, human activity induced environmental changes, the capacity and sustainability of community freezers in the future will likely be increasingly challenged.

Results

In all three aspects, the input from all groups of community members in Nain is indisputably necessary in analyzing the values and issues of community freezers. Moreover, in effectively sustaining community freezers in other locations, this study proves community member involvement in the management and bettering of such initiatives is required if changes are to positively affect and apply to the unique circumstances of each community.

The study found environmental conditions to be the primary concern among managers and users for future access to country foods.⁵² This supports the argument that Inuit access to country foods, and therefore Inuit well-being, is largely determined by the global community who is the biggest driver of climate change. In this way, it cannot go unrecognized that there is an international responsibility to acknowledge Inuit food security and to respond appropriately in order to uphold Inuit human right to their culture, health, and wellbeing.

Due, in part, to this study's findings, the Nunatsiavut Government and the Nain Inuit Community Government have worked together to modify their freezer initiative.⁵³ This demonstrates that the study's findings were important enough to encourage the local Governments to seek change because the issues and opinions of their community freezer were formally voiced. In this way, increasing the prominence of Inuit food security more broadly speaking within the Arctic Council would have an impact on the prominence of the issue and the promotion of increased studies by groups within and outside of the Council.

Scalability

Lastly, this study found the perspectives and ideas surrounding community freezers to be diverse, even within a single community. In other words, it is "important to consider food security as a managed process, and thus one formula is not likely to fit across multiple contexts or communities, to do so may not guarantee long term success. It will take a series of adjustments in response to changing socio-cultural, economic and environmental dimensions, informed by conversations that are in tune with the lived realities."⁵⁴ The study urges communities, governments, and policymakers to consider social and physical location as factors when investing in and monitoring such initiatives.⁵⁵ Ultimately, this study is valuable in assessing how community freezers, which are essential to community access to country foods, should be implemented and managed in the future. Therefore, the ideas presented in the three factors are

scalable across all Inuit communities as the main idea is that informed conversations with locals are necessary in formulating resilient initiatives in the future.

Focus 2: Alaskan Inuit Perspective on Food Security

Case Study: How to Assess the Arctic from an Alaskan Inuit Perspective Report

As Inuit voiced concerns in various forums about the impact of Arctic environmental changes on their food security, they realized they “were referring to something different than those [they] were holding discussions with.”⁵⁶ This report, created in response to that issue, illuminates food security through an Inuit perspective in order to provide a deeper understanding of the interrelationships within the Arctic ecosystem and to offer critical knowledge needed to make changes for resilient and adaptable food systems in the future.⁵⁷ The report is a collaborative effort that was written by 146 contributing authors (all of which are Indigenous Knowledge holders), the project’s Food Security Advisory Committee, and ICC-Alaska.⁵⁸ As recognized by the study on community freezers, “typical research on food insecurity is quantitative and little research focuses on the understandings of food insecurity from the perspective of Indigenous peoples.”⁵⁹ So, this report, published in 2015, stands as one of the first official Arctic reports from Inuit of the North American Arctic, and therefore is a major contribution to Arctic food security studies governed by Indigenous Knowledge.

To create the report, ICC-Alaska visited fifteen Alaskan Inuit villages to collect information from Indigenous Knowledge holders on the topic of food security through interviews and community meetings.⁶⁰ They gathered this information in order to identify drivers of food security and insecurity and to gain a fuller understanding of the issue.⁶¹ The findings were further analyzed within a number of workshops where selected participants approved information and added context where needed to support the communication of Inuit food security.⁶² In this way, they created a well-rounded and well-supported conceptual framework for Inuit food security.

Strengths & Limitations of Alaskan Inuit Food Security and Sovereignty

The conceptual framework represents that food security is characterized by environmental health, and that the latter is “achieved with the stability of six dimensions: 1) Availability, 2) Inuit Culture, 3) Decision-Making Power and Management, 4) Health and Wellness, 5) Stability and 6) Accessibility.”⁶³ All of these factors are held together by the spirit of everything [which is written in

all four Alaskan Inuit languages], and ultimately sustained by food sovereignty.⁶⁴ Therefore, this framework stresses the importance of connectivity and relationships within the Arctic, rather than taking a scientific approach which largely focuses on cause and effect correlations.⁶⁵ The six dimensions are defined and connected as follows:

- *Inuit culture* and identity is grounded in food. The “harvesting of traditional foods is how culture values, skills and spirituality are learned...how all learn to be within their environments and to be part of the ecosystem.”⁶⁶ So *availability*, which concerns the ability of the Arctic to maintain biodiversity and allows Inuit to collect, process, store and consume country foods⁶⁷ has the capacity to directly uphold or detract from Inuit culture.
- *Accessibility* refers to the access of land, ocean, and healthy food, animal, and water sources, as well as traditional sharing practices and the technologies needed to collect traditional foods.⁶⁸ With accessibility, the growth of *decision-making power and management* is possible as it allows for Inuit to support valued traditional practices and promote the use of both Indigenous and scientific knowledge to further Arctic research and wellbeing.
- Finally, *stability* refers to the ability to adjust as shifts in the ecosystem occur, which will be necessary to “ensure younger generations have sufficient healthy food,”⁶⁹ and therefore, to ensure the resilience and wellbeing of Inuit society. Stability is connected to the *health and wellness* of all life within the Arctic, which includes nutritional, mental, communal health, as well as environmental integrity to withstand changes,⁷⁰ as failure in health would destabilize Inuit adaptive capacity.

As a practical example of how these factors are connected and inter-dependent, the report examined the relationship between sea ice thickness and human and walrus health. When a young Inuk is taken out to learn how to hunt for walrus, there is an opportunity to learn language, pass down knowledge from older generations, become a provider by providing a first catch to an Elder, process caught food as a community, and make a connection between self-and cultural identity rooted in these practices.⁷¹ However, those opportunities depend on the ability to hunt walrus, which is affected by the availability and accessibility of walrus. As benthic species (a key food source for walrus) change in distribution because of thinning ice (due to climate change from pollution-producing human activities), walrus location changes in respect to that distribution.⁷² If walrus become less accessible, those opportunities are lost. Moreover, walrus provide material and food used in Inuit celebrations, feasts and art, among other things.⁷³

The art created is often sold, providing money to support walrus harvesting through the purchase of required equipment like fuel, tools, and bullets.⁷⁴ In this way, all aspects of environmental health and changes, species health and availability, and Inuit cultural and physical wellbeing are connected and inter-dependent.

Results

Like the community freezer report, the conceptual framework provided by ICC-Alaska underscores the necessity of Inuit involvement in researching, analyzing, and solving Arctic issues. Inuit livelihood is dependent and deeply connected with Arctic health as shown by the walrus example. In this way, Indigenous Knowledge and Inuit experience are both critical in local, national, and international forums that seek to understand the Arctic in order to create sustainable policies and practices. Additionally, the fact that “food is the cornerstone of [Inuit] culture and self- and shared identity,”⁷⁵ and that Inuit are the most affected by food security,⁷⁶ their involvement in solving the issue is necessary as solutions will directly apply to their communities.

From this report it can also be concluded that Inuit food security is largely driven by the international community. Human activities that are creating pollution, and which occur on a global scale, are driving increasing rates of climate change that is transforming the Arctic environment, as noted by previous chapters. These transformations which affect Arctic environmental health are in turn affecting Inuit health and food security.⁷⁷ In this way, the issue is not isolated, but rather requires global recognition and a global response in order to support Inuit health and wellbeing.

Scalability

This report is invaluable to the research of the Arctic Council and other investigators as it defines food security from an Inuit perspective, (different from the international definition), and the current effects food insecurity is having on Inuit. A fuller understanding of the issue will lead to more efficient and practical resolutions for Inuit food insecurity that can be implemented in a way that makes sense in order to sustain the Arctic environment and its people. With representative presence in the Arctic Council, ICC-Alaska was able to come together to create this report in an effort to clarify Inuit food insecurity to an international audience. This is a necessary step in gaining international support for furthering Inuit resilience, and may provide

incentive and opportunity for other Indigenous groups to conduct similar studies. The positive effects of increased studies on food security, like the Conceptual Framework, aids in increasing prioritization of Inuit food security, and is paving the way for a stronger Inuit voice in the international context, which will help to secure strong culture values and practices that are threatened by food insecurity.

IV. Policy Recommendations and Concluding Remarks

Policy Recommendations

After considering the meaning and impact of food security on Inuit, and in analyzing the effects that growing prominence of the issue has had on research in the area and on Inuit communities, the following policy recommendations are offered for the Arctic Council to consider:

1. The Arctic Council should promote the issue of food security in the Arctic on an international scale and pressure governments that are interested in obtaining Observer status to evaluate their national environmental policies which are ultimately affecting Inuit food security.
2. The Arctic Council United States Chairmanship should prioritize Indigenous food security in their agenda in order to increase recognition and understanding of the issue and encourage further research to identify best practices for the future.

Concluding Remarks

This chapter has defined food security from both an Inuit and an international perspective in order to identify that lasting effects on Inuit go beyond a lack of nutrition to include Inuit culture, tradition, and livelihood. It has also recognized that the issue exists within an international context and has documented the growing specificity and prominence of food security within the Arctic Council in order to analyze the effects that defining food security have had on Inuit communities. Through that analysis, the chapter concludes that Arctic Indigenous involvement in addressing the issue is critical and that narrowing the definition and prioritizing Inuit food security should be continued and increased in order to sustain and further Inuit livelihood and resiliency in the changing Arctic.

Moving forward, it is important to recognize the growth of the Arctic Council since it was established. The issue of food security and its prioritization within the Council is not only a successful development in promoting the well-being of Inuit, but is also a useful indicator of the growth and capacity of the Arctic Council, and groups within, to bring forth issues and be successful in voicing their importance. That being said, the Arctic Council is incrementally giving a voice to food security. It first promoted the international idea of food security and its relevance to the Arctic, then it began to promote the definition of Inuit food insecurity which falls closer to the heart of Arctic specific issues it was created to coordinate on.

In this way, the recommendation that the Arctic Council promote the issue of food security on a global scale is a way to use their capacity to draw international recognition to the issue. The Arctic is rapidly becoming a desirable region to hold a stake in as maritime and resource extraction opportunities among other things increase.⁷⁸ Countries are eager to be Arctic Council Observer States, creating the perfect opportunity to increase awareness about southern effects on the world's most northerly people. All countries who contribute to the environmental changes occurring in the Arctic should be held responsible for their actions that are hurting Inuit's human right to food. The Arctic Council would be effective in pressuring a number of governments to make environmentally friendly choices if it meant Observer status on the Council.

As stated by ICC International Chair Okalik Egeesiak and recommended in this chapter, food security for Arctic Indigenous people needs to be prioritized in the Arctic Council. While the issue is recognized and has had great progress, Inuit, who make up the youngest⁷⁹ population in Canada, and who are a rapidly growing,⁸⁰ are also the most effected by food insecurity.⁸¹ This means a large number of young people are lacking necessary nutrition and country foods, valuable education on self-identity, and access to productive and stimulating cultural practices. In this way, the Arctic Council should prioritize Inuit food security, in turn promoting Inuit wellbeing by securing the means for educational success, mental wellness, and ultimately a healthy and resilient Inuit population.

NOTES

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⁸ The Canadian Encyclopedia, "Inuit," *Historica Canada*, available at <http://www.thecanadianencyclopedia.ca/en/article/inuit/>.

⁹ Council of Canadian Academies, *Aboriginal Food Security in Northern Canada*, 43.

¹⁰ Inuit Tapiriit Kanatami. *Social Determinants of Inuit Health in Canada*, 2.

¹¹ Ibid., xv.

¹² Jennifer Organ, Heather Castleden, Chris Furgal, Tom Sheldon, and Catherine Hart, "Contemporary Programs in Support of Traditional Ways: Inuit Perspectives on Community Freezers as a Mechanism to Alleviate Pressure of Wild Food Access in Nain, Nunatsiavut," *Health & Place* 30 (2014): 252, doi:10.1016/j.healthplace.2014.09.012.

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¹⁶ Arctic Council, "Inuit Circumpolar Council (ICC)," Arctic Council, last updated September 30, 2015, available at <http://www.arctic-council.org/index.php/en/about-us/permanent-participants/icc>.

¹⁷ Inuit Circumpolar Council-Alaska, *Alaskan Inuit Food Security Conceptual Framework*, 5.

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- ⁶⁵ *Ibid.*, 24.
- ⁶⁶ *Ibid.*, 13.
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- ⁷¹ Ibid., 18.
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CHAPTER 5

PROMOTING MENTAL WELLNESS & RESILIENCE IN THE ARCTIC

By Claire Wang

Abstract

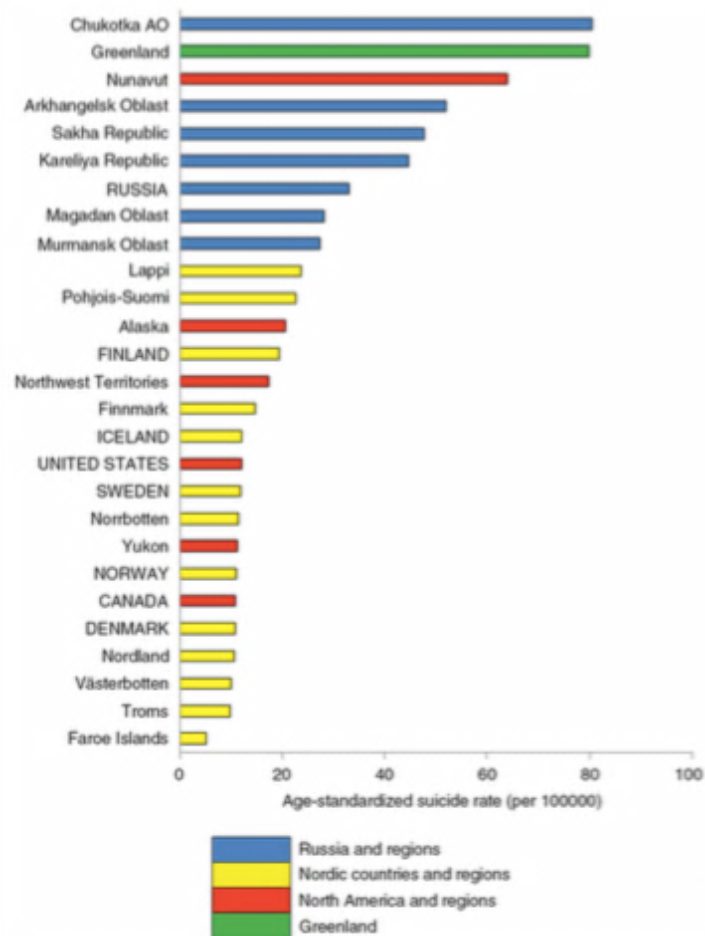
This chapter focuses on Indigenous population's mental health, as an issue that remains a cross-generational challenge in the North, hindering Indigenous communities from achieving their full potentials and developing young leaders needed for the future. Suicide rates across circumpolar regions have been and are currently astonishingly higher than anywhere else in the world. This chapter's ultimate goal, is to seek practical solutions for the question regarding how the Arctic Council can continue its effort and succeed in improving Indigenous peoples' mental wellness across all circumpolar regions. In the context of the twentieth anniversary since the founding of the Arctic Council, this chapter will review the Council's past initiatives on mental health, the current status-quo of mental health issues in the Arctic, and the Council's future agendas for addressing issues related to mental illness among Indigenous Peoples. This chapter will also highlight three key regions' good case practices, discuss their scalability, identify the determinants of success, and then suggest actionable items for the Arctic Council to implement towards promoting Indigenous well-being in the Arctic.

I. Background

Understanding the Issue

Why should mental wellness be a critical matter for the Arctic Council to address with its Member States, Permanent Participants as well as Observers? The alarming data of suicide rates across Arctic regions from the *International Journal of Circumpolar Health* can illuminate the magnitude and extent of the problem.¹

The figure below presents the mean age-standardized suicide rate for the decade 2000-2009 in the eight Arctic States and their northern regions, with the top three ranked regions being Chukotka in Russia, Greenland and Nunavut in Canada². These are also regions with a high proportion of Indigenous peoples – approximately 30% in Chukotka, 90% in Greenland, and 85% in Nunavut³. Therefore, this chapter will later take a closer look at these three particular regions to explore the respective root causes of the high suicide rates and potential solutions.



It is also worth noting that people in the Circumpolar North do not all enjoy the same overall health – there are substantial disparities among countries and regions, and within regions among population subgroups between Indigenous and non-Indigenous people⁴. According to the Arctic Human Development Report, circumpolar regions basically fall into four groups in terms of their health status⁵:

- The Nordic countries – there is generally little difference between north and south, or between Indigenous and non-Indigenous people.
- Alaska, Yukon, and Northwest Territories – health status in these jurisdictions is comparable to, or even better than the national average of the United States and Canada; but **there are significant disparities between Indigenous and non-Indigenous people**.
- Greenland and Nunavut – with over 85% of the population Indigenous, there is a **wide gap in health status** between these regions and Denmark and Canada.

- The Russian Arctic – for almost any health indicator, the Arctic region of Russia tend toward the lower end of the spectrum.

Suicide Among Youth

Suicide among youth is particularly high in Greenland and Nunavut. One characteristic of youth suicides is their tendency to occur in clusters, with devastating impact on small communities⁶. The primary reason for this phenomenon is that some youth view suicide as a way of connecting with other youth who have killed themselves, including their friends, for similar reasons along the same life path.⁷ While suicide statistics are key indicators of mental health status in the Arctic, they are only the tip of the iceberg – “for every suicide there are many more suicide attempts and individuals harboring suicidal thoughts”⁸. Thus, this chapter aims to focus on exploring not just solutions to prevent suicide and injuries caused by mental illness, but more importantly programs that build resilience in the youth and their communities.

Past Commitments of the Arctic Council

Mental wellness has been a persistent issue on the Arctic Council's recent agenda. The Ottawa Declaration on the Establishment of the Arctic Council in 1996, although not explicitly mentioning mental wellness, affirmed the founding members' commitment to “the well-being of the inhabitant of the Arctic” and to “sustainable development in the Arctic region ... including improved health conditions and cultural well-being”⁹. In the recent declarations by the Arctic Council, the language related to mental wellness has become increasingly specific.

Declarations

In February 2011, Health Ministers and representatives from Member States of the Arctic Council collectively signed the Arctic Health Declaration in Nuuk, Greenland. It pledged to “enhance mental health and prevention of substance abuse and suicides through exchange of experience and good practices”¹⁰. The 2013 Kiruna Declaration, which set the priorities for Canada's Chairmanship, highlighted the need to improve economic and social conditions in the Arctic and signaled the intention of Arctic Council Member States to “undertake further work to improve and develop mental wellness promotion strategies”¹¹. The 2015 Iqaluit Declaration recognized “the importance of improving health, mental wellness and resilience in Arctic communities” and encouraged “continued collaborative and innovative approaches to address health issues in the

Arctic"¹². Therefore, it is clear that there is a consistent need within the Council to address mental wellness, as seen in the recent declarations' increasing attention to this issue.

Deliverables / Achievements

How effective were the Arctic Council's past initiatives in promoting mental wellness? The Sustainable Development Working Group (SDWG), one of the six working groups under the Arctic Council that is primarily responsible for carrying out projects and activities regarding Arctic human health¹³, has initiated community-based research projects and produced comprehensive reports with specific policy recommendations for respective Arctic nations to consider. The project "The Evidence-Base for Promoting Mental Wellness and Resilience to Address Suicide in Circumpolar Communities" had two research teams assess circumpolar approaches to mental wellness and the potential for adapting interventions in other regions¹⁴. A report called "Sharing Hope" was published in 2015, which highlighted case practices across six Arctic communities and emphasized the importance of having culturally-grounded solutions that are community-based and community-driven¹⁵. Additionally, the SDWG produced the Arctic Human Development Report II, which provided a decadal update and synthesis report on the state regarding human development in the Arctic, and contributed to increased knowledge and understanding of the consequences and interplay of physical and social processes of global change on human living conditions and adaptability in the Arctic¹⁶. There is no doubt that the SDWG has made progressive accomplishments in terms of assessing mental health related data in the Arctic, engaging Indigenous communities in the process of benchmarking successful mental wellness programs and approaches, as well as identifying limitations and challenges to sustain projects. However, as this chapter will later discuss, no tracking and evaluation method of health-related programs has been established by the Council to provide further guidance for the Arctic states to act upon recommendations from the SDWG reports.¹⁷

Upcoming Agenda

During the 2015-2017 chairmanship period of the United States, the Arctic Council may foresee a consistent focus on promoting mental wellness in the Arctic. At the Presentation of the U.S. Chairmanship in April 2015, the U.S. Secretary of State John Kerry emphasized the U.S.' continuous effort to improve the lives of the Arctic people, part of which includes "creating tools to improve mental health"¹⁸. In terms of future planning from 2015-2017, the Sustainable Development Working Group has the agenda to operate "One Health" – an interdisciplinary approach to assess

health issues that considers the connection between human health, animals and the environment, and to enhance the ability of health workers and policy-makers to scale-up suicide interventions and measure progress through common metrics.¹⁹

Learning from Existing Challenges & Solutions

As identified earlier in the chapter, Nunavut, Greenland, and Chukotka Inuit have the highest suicide rates among the eight Arctic states and their northern regions.²⁰ We will now discuss Inuit health situations and the root causes for mental illness in these three specific regions, evaluate several case studies serving these communities, and identify the programs' strengths and limitations that decide whether they can be sustainable and scalable solutions.

II. Regional Analysis

Region 1: Nunavut

Situation of Indigenous People

As of 2009, the suicide rate among Inuit in Nunavut, Arctic Canada was 83.9 per 100,000, while that for Canada as a whole in 2008 was only 11.7 per 100,000.²¹ Suicide began to rise among Inuit youth in Nunavut in the mid-1980s.²² Michael Kral suggests that suicide rises emerged in part from the historical era of colonialism – the Canadian government's intervention in the Arctic in the 1950s and 1960s, when children were forced to attend day schools in the settlements, or residential schools where they experienced sexual abuse.²³ Inuit have felt the impact of colonialism on social problems including intergenerational segregation, hunting, parenting, visiting and feelings of closeness, and romantic relationships.²⁴ While the elders were adults when they moved to the settlements, the middle-aged Inuit were taken away to school as children and many developed subsequent problems with alcohol and domestic violence.²⁵ Many Inuit youth today are feeling alone or disconnected from their families. It is therefore important to acknowledge that youth, adults and elders are each experiencing a different aspect of colonial oppression, in order to understand the mental issues they are struggling with.²⁶

Case Study: The Makimautiksat Youth Wellness and Empowerment Camp

The Makinautikat Youth Wellness and Empowerment Camp was launched in 2011 in five Nunavut

communities.²⁷ It is an evidence-based and culturally relevant program for nine to twelve year-old Inuit youth, with a focus on fostering wellness, positive Inuit identity, community building and skills building.²⁸ The youth spend their first seven days in the community participating in activities including hands-on arts projects, community events or gathering and group dialogues. They spend their last two days and nights on the land learning about harvesting food, living on the land and learning from the elders.²⁹ Each day, an elder or community member shares a story or knowledge, such as “drum-making, edible plants, nursing, healthy relationships, preparing nutritious meals and academic pursuits”.³⁰

Results

The program received positive feedbacks from the youth, their parents as well as the communities. Early survey results show that “youth felt an increase in self-esteem, stronger peer and community relationships, a greater willingness to talk to someone about a problem, and greater interest in traditional Inuit activities”³¹ after attending the camp. Parents reported significant changes in their children's attitude and behavior, including “less anger, increased engagement with peers, increased engagement with parents, and expressing feelings of happiness and joy at home”³². Beyond the strong support from the communities where the summer camp took place, there have been many requests from other communities to deliver the program, however funding is an issue.³³

Strengths

The program is designed to meet the needs of young Nunavummiut and to work with existing community capacities, resources, and the infrastructure realities.³⁴ It also respects Inuit relational society and the importance of family, peer, and community relationships to achieve wellness. Therefore, involving health role models like youth mentors, elders and community members as a core component of the camp has proved to be successful.³⁵

Scalability

Although the program content is currently Inuit-specific, it could be adapted to meet the needs of other populations based on their languages, traditions and cultures.³⁶ It is also promising to explore the possibility of adapting the program as a curriculum resource for schools and after school programs.³⁷ One challenge for this program in regards to upscaling will be to secure sustainable funding, considering that each camp currently costs about \$10,000 to run.³⁸

Region 2: Greenland

Situation of Indigenous People

The incidence of youth suicides has increased dramatically among the Inuit in Greenland since modernization started in the 1950s.³⁹ Although there is a definite correlation between rising suicides and several aspects of the modernization process, it is hard to pinpoint causal relationships.⁴⁰ Bjerregaard and Lynge argue that it is the “modernization package” that should be regarded as a risk factor for suicides among Inuit youth⁴¹, including a sense of loneliness that can vary from the lack of personal companions, the lack of sense of belonging to groups, cultural disintegration, or lack of contact with nature.⁴² The present day suicides in Greenland are an “ambiguous giving up”, in other words the young people see no meaning in their lives.⁴³ Therefore, it is critical for mental wellness strategies in Greenland to focus on building resilience and hope in youth.

Case Study: The National Strategy for Suicide Prevention Policy Intervention in Greenland

The National Strategy for Suicide Prevention Policy Intervention was adopted by the Greenland Parliament in 2004, representing a new approach to suicide prevention based on the guidelines from World Health Organization and the Ottawa Charter for Health Promotion.⁴⁴ The main objective of the program is to “make suggestions aimed at reducing the large number of suicides and attempted suicides seen in Greenland every year”⁴⁵. Strategies include:

- Ensuring that people at risk of committing suicide is identified;
- Giving people belonging to the known risk groups, opportunities to seek advice and receive treatment – particularly young men;
- Working against the perception of suicide as a way to solve problems encountered in life, particularly among young people, and to promote the attitude that it is worthwhile to help;
- Increasing the well-being of young people and people in general as well as their ability to tackle conflicts and the challenges they encounter in life;
- Strengthening the ability of local communities and voluntary organizations to carry out suicide preventive work;
- Evaluating individual initiatives and the action plan as a whole.⁴⁶

Results

Continuously and rigorously evaluated, the program focused on multi-sectoral collaborations and the collective strength of the multiple organizations and institutions working to reduce deaths by suicide in Greenland.⁴⁷ As a result, this national approach made it easier to implement a given action or intervention throughout the country and share ideas and results across regions.⁴⁸ It also served as an important platform for public and political discussions about the problems of suicide in Greenland, which has been largely tabooed for many years.⁴⁹

Scalability

Although the nationwide approach helped better guide and track how multiple stakeholders can work towards promoting mental wellness in Greenland, it was challenging to engage all sectors and the quality of the preventative work at the local level were dependent on priorities and resources in the given municipality.⁵⁰ Thus, the strategy itself created a foundational framework to initiate suicide prevention activities. However, it needs to be coupled with localized programs on youth resilience to improve its impact across Greenland.

Region 3: Chukotka

Situation of Indigenous People

The two major groups of Indigenous people in Chukotka are the Chukchi and the Eskimos.⁵¹ Since the breakup of the Soviet Union, Chukotka underwent massive social and economic changes.⁵² Poverty and unemployment among indigenous people promotes a host of poor health and social conditions.⁵³ Underdevelopment of public health services and general infrastructure in Indigenous villages have resulted in high infant and general mortality.⁵⁴ Since the 1990s, Chukotka's population has shrunk to a third of its former size due to the emigration of non-indigenous people and mostly the younger generation, with a corresponding increase in the mortality rate due to aging of population.⁵⁵ Today, Chukchi and Eskimo languages are considered native to only one-third of the Indigenous people due to the Total Russification of school education in the Soviet period. Russification was a form of cultural assimilation process during which non-Russian communities gave up their culture and language in favor of the Russian one⁵⁶, when Indigenous children were forbidden to use their native languages in schools.⁵⁷ There has been an effort to revive the Chukchi language – it is widely used in art, political literature and the mass media,

taught in many settlements and included in high school programs.⁵⁸ Therefore, enhancing connections to heritage and improving public health infrastructures will be crucial to promote mental wellness in Chukotka.

Case Study: Marathon Lifelong Health

The Marathon Lifelong Health Project was a health expedition launched in March 2009 in Chukotka, when specialists from the Red Cross health experts visited three districts – Kanchalan, Ust-Belaya, and Snegnoe within the period of a month.⁵⁹ The expedition consisted of psychotherapists, psychiatrists and other health experts who gave advice to local residents and provided medical and psychological help to people suffering from alcohol dependence.⁶⁰

Limitations

Based on the Inuit Circumpolar Council's report "Circumpolar Inuit Health Priorities: Best Health Practices and Research" in 2012, Marathon Lifelong Health was the only program related to mental health identified in Chukotka.⁶¹ The limited amount of existing studies and programs in Chukotka Russia reflects a stark difference in mental wellness initiatives between Russia and other Inuit countries.⁶² The lack of case studies in Chukotka could also be due to the small number of Inuit living in the region (less than 2,000) compared to Inuit in the other two homelands: Canada and Greenland (around 50,000 each).⁶³ Nevertheless, Chukotka have continued to suffer from limited resources and isolation despite some recent decisions by the Russian Government to increase health spending overall.⁶⁴

Ingredients of Success: Community-Based, Culturally Relevant & Youth-focused

Based on the above three regional analyses, it is noticeable that there are still significant gaps across Inuit communities in Canada, Russia and Greenland in terms of Indigenous health status and program initiatives.⁶⁵ Regarding best practices, ICC's report in 2012 indicates that Canada has the strongest emphasis on mental health.⁶⁶ However, many of the health and wellness challenges are similar, shaped in part by Inuit communities' shared uniqueness of the pan-Inuit experience despite their geographic locations or national boundaries.⁶⁷ Thus, the purpose of benchmarking scalable programs should be to summarize the key factors that led to the success of past programs on mental wellness. In this way, communities currently in lack of sustainable programs can learn from these success patterns, and tailor the existing projects into their own

future solutions.

From the six case practices in the “Sharing Hope” report⁶⁸, the common themes that made these programs scalable include having a “sense of control” over one’s own life, moving from helplessness to self-control, self-determination, community engagement, cultural competencies, and sustainable core funding.⁶⁹ Several promising practice models for other circumpolar communities to potentially adopt include: cultural and land-based programs, programs that focus on building capacity of youth and elders, teaching life skills, healing/grieving workshops, training teachers in suicide prevention, programs about stigma reduction, programs with a family or community focus, teaching community members about resilience promotion and suicide prevention.⁷⁰

Additionally, the Inuit Tapiriit Kanatami’s report on “Social Determinants of Inuit Health in Canada” also confirms the importance of cultural relevance and community focus as key positive efforts in addressing mental wellness.⁷¹ Specifically, ITK recommends that mental health programs should be “expanding culturally relevant mental wellness programs and supports, supporting Inuit-specific research and training focusing on mental health, and developing community-based initiatives in support of suicide prevention”.⁷²

On the other hand, it is equally important to put an emphasis on building resilience in youth for future programs on mental wellness. Michael Kral, a clinical-community-cultural psychologist and medical anthropologist, highlights the sustainable impact on communities when youth can take ownership of their own well-being.⁷³ “What successful communities had in common was that they developed the collective self-efficacy for action themselves”⁷⁴. In each community he has written about, Inuit youth’s action for their own wellness represents a local social movement, as youth self-determination becomes a local reality and identity for young Inuit.⁷⁵

Consequently, based on case practices on mental wellness as well as opinions from scholars and Indigenous groups such as ITK, there is an identical advocacy that mental wellness initiatives should be community-based, culturally relevant and youth-focused in order to have sustainable long-term impacts.

III. Current Debate

As the chapter moves toward concluding current efforts and the success factors of mental

wellness initiatives across Inuit communities, it is important to note that there is an ongoing debate about who should control suicide prevention, and what is the best knowledge base for it.⁷⁶ Canadian psychiatrists who conducted studies of Nunavut populations have been advocating that any suicide prevention strategy in Inuit communities should include mental health interventions aiming at treating psychiatric conditions and broader population-level mental health promotion to improve family environments.⁷⁷ During our Task Force visit at Nunavut Sivuniksavut, an Ottawa-based college program for Inuit youth, the teacher offering trauma classes also believed in the need of training more practitioners, as well as increasing more counselling services and clinics in Nunavut communities. On the other hand, Michael Kral reveals the polarization between psychiatric and Indigenous/community methods of healing, through evidences that government-based intervention approaches to mental health are not working well, and traditional cultural healing practices often take place outside of the mainstream clinics in these communities.⁷⁸ Mental health professionals have visited Inuit communities, and expensive suicide intervention training was conducted with select community members in the late 1990s.⁷⁹ Yet, the suicide rate has remained high despite this intervention, as indicated in the following graph⁸⁰:

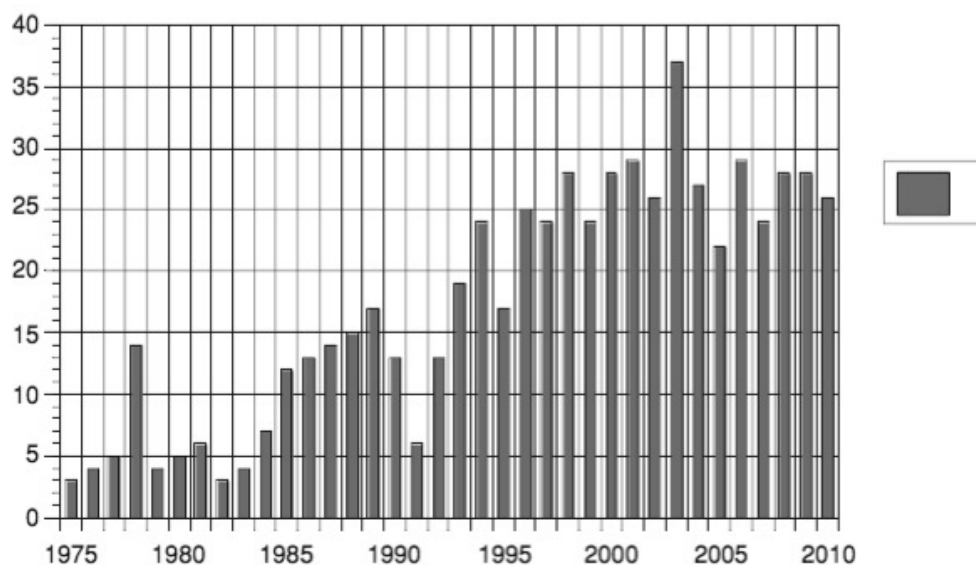


Fig. 1 Suicide in Nunavut, 1975–2010

Kral also identifies a split between the “scientifically” research-minded members and the Inuit community-based members on how to best address suicide prevention in Nunavut, during the making of the 2010 report on suicide prevention strategies by the Government of Nunavut.⁸¹ In the planning meetings, the scientifically oriented members, who were the majority, rejected the

other committee that included elders and youth from Inuit communities in the different regions of Nunavut.⁸² The process of these meetings was focused on graphs and other statistical information, rather than on reports from community members or information about Inuit colonial history and current social life.⁸³

Therefore, it is necessary to take into consideration that currently there is no consistent voice on who knows best about promoting mental wellness for Indigenous people in the Arctic. Based on this chapter's previous case studies, a common trend can be observed that programs that allow communities to take control over their own suicide prevention, leverage their own strengths and resources, and connect youth with elders prove to significantly benefit the communities more than those that does not take the cultural and communal approach. One promising example is that Health Canada of the Canadian government recently began the National Aboriginal Youth Suicide Prevention Strategy, which funds communities and Indigenous organizations to develop and run their own suicide prevention programs, rather than bringing Western mental health programs into Indigenous communities.⁸⁴

IV. Policy Recommendations & Concluding Remarks

Policy Recommendations

Based on the analysis of past initiatives, current case practices, and future solutions to promote mental wellness of Indigenous people in the Arctic, this chapter recommends the following policy options for the Arctic Council to consider:

1. The Arctic Council Sustainable Development Working Group should establish an impact measurement standard for mental health programs across circumpolar regions, update tracking data on a yearly basis, and analyze the effectiveness of mental health programs accordingly.
2. The governments of the Arctic Council Nation States should immediately establish funding mechanisms that specifically support Indigenous communities and organizations to develop their own mental health projects, with a focus on building resilience in youth.
3. The Arctic Council Sustainable Development Working Group should initiate collaboration with the Inuit Circumpolar Council and the Russian Association of Indigenous Peoples of the North, to raise the urgency of addressing mental illness in Greenland and Chukotka and advocate community-based, culturally relevant and youth-focused solutions.

Concluding Remarks

This chapter has reviewed the Arctic Council's past initiatives on mental wellness and their effectiveness. It has also illustrated the value of building community-based, culturally relevant and youth-focused programs through case studies and current debates. Now the chapter will conclude by suggesting actionable strategies for the Arctic Council to implement in order to build sustainable and impactful mental wellness agendas in the future.

Measurement Model

As mentioned at the beginning of this chapter, the Arctic Council currently lacks program evaluation methods to demonstrate any measurable effect in reducing suicidal behaviors or long-term impact.⁸⁵ However, the Arctic Council has increased its effort to create such common metrics for evaluating suicide prevention efforts in the Arctic as a key component of scaling up and evaluating interventions across the circumpolar region.⁸⁶ The Sustainable Development Working Group, under the U.S. Chairmanship from 2015-2017, is in the process of establishing the Rising Sun project to “aid health workers and policy-makers in measuring progress and identifying challenges by facilitating data sharing and pooling, evaluation, and interpretation across service systems”⁸⁷.

Olga Ulturgasheva, an ethnographic researcher on childhood and adolescence, reindeer herding and hunting in Siberia and Alaska, introduces a sliding scale model that emerged from a comparative analysis of adolescent experiences across five circumpolar communities.⁸⁸ The model appears promising for the Arctic Council to adopt.⁸⁹ It captures “the contingency and interdependence of resilience and vulnerability and their fluctuations between lowest and highest points based on timing, local situation, larger context, and meaning”⁹⁰. The graphic below illustrates the ways in which youth move from adaptive and resilience-promoting actions to maladaptive and more risk-associated behaviors.⁹¹ As an example, one positive factor that moves young people towards the acquisition of resilience is the opportunity to share.⁹² The practice of sharing remains an important facilitator of communal solidarity and is a key component in maintaining exchange and kinship relationships between persons, households, and residential communities.⁹³ Sharing can be extended beyond material exchange, to the sharing of one's living space through the provision of safe, non-violent, and welcoming homes for family members, friends, or neighbors in need of such space.⁹⁴

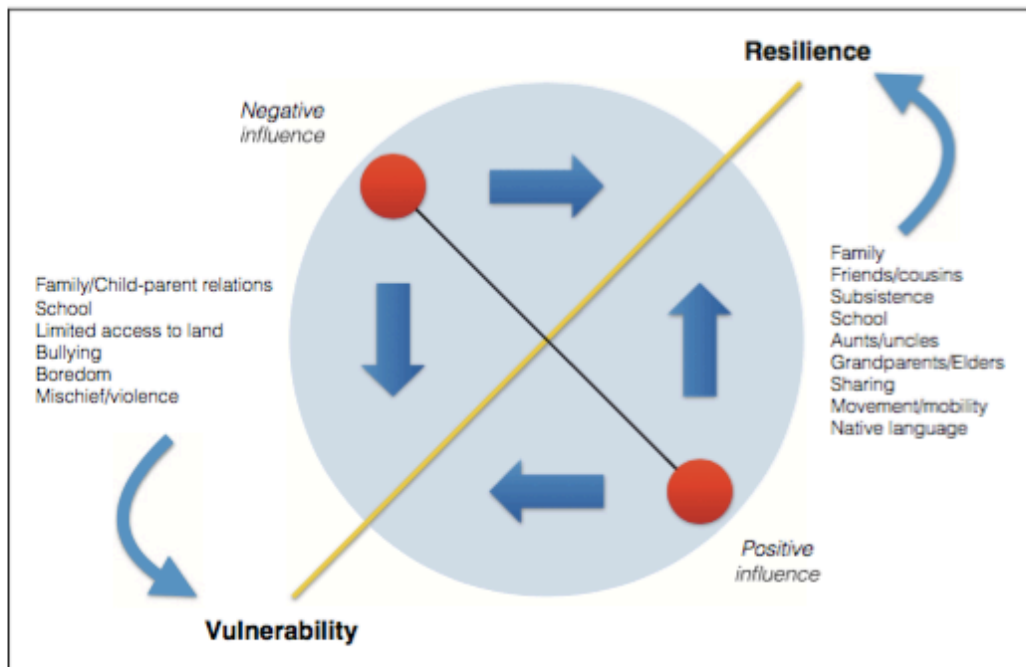


Figure 1. Sliding scale of “positive” and “negative” influences moving between resilience and vulnerability.

Since the sliding model incorporated extensive analysis across five Indigenous communities – Alaskan Yup’ik, Alaskan Inupiaq, Canadian Inuit, Norwegian Sami, and Siberian Eveny, it provides collaborative approaches to explore contemporary youth experiences and resilience.⁹⁵ Now that the Arctic Council is exploring metrics to evaluate mental wellness efforts across circumpolar communities, it will be worthwhile to move beyond assessing suicide prevention strategies and adopt measurements of resilience factors to capture the continuously evolving nature of Indigenous people’s mental status.⁹⁶

Young people in Arctic communities are still drawing from community strengths and culturally integrated mechanisms of protection as they creatively reimagine and strategically gain access to available resources.⁹⁷ Young people remind individuals working towards mental wellness in the Arctic that enough is known about the problem; it is now time to focus on the solutions at the practical level among governments, Indigenous Peoples and health professionals to foster mental wellness locally and on the ground.⁹⁸

NOTES

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¹⁷ T. Kue Young, Boris Revich, and Leena Soininen, 7.

¹⁸ The United States of America's delegation to the Arctic Council, "Remarks at the Presentation of the U.S. Chairmanship Program at the Arctic Council Ministerial," 2015. <https://oaarchive.arctic-council.org/handle/11374/913>.

¹⁹ Arctic Council, "Senior Arctic Officials' Report", 73.

²⁰ T. Kue Young, Boris Revich, and Leena Soininen, 2.

²¹ Michael J. Kral, "Postcolonial Suicide Among Inuit in Arctic Canada," 307.

²² Ibid.

²³ Ibid, 312.

²⁴ Ibid, 317.

²⁵ Ibid.

²⁶ Ibid, 319.

²⁷ Sustainable Development Working Group, "Sharing Hope", 9

²⁸ Ibid.

²⁹ Ibid.

³⁰ Ibid.

³¹ Ibid, 10.

³² Ibid.

³³ Ibid.

³⁴ Ibid,11.

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- ⁶¹ Ibid, 20-21.
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- ⁶⁴ Ibid.
- ⁶⁵ Ibid, 20.
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- ⁶⁸ Sustainable Development Working Group, "Sharing Hope".
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⁷⁷ Eduardo Chachamovich, Laurence J. Kirmayer, John M. Haggarty, Margaret Cargo, Rod McCormick, and Gustavo Turecki, "Suicide Among Inuit: Results From a Large, Epidemiologically Representative Follow-Back Study in Nunavut," *Canadian Journal of Psychiatry Revue Canadienne De Psychiatrie* 60, no.6 (June 2015): 268-275, <http://www.ncbi.nlm.nih.gov.offcampus.lib.washington.edu/pmc/articles/PMC4501584/>.

⁷⁸ Michael J. Kral, "Postcolonial Suicide Among Inuit in Arctic Canada," 306.

⁷⁹ *Ibid.*, 307.

⁸⁰ *Ibid.*

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⁸⁵ T. Kue Young, Boris Revich, and Leena Soininen, 7.

⁸⁶ Sustainable Development Working Group. "Sustainable Development Working Group, Work Plan for 2015-2017." Accessed February 20, 2016. <http://www.sdwg.org/project/sdwg-work-plan/>.

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⁸⁸ Olga Ulturgasheva, Stacy Rasmus, Lisa Wexler, Kristine Nystad, and Michael Kral, "Arctic indigenous youth resilience and vulnerability: Comparative analysis of adolescent experiences across five circumpolar communities," *Transcultural Psychiatry* 51, no. 5 (2014): 735, accessed February 9, 2016. doi: 10.1177/1363461514547120

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CHAPTER 6

POST-SECONDARY EDUCATIONAL OPPORTUNITIES FOR INUIT

By Elizabeth Castro

Abstract

This chapter explores long-held interest for an Inuit Universityⁱ in the Canadian Arctic and addresses the promising initiatives that are shaping an Inuit university into reality. Since 1977, Inuit leaders have been involved in proposing an Inuit University, and they advocated for the University of the Arctic since its inception. Today the Sustainable Development Working Group and the University of the Arctic are part of the existing infrastructure an Inuit University can build upon for visibility in the Arctic Council and relationships for collaboration. Further, post-secondary programs, such as Nunavut Sivuniksavutⁱⁱ and youth leadership development programs enhance the potential for Inuit University partnerships. Through an Inuit University, the Canadian government could demonstrate commitment to fulfill Canada's Arctic policy and progress toward greater reconciliation. Regarding Canadian initiatives for an Inuit University, special attention is placed on the National Strategy on Inuit Education and the 2015 Inuit Nunangat University Workshop Report and how they were written with Inuit values and languages in mind. Inuit post-secondary education is critical at the circumpolar level because the educational achievement of today's Inuit students is creating the emerging leaders that will be active in forums such as the Arctic Council.

I. Background

Inuit post-secondary education has great potential for unifying expansive geographic regions and capturing an astounding shared history in Canada. Amongst approximately 60,000 Canadians, the Inuit population is young. The National Strategy on Inuit Education from 2011 cites 56% of the population is less than 25 years old. ¹ The four regions of Inuit Nunangat, or Canadian Inuit homeland, stretch across the northern Arctic part of the nation, where many Inuit today live in small-sized communities that span a wide geographic region.² In the territory of Nunavut alone, there are approximately 30,000 individuals spread across twenty-seven isolated communities.³ Additionally, many Inuit today live in bustling Southern Canadian cities. Beyond Canada, Inuit are dispersed across Russia, U.S.A (Alaska), and Greenland. Canada is often quoted as being the only country that does not have a university in its Arctic region. More specifically, the Canadian National Strategy on Inuit Education underscores that 75% of Inuit

ⁱ For purposes of clarity, I refer to the proposed Canadian university as Inuit University, identified in some sources as Inuit Nunangat University or "northern university based on Inuit culture and language." I distinguish this as separate from the University of the Arctic, a circumpolar body.

ⁱⁱ The Task Force team visited Nunavut Sivuniksavut as part of its research trip to Ottawa in January 2016.

children are not completing Grade 12⁴ demonstrating the potential for educational progress. This makes an analysis of Canadian post-secondary programs for Inuit an exemplar focal point at the Inuit-nation, nation-state, and circumpolar level. Expanded Canadian Inuit post-secondary programs prompt the conservation and expansion of Inuit-focused traditional knowledge, language and values.

This chapter explores long-held interest for an Inuit University in the Canadian Arctic and addresses the increasing momentum to make a university into a reality. Since 1977, Inuit leaders have been involved in proposing an Inuit University, and they advocated for the University of the Arctic, since its inception. Today the Sustainable Development Working Group and the University of the Arctic are part of the existing infrastructure an Inuit University can build upon through partnerships for collaboration and visibility in the Arctic Council. This chapter explores Initiatives such as the National Strategy on Inuit Education and the Inuit Nunangat University Workshop Report of 2015, which set forth the importance of embodying Inuit values and languages in an Inuit University. Through an Inuit University in the Arctic, the Canadian government could demonstrate commitment to Arctic communities through a realization of its Arctic policy and as an indicator toward reconciliation. The University of the Arctic, an Arctic Council Observer, holds promise for lending support toward implementation of an Inuit University and as a future partner. Further, Post-secondary program such as Nunavut Sivuniksavut and leadership development programs for students enhance potential Inuit University partnerships.

Inuit post-secondary education is critical at the circumpolar level because the educational achievement of today's Inuit students is creating the emerging leaders that will be vocal and active in forums such as the Arctic Council. According to Rodon et al., the percentage of Inuit with a university degree is 2.7%, based on figures from 2006.⁵ Serving more Inuit students in post-secondary programs sets the stage toward greater inclusion of indigenous peoples in Arctic Council debate, dialogue, and decision-making and holds implications for indigenous representation in Arctic diplomacy and stewardship. In the days when Arctic and circumpolar issues were starting to emerge on a global stage, it was Inuit representatives who were already connecting development in the Arctic to an Inuit University.

The Inuit Circumpolar Council Posits an Inuit University

Inuit have articulated their desire for an Inuit University in the past through official statements produced by the Inuit Circumpolar Council ⁱⁱⁱ (ICC). Today the ICC is a leading multi-national NGO representing Inuit across four Arctic nation states and a Permanent Participant in the Arctic Council. Within ICC statements lies some of the early traces for current Inuit University proposals. In 1977, with the creation of the Inuit Circumpolar Council, Inuit came together from across the circumpolar region. The first statement by the Elected Officials of the First Meeting of the Inuit Circumpolar Conference is a snapshot of Inuit concerns of the time. As some of the cornerstone resolutions for the creation of the ICC, whether a resolution was acted upon or not, it still demonstrates what was at the forefront in the minds of Inuit leaders. Resolution 77-04 states, Inuit desire to strengthen their mutual identity through the use of the Inuit language...and the adoption of educational philosophy to promote Inuit academic excellence; Now, Therefore, Be It Resolved that the Inuit Interim Committee seriously considers the creation of an Inuit Nunaanni Illinniartulirijit (International Committee for Inuit Education, Culture and Language)...that this Committee be responsible...to explore the possibility for an Inuit University ⁶

As perhaps one of the earliest documented statements on an Inuit University, this resolution underscores post-secondary education has been a concern to Inuit leaders for decades. The wording of the document outlines an "Inuit University" as a choice word rather than a Northern, Arctic, or nation state institution. Exploring an initiative for an Inuit University seems to plant the seeds toward fostering a more Pan-Inuit identity, in the resolution described a strengthening "a mutual identity." Given the interests expressed in the Resolution, an Inuit University would naturally support Inuit students and Inuit languages. Thus, this resolution provides insight into possible projects Inuit leaders aimed to secure for Inuit at the circumpolar level. The ICC, in later years propelling the creation of the Arctic Council, represented Inuit leaders simultaneously aspiring that this additional forum might support ICC goals in the field of Education.

Inuit as Advocates and Stakeholders for the University of the Arctic

In comparing Inuit Circumpolar Conference documents from 1977 to 1998, there is a shift from an Inuit University to a broader, circumpolar post-secondary project, the University of the Arctic (or UArctic). Inuit leaders recognized the potential for a University of the Arctic as a project that

ⁱⁱⁱ The Inuit Circumpolar Council began as the Inuit Circumpolar Conference.

could be inclusive of Inuit students and youth as evidenced during the proposals of the University of the Arctic. During the Inuit Circumpolar Conference General Assembly of 1998, Resolution 98-03 was created, directly aimed at the creation of the UArctic. Resolution 98-03 outlines, "Therefore Be It Resolved That the Inuit Circumpolar Conference supports the proposed University of the Arctic and request the working group of the Circumpolar Universities Association to: Expand its consultation program to include the Inuit Circumpolar Youth Council and colleges in the circumpolar region."⁷ As part of supporting UArctic, Inuit stated they wished to include Inuit input and student themselves into UArctic. Resolution 98-03 continues by addressing post-secondary program location, "Whereas Inuit wish to enjoy improved access to high quality post-secondary education in their homelands; and Whereas currently many Inuit have to leave the circumpolar region in order to enroll in undergraduate and graduate degree programmes."

Here, the ICC elaborates on the need for universities for Inuit, setting one documented foundation for Canada's Inuit homeland university today. UArctic, backed by the Arctic Council, counted on circumpolar support from Arctic Council member states. It might appear the Inuit Circumpolar Council envisioned UArctic might be a stepping-stone toward a future Inuit University. Perhaps Inuit leaders chose to embrace the more circumpolar UArctic, rather than reintroducing an Inuit-focused institution into the arena in 1998. At the time, in 1998, Canadian Inuit in particular remained at work settling some of the land claims agreements that led to the four Canadian Inuit regions known today.

Circumpolar support for the University of the Arctic resulted in the creation of a multi-institutional "university without walls" in 2001, now an Observer of the Arctic Council. Today, University of the Arctic has grown to include dozens of Members who form a "cooperative network of universities, colleges, research institutes."⁸ UArctic fosters a broad circumpolar identity through student exchange programs and creating an environment for faculty to work at multiple Member institutions integrating a focus on the Arctic region. There are a handful of post-secondary programs, such as Nunavut Arctic College in the University of the Arctic Membership, directly serving students within Inuit homeland and the Canadian Arctic.⁹ Nonetheless, many Canadian Inuit still are caught in the same circumstances outlined by the ICC in 1998 by having to leave their homeland region to pursue their studies. The initiative set by the ICC in support for the University of the Arctic creates a precursor for UArctic to have a natural partnership with an Inuit University.

II. Arctic Council Standing on Education

While Permanent Participants such as the ICC has a clear connection to having an interest in an Inuit University, the circumpolar Arctic Council has brought forth its own language on education that has implications for an Inuit University project. Declarations by the Arctic Council link indigenous communities and education and these statements have become narrower and focused over time. In the Arctic Council's foundational Ottawa Declaration of 1996, several clauses encompassed indigenous youth and education programs: "Recognizing the traditional knowledge of the indigenous people of the Arctic and their communities and taking note of its importance and that of Arctic science and research to the collective understanding of the circumpolar Arctic."¹⁰ Following, the Declaration affirms, "The Arctic Council is established as a high level forum to...encourage education and promote interest in Arctic-related issues."¹¹ The Ottawa Declaration only begins to connect the Arctic Council to education concerns while the Iqaluit Declaration of the year 2015 has language specifically for youth and issues that implicate education, such as mental wellness. Overall, the clauses used in the Ottawa Declaration indicate recognition of education issues, yet do not fully outline or explicate actionable initiatives.

The Arctic Council elaborates more specifically on matters of education in the 2015 Iqaluit Declaration from the Ninth Ministerial Meeting of the Arctic Council. The Iqaluit Declaration ministers: "Welcome efforts to work with the youth of the Arctic states and request that this work continue and be strengthened, and recognize the need to focus on indigenous youth concerning the development and preservation of their culture, language, mental and physical health, and leadership qualities."¹² This clause alludes to the fact that Arctic Council has overseen youth programs that it is willing to continue and specifies a willingness to commit to new research and student projects. The Arctic Council's Declarations illustrate the Arctic Council ministerial meetings are centered on highlighting efforts, rather than direct implementation, which fall under its Working Groups and Observers like UArctic.

An Inuit University, as a site for academic and personal growth, is precisely the type of body able to meet some of the objectives in sustainable community development in the Canadian Arctic, given the objectives the Arctic Council has announced. Today, the natural site for Inuit University research or further work is within the Sustainable Development Working Group (SDWG) of the Arctic Council. Released in 2015, the second installment of the *Arctic Human Development Report (AHDR): Regional Processes and Global Linkages* was initially presented to

the Sustainable Development Working Group for project endorsement in the fall of 2011. In its final version, the AHDR-II report states, "Now, across the North and elsewhere...Indigenous peoples are working to create Indigenous controlled education systems based not on the Western form of schooling imposed on them for the past century (or longer) but rather based on Indigenous epistemologies and worldviews."¹³ In the AHDR-II assessment lies the parallel argument for an Inuit University due to the need for Inuit-focused curriculum and target student populations. These ideas are embedded in the Inuit Nunangat University Workshop Report, to be discussed throughout this chapter, and which summarizes outlines of a framework for an Inuit University.

Situating an Inuit University Within the Arctic Council

With multiple Working Groups and programs, the most appropriate Arctic Council entity to review work on an Inuit University falls within the Sustainable Development Working Group (SDWG). In its Current Project materials, the SDWG delineates it is under ongoing consideration for "potential projects...including ongoing work on assessing, monitoring and promoting Arctic Indigenous Languages"¹⁴ at set forth for the period of 2015-2017 (U.S.A. Chairmanship). The SDWG "carries out its mandate based on specific projects approved by Ministers"¹⁵ and its smaller Expert Groups have their own procedural guidelines. This means that if presented with compelling evidence, such as from a feasibility study, the SDWG can become a public platform and research site on creating an Inuit University. More concretely, the oversight of the Social, Economic, and Cultural Expert Group falls within the larger SDWG. This Expert Group under the guidance of the SDWG "will undertake priority based project development; review and recommend research proposals for SDWG endorsement and approval by SAOs and AC Ministers."¹⁶ Ultimately, this makes the Social, Economic, and Cultural Expert Group a likely mediator to coordinate greater visibility for an Inuit University and to assess research and project interest. The promising work being done at the local level for an Inuit University make it an ideal time for the institution to obtain a greater voice within the Sustainable Development Working Group, which in turn could boost Arctic Council discussion on the university.

A prominent aspect of several SDWG projects is that they are driven by indigenous communities through Permanent Participants. One SDWG project on indigenous languages, coincidentally led by the Inuit Circumpolar Conference, is another likely candidate for integrating research on an Inuit University. The outlook for the ICC-led project, "Assessing, Monitoring and Promoting Arctic Indigenous Languages," within the SDWG is to continue to build on research results of its first

phase for 2015-2017.¹⁷ With potential expansion of the language assessment program, this is an avenue to integrating how an Inuit University is centered on promoting indigenous languages as one of its principal functions. As the ICC is already active in the SDWG, it would not be surprising if it once again renewed its historical interests in an Inuit University today. While the SDWG maintains openness toward receiving new project proposals, the Social, Economic, And Cultural Expert Group and SDWG projects form linkages and possible alliances for an Inuit University.

III. Support and Initiatives for an Inuit University

National Strategy on Inuit Education of 2011

The gateways to integrate an Inuit University in the Arctic Council are only part of a larger story in Canadian-based initiatives for an Inuit University. Dedicated leaders and organization have already forged ahead in taking Inuit University plans to new levels. In 2009, former Governor General, Michaëlle Jean, publically announced her support for the creation of an Inuit University. Jean noted she was inspired by the Norwegian University of Tromso and its work toward promoting a Northern-based education institution.¹⁸ What truly brought a concrete vision to the support from the Governor General was the National Strategy on Inuit Education in 2011.

At its core, the National Strategy on Inuit Education is an education policy report and blueprint, which includes recommendations on further infusing ancestral knowledge, Inuit values, language, and community-level practices into Inuit Education. Mary Simon, then-President of Inuit Tapiriit Kanatami (ITK), a Canada-based Inuit advocacy organization, spearheaded this initiative. The National Strategy on Inuit Education included collaboration with government and Inuit organizations.¹⁹ Covering the spectrum of education from early learning to post-secondary programs, one of its core recommendations is creating a University within Inuit Nunangat.²⁰ Specifically, "The National Committee on Inuit Education recommends a national initiative... [to] establish a northern university based on Inuit culture and language in Inuit Nunangat."²¹ This recommendation underscores the collective effort that is required, across Canada and Inuit land claims regions to make a University into reality. One marker of the recommendation is specifying for the Inuit University to be within the four Inuit land claims regions. Recent information reveals the most likely site for an Inuit University as being with the territory of Nunavut and specifically in Iqaluit, given the outlook of the Inuit Nunangat University Workshop Report.²² Thus, the vision of the National Strategy on Inuit Education was at the forefront in reaffirming the

probable location for the university that was not possible in 1977 when Canada's land claims were not all settled.

The National Strategy on Inuit Education describes an Inuit University as not only a validating institution, but also a “home base,” “intellectual home for Inuit scholarship,” and integrative of an “Inuit worldview” all while placing it within the Arctic.²³ One might interpret the Strategy's description of an Inuit University as being similar to creating a mirror, whereby students are able to see themselves truly reflected in curriculum, research, the land, and amongst Inuit faculty, peers and staff. While the National Strategy on Inuit Education did not fully lay out the path for how an Inuit University could come into existence, it is a trailblazer in situating post-secondary opportunity within the context of K-12 and its importance for Inuit. One example of the relevance of the National Strategy is evident in the Inuit Nunangat University Workshop Report of 2015; the recent Report stated how government legislation terminology, necessary to create a public university, could draw from the existing National Strategy on Inuit Education.²⁴

Private Funding

Meanwhile companies seem to have taken these initiatives into consideration for sponsorship. Agnico Eagle, a mining company with operations in Nunavut, announced in 2014 that it is willing to provide donations of \$5 million to Nunavut for an Inuit University.²⁵ While the university would require much more than \$5 million to get started, a single donation of that size is a valuable start for coming out even prior to implementation commitments. -One estimate by Sarah Rogers from *Nunatsiaq Online* projects a yearly budget of \$30 million at minimum for the university.²⁶ Nonetheless, Agnico Eagle's offer demonstrates a precedent of the type of private funding to be acquired in the formation of an Inuit University.

The Inuit Nunangat University Workshop Report

It seems the long-held calls for an Inuit University and timing since the 2011 National Strategy on Inuit Education have led up to some of the most promising steps in 2015 for an Inuit University. The Inuit Nunangat University Workshop Report was produced as part of a meeting between educators, scholars, government officials, and Inuit organization representatives to continue to build on previous work and formulate a vision of what is needed to organize a university. Items covered include suggesting ideas for legislation, governance structure, location, and the role of Inuit languages. ²⁷ Workshop contributors drew a list of possible coursework and research

programs comprised of Inuit Studies, Fine Arts, Linguistics, Political Science, and Education, among others.²⁸ This Report is a key building block that begins to articulate the key partnerships and distinct nature and voice for an Inuit University.

Feasibility Study

Building off the Inuit Nunangat University Workshop Report is a feasibility study for the University announced in late 2015 by the Government of Nunavut. In October 2015, Inuit newspaper, *Nunatsiaq Online*, reported that the Government of Nunavut is looking forward to the results of a feasibility study from KPMG LLP, who was contracted to carry out a feasibility study for a university in Nunavut territory. *Nunatsiaq Online*, underscored the feasibility study will look at expenses, potential funding sources, mandate and legislative requirements, and location.²⁹ Given the implications for government legislation that is needed to create a university, it is meaningful that the territorial Government itself has requested the feasibility study. Further, it is timely that this study is being conducted a few months after the Inuit Nunangat University Workshop Report, perhaps indicative of the Report's utility, visibility, and promise.

Timeline: UArctic vs. Inuit University

One can look forward to future steps for an Inuit University by comparing it to the timeline of the University of the Arctic. As a reference, the University of the Arctic emerged from 1) a feasibility study in 1997 with report submission a year later. After 2) an Interim Council and ensuing meetings in 1998. Then 3) the creation of a coordination office, later the UArctic International Secretariat, in the year 1999. Next 4) followed the release of an Integrated Plan, implementation program, and the launch of UArctic in the from 2000 to 2001. Point 5) included admission as an Arctic Council Observer in 2002.³⁰ David Stone, who was directly involved in the creation of UArctic describes a chronological progression, including UArctic's transition from task force to working group, to the setup of its interim secretariat.³¹ Along this history, UArctic had important milestones in enrolling students and devising a student exchange program. Using the UArctic as a model, it is apparent an Inuit University is on the cusp of its creation curve. Of course, key distinctions that set an Inuit University apart from the UArctic is time necessary to enact territorial legislation and build physical infrastructure in the Canadian Arctic. In contrast, multiple University of the Arctic member institutions were already built and running when the UArctic network was created. Nonetheless, with an Inuit University at step one, it is reasonable to expect that it may

take a few years to set up necessary mechanisms. As UArctic was able to join the Arctic Council, this prompts a possibility for an Inuit University to eventually become an Observer of its own.

IV. Canada's Relationship to Developing Inuit Education

The Canadian federal government should have an interest in having a relationship with an Inuit University because it aligns with its own Arctic objectives and fits within the process toward greater reconciliation with indigenous peoples. In the year 2000, through Canada's "Northern Dimension of Canada's Arctic Policy," Canada was forthright in its endorsement of the University of the Arctic and the significance of indigenous education in the workings of the Arctic Council. Canada delineated initiatives for consideration such as "increasing the number of northern youth internships, youth employment and student exchanges, and education options through the University of the Arctic and affiliated colleges within the circumpolar region."³² Because Canada does not have a University in the Arctic, backing an Inuit University would enable Canada to better meet its objectives. In a later section, this chapter will establish the partnership prospects between the University of the Arctic and an Inuit University, which reinforces the Canadian statement of utilizing the University of the Arctic system. An Inuit University would graduate youth who have the skills capacity to enter into careers within Inuit homeland and contribute to the broader development of the territory, and by extension the Canadian state.

Canadian Reconciliation through Education Investment

Beyond previous statements by the Canadian government, there is the profound issue of reconciliation that has implications for Canadian support for an Inuit University. Education is vital component of addressing much of the hurt and loss from the residential school era on indigenous and Inuit communities, giving an Inuit homeland university the potential to contribute to broader reconciliation. According to the Legacy of Hope Foundation, residential schools ran from the 1870s to the 1990s and they were "an attempt to assimilate Indigenous Canadians into the dominant culture. These children suffered abuses of the mind, body, emotions, and spirit that has had a deep and lasting impact on the Survivors, their families, and their communities."³³ In many cases, the experiences of grandparents and parents have led to intergenerational trauma that is passed down to youth who are now students. As part of the Truth and Reconciliation Commission, one of the 94 calls to action stated, "We call upon the federal government to provide adequate funding to end the backlog of First Nations students seeking a post-secondary

education."³⁴ While federal funding is important, the inclusion of parents and community members in an Inuit University would be a societal feature of the reconciliation process.

An Inuit University in Canadian Inuit homeland would have great potential for Inuit families and community members living in the Canadian Arctic to actually come into contact and take part in the implementation programming. An Inuit University in the Canadian South would simply not suffice for many families to join and visit the University due to logistical and practical challenges. A consensus from Task Force meetings in Ottawa, Canada was that the cost to fly students and individuals to Southern programs is prohibitive with flight prices up to a few thousand dollars each.³⁵ The steady affirmations for a university built in the Canadian Arctic, such as in Iqaluit, are accompanied with the benefit of a greater likelihood of being able to encourage regional parent engagement.

Mary Simon outlines the relationship between Canadian reconciliation efforts and education, arguing the National Strategy on Inuit Education report (and by extension, its' recommendation on building an Inuit University) is a way for Inuit to reassert control over education programs. Simon addresses, "understanding and respecting our need to restore the central role of our Inuit language and culture in education would be a true act of reconciliation...we could use the Prime Minister's Apology [for the residential school system] as a catalyst for taking back and owning our own education system. "³⁶ Part of addressing the damage of residential schools is Canadian re-investment in education, this time under the oversight of Inuit communities from the start. Thierry Rodon, scholar at Université Laval, explains how Inuit students are subject to different education finance structures based on region in Inuit Nunangat. Rodon argues, "the federal government has a clear fiduciary responsibility to invest more in education, and a Northern University would be a good starting point."³⁷ Whether by following up on Canadian Arctic Policy, funding, or showing a commitment to reconciliation, the federal government of Canada has a role in the development of an Inuit University. Within the framework of the Arctic Council, Canada as a member state could demonstrate an example to follow within the circumpolar region

V. Existing Infrastructure for an Inuit University

Over the years, there has been an accumulation of programs that serve as possible partners for an Inuit University, such as Arctic-focused student leadership development programs, the University of the Arctic, and Inuit-focused programs such as Nunavut Sivuniksavut. In some cases,

these potential partners form linkages to the Arctic Council while in others they promote Inuit culture and language as building blocks for an Inuit University.

Inuit University Partnerships - Promoting Student Capacity

Beyond thinking of parents, Inuit organizations, and governments as partners in creating an Inuit University, there are existing leadership development programs Inuit youth could access through an Inuit University. These programs include the Model Arctic Council,³⁸ UArctic Student Ambassadors,³⁹ and variations of the U.S. Chairmanship's Arctic Youth Ambassadors program.⁴⁰ In order to achieve some of the leadership development stressed in the Iqaluit Declaration from 2015, Inuit students need to have greater opportunities to channel post-secondary studies into active roles in Arctic Council. This means increasing indigenous youth participation in programs designed to include student voices in Arctic policy and decision-making, such as through the three aforementioned student programs. A future Inuit University can form a meeting point for these programs as well as allow opportunities for hosting events and conferences in the Canadian Arctic. Further, student representatives for an Inuit University could readily take part in existing circumpolar networks. Student leadership capacity building strengthens indigenous Permanent Participants and Member States because students move into careers with possible affiliations in the Arctic-Council.

As programs that encourage youth leadership development, the Model Arctic Council, UArctic Student Ambassadors, and U.S. Chairmanship Arctic Youth Ambassadors programs ask students to be actively engaged in their post-secondary (or high school) educations. First, the Model Arctic Council allows students to learn about Arctic Council proceedings in a way that resembles a popular U.S. university program, Model United Nations. Model Arctic Council fosters dialogue on issues pertinent to the Arctic and includes students who take on "roles" for member states, Observers, and Permanent Participants. The Model Arctic Council program is a prime space to integrate indigenous student perspectives that parallels the work indigenous Permanent Participants carry out in the actual Arctic Council. Second, the UArctic Ambassadors Program is a leadership opportunity for post-secondary students to inform and represent the University of the Arctic system and individual institutions. As stated by UArctic, "As students...who share in the value and promise that our collective northern voices have in a globalized world, UArctic Student Ambassadors provide invaluable insight by advocating for the opportunities that the UArctic network offers."⁴¹ Third, the U.S.A. Chairmanship Arctic Youth Ambassadors program spurs high school and university students to take on a leadership role for the duration of its 2015-

2017 Chair. According to the *Arctic Sounder*, twenty students selected from Alaska serve as Arctic Youth Ambassadors and they engage in establishing personal priorities and talking points as a fundamental component of the program.⁴² These types of leadership development programs are all opportunities for Inuit student involvement geared toward Arctic issues. While Inuit students are already taking part in these programs in small numbers, an Inuit University would strengthen this presence. As a possible member of UArctic, an Inuit University would have access toward nominating and highlighting their students amongst UArctic Members and in future Chairmanship programs.

University of the Arctic as a Partner

Beyond student leadership development, an Inuit University can develop from the tremendous University of the Arctic network. In Davis Stone's book, *The Changing Arctic Environment*, Stone articulates his concern over the absence of a university in the Canadian Arctic. In discussing UArctic, he concedes, "my only disappointment is that it is not clear that the University of the Arctic has been able to significantly meet the needs of Arctic indigenous peoples in Canada. Perhaps this was too much to expect."⁴³ Stone continues his analysis by referencing the National Strategy on Inuit Education from 2011 and the recommendation for an Inuit University: "If an institution of this nature could be established, its dimensions could be extended through participation in the circumpolar University of the Arctic."⁴⁴ Drawing from Stone's ideas, the University of the Arctic and an Inuit University are optimal partners as UArctic is well-established and has a presence in Arctic Council meetings that could enhance the visibility of an Inuit University from the view of the Council.

UArctic can serve as recruitment and information site for an Inuit University committee to request circumpolar input from institutions dedicated toward indigenous student inclusion, such as the Sami University College ⁴⁵ and Ilisimatusarfik, Greenland's university, which began as the Inuit Institute in 1983. After the results of the feasibility study, there are anticipated working group and committee meetings that will have to be set in motion. In these planning phases, experienced educators from the UArctic system will be a prime recruiting pool to lend ideas and best practices from their own university programs. UArctic members, in Canada and beyond, have experiences assembling funding, building infrastructure in the Canadian Arctic, developing curriculum, and recruiting educators. All of these are questions that will need to be addressed in the creation of an Inuit University. In return, UArctic would benefit from having its interested members collaborating on a program of joint interest.

Building Blocks from the Nunavut Sivuniksavut Program

The widely successful Nunavut Sivuniksavut (N.S.) is a model for developing an Inuit culture and language curriculum, and it comprises a key student recruitment base for an Inuit University. Emerging in 1985 from the Nunavut Land Claims Agreement negotiations, Nunavut Sivuniksavut is an eight-month program that allows youth from Nunavut to learn about Inuit culture, history, and language. Nunavut Sivuniksavut is even serving as a model for the projected "sibling" program in neighboring Nunavik.⁴⁶ The program partners with Algonquin College and delivers two certificate programs: Inuit Studies and Advanced Inuit Studies.⁴⁷ With a successful history, the N.S. model is a possible design option for creating the vision for Inuit University curriculum. The N.S. program curriculum model was designed carefully over time. A sample of this is the diagram titled, "Unifying the Inuit Story," which delineates Inuit history over time and on the degree of autonomy Inuit have held over their own communities. In this design, a line starts at a plateau of Pre-Contact, then descends during the Government Era. By the late 1960s, the line begins to rise again towards the era of the Land Claims Agreements. Overall, this model demonstrates a coalesced sample of Inuit history, applicable across indigenous Arctic communities.⁴⁸ This model is part of existing educational infrastructure that fuels design curriculum in an Inuit University.

An Inuit University would have the opportunity to build on the N.S. model through the experiences of instructors, student identity building, and hopes in redefining Inuit education on Arctic land. One parent highlights the impact that Nunavut Sivuniksavut had on their child as an indicator of the need for programs centered on Inuit communities. Parent Roposie Alivaktuk stated, "Our children are not learning anything about Nunavut Tungavik's mandates and organizations like Kakivak and Inuit public governments that are run by Inuit. [These things] are not being learned by Grade 12 graduation."⁴⁹ In a meeting with Morley Hanson, a long-time coordinator at Nunavut Sivuniksavut, he explains how during the eight-month program, students have shifting worldviews in learning their own history and the legacy of Inuit. This story is empowering for many students, as there is nowhere else where they could acquire this knowledge.⁵⁰ An Inuit University could replicate and build from the work of programs such as Nunavut Sivuniksavut, by filling students' self-discovery of Inuit history, which may be absent or less accessible in earlier formal education.

In a critical appraisal of Nunavut Sivuniksavut in the *Canadian Journal of Native Education* from 2000, Cathy Richardson and Natasha Blanchet-Cohen assessed "That students are not necessarily continuing on past the NS program is indicative of the educational challenges that

exist for Aboriginal peoples. Transition programs may be an essential part of the solution, but alone they are not sufficient."⁵¹ Richardson and Blanchet-Cohen's argument reinforce the idea that Nunavut Sivuniksavut, which lasts eight months for most students, augments but does not replace a full university experience. This could be enhanced through a multi-year Inuit University. For Nunavut Sivuniksavut students, who mostly come from the Nunavut territory, an Inuit University would allow them to complete their undergraduate careers closer to home. On a broader scale, programs such as Nunavut Sivuniksavut and the emerging "sibling" program in Nunavik, create a potential student transfer pool for an Inuit University. Thus, as part of the development of an Inuit University, existing and emerging Southern Canadian programs are instrumental as partners in Inuit post-secondary education.

A former Nunavut Sivuniksavut student illuminates the divergence between access to English materials in comparison to Inuktitut, demonstrating the gap that can exist in a student's studies. Former student Amilia shares "since I use the Internet a lot, where there is very limited Inuktitut, I was practicing English much more than Inuktitut. Songs, schools, stores, just things in the everyday life barred me from deepening my Inuktitut."⁵² Students would have a renewed opportunity to learn aspects of history through an Inuit University and strength their connection to Inuit, by taking Inuit language courses. Language is a central core of an Inuit University, as emphasized in the Inuit Nunangat University Workshop Report of 2015. The Workshop report states, "determining how best to incorporate Inuit knowledge and language(s) into the university will be an ongoing learning process."⁵³ Recognizing that students have differing levels of mastery and access to indigenous languages underscores the impact Inuit University language courses can have on a student, especially if taken for the duration of an undergraduate career. While an Inuit University can form partnerships through existing infrastructure like the N.S. program, there will be key differences that will distinguish an Inuit University.

VI. Outlining a Framework for an Inuit University

Student Voices and Urban Inuit

Student and community insight is instructive in conceptualizing the framework of an Inuit University in Inuit homeland. *Nunatsiaq Online* highlighted key ideas from student Maatalii Okalik, president of the National Inuit Youth Council (NIYC) who attended the National Inuit Youth Summit in August 2015. Okalik shared how she is "hoping to expand the current mandate of the NIYC so it can also represent the many Inuit youth living in Ottawa, Montreal... -those raised in

cities..."⁵⁴ As a Inuk raised in Ottawa, Okalik forms part of Inuit raised in Canada's southern regions. Through an Inuit University, students like Okalik would be able to access post-secondary education in the Arctic that can connect them to a larger Inuit community and identity. One common measurement is that about one fourth of Inuit live outside of the land claims regions and the number of Inuit in southern cities is growing.⁵⁵ An Inuit University would be a secure arrival site in the Arctic for an urban or Southern Canadian Inuk student who wishes to take their studies to Inuit homeland. Inuit students outside the homeland who connect to and seek out their post-secondary studies rooted in the Arctic can only strengthen the Inuit community. Thus, transition and transfer programs for Inuit students in the South would effectively serve as another pipeline of student recruitment to a future Inuit University.

Inuit Worldview

What makes the prospects of an Inuit University unique is the opportunity to articulate Inuit values and worldviews for incorporation into a University mission and vision statement. The Inuit Nunangat University Workshop Report points to how an Inuit University would "offer an opportunity to move beyond the so-called 'cultural inclusion model'...incorporated in the dominant Euro-centric framework."⁵⁶ Rather, the Report suggests, Inuit knowledge and language can be brought to the forefront in a University, in essence redefining the post-secondary status quo. The multi-lingual magazine, *Naniiliqpita*, outlines an example of Inuit values from Nunavut Tunngavik Inc.'s president, Cathy Towtongie. Towtongie affirms, "The term *inuguiniq* is the process of taking steps to mature a person into an adult human being following Inuit steps and laws. What was this process? It was not the process of what was introduced by schools or the grade system."⁵⁷ The ideas embedded into *inuguiniq* combine Inuit language and a worldview that does not necessarily transfer neatly into Western/European education curriculum.

Other components of an Inuit University could ensure the inclusion of Elders into classes. In a meeting with Morley Hanson, coordinator of Nunavut Sivuniksavut, he describes how throughout the program, many students are reinvigorated in wanting to spend time and learn from Elders.⁵⁸ As Nunavut Sivuniksavut allows student to learn about Inuit history, language, and land claim agreements, this increased exposure likely contributes to a student's attached value in having time with Elders when a student returns to his or her home region. The Inuit Nunangat University Workshop Report further supports the inclusion of Inuit Elders, where participants emphasized, "a prominent role for Inuit Elders and knowledge holders, as well as Inuit languages be protected

and enshrined in the governing documents for the university."⁵⁹ This brings forth the issue of the availability of community Elders in post-secondary programs, a feat that would be actionable in the Canadian Arctic where Elders may already reside. These brief examples are indicators of how Inuit perspectives can be incorporated into the mission statement, vision, and curriculum models for an Inuit University. Highlighting some of the unique aspects of an Inuit University forms the ultimate parallel to the Arctic Human Development Report-II, which recognized the importance of indigenous-controlled education systems.

VII. Policy Recommendation & Concluding Remarks

Policy Recommendations

1. The Social, Economic, and Cultural (SEC) Expert Group, as part of the Sustainable Development Working Group of the Arctic Council, has the opportunity to highlight the results of the Nunavut Government's mandated feasibility study on an Inuit University in 2016. Representatives of the Sustainable Development Working Group should explore project development and research on an Inuit University as it aligns with some of the goals in its ongoing projects on assessing indigenous languages and building capacity within communities.
2. Student representatives and advocates for an Inuit University should be invited to Arctic Council meetings and share in existing leadership development programs as partners. A stronger Inuit student presence in circumpolar meetings should be encouraged through expansion of Arctic Council-associated and University of the Arctic leadership development programs.
3. The University of the Arctic should support an Inuit University by lending planning expertise through its Member universities centered on indigenous student inclusion. University of the Arctic members are already being referenced as prospective partners for an Inuit University, making it feasible for UArctic to update Arctic Council meetings regarding these collaborations.

Concluding Remarks

In the long run, an Inuit University would help to form part of Inuit Nunangat's economic development and the personal, intellectual growth of hundreds, if not thousands, of students. For now, Inuk student Maatalii Okalik stands by her belief that keeping more Inuit in the Canadian Arctic involves setting up a university there. She affirms for students in Canada's

territories, "Not only would more Inuit go to university...it's likely more Inuit would be motivated to graduate from high school since the idea of university would no longer seem so daunting and remote."⁶⁰ Stemming out of a push to improve education for Inuit is the prospect of an Inuit University that holds historical significance. After completing post-secondary studies, students may find they are faced with employment prospects that may already be in demand across Inuit Nunangat. In 2006, Thomas Berger described the need in Nunavut for "a generation of executives and managers, computer software designers, architects, audiologists, nurses, doctors, lawyers, accountants."⁶¹ In order to make a University a reality, Inuit organizations and supporters, like the ICC, will have to come together. Canada, at the federal level, can support an Inuit University based on a commitment to reconciliation and realization of its Arctic Policy, serving as a role model in the circumpolar region.

NOTES

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PART III.

THE DEVELOPING ECONOMIC & LEGAL STRUCTURE OF THE ARCTIC

The Arctic is changing at a remarkable pace and as a region, it has long occupied a place in our collective imagination. The Arctic's unique history, climate, and geography call for a specialized approach when formulating international agreements that establish Arctic maritime code. There are five main areas that must be addressed: Territorial and EEZ boundaries, rights and responsibilities of Arctic Littoral Nations, maritime environmental regulation, maritime code and standards, and International fish stock management.

The potential opening of the Northwest Passage in the coming decades could lead to new areas of economic development. Increased vessel traffic will require support facilities as well as a large amount of externalities that can provide unique positions for Inuit communities. Inclusion of Inuit interests and knowledge has the ability to benefit all parties involved. Not only could an increase in maritime traffic provide cheaper consumer goods to isolated areas by lowering transportation costs, employment in support of these services could provide a private source of income outside of government transfers.

However, current conditions do not allow for extensive maritime transportation through the area. Despite this, the town of Iqaluit wants to build a deep-water port in order to service the largest container vessels. This project will have limited benefits across the region. Currently, Inuit communities in Nunavut are facing housing issues, lack of access to infrastructure, and policies that do not foster long-term, sustainable growth. As a result of these issues, communities continue to rely on the territorial and federal government for support. In order to encourage more sustainable development, new programs will need to target specific areas to make Nunavut a self-sufficient economic region.

CHAPTER 7

TWENTY YEARS OF ECONOMIC DEVELOPMENT POLICIES IN THE FAR NORTH

By Jordan Habenicht

Abstract

Economic development has been one of the main goals of the Arctic Council since its inception. The Iqaluit Declaration, as well as the most recent Chairmanships of the United States and Canada, have also listed economic development as one of the primary goals. However, tangible goals have not been established and current methods of development, especially in the Far North, strategies rely on policies of extraction, as seen in post-colonial Africa under the Washington Consensus, which do not necessarily promote viable economic development in Inuit communities. Current methods of measurement and data show large increases in the Gross Domestic Product of the economy of Nunavut. However, the communities themselves have not seen many improvements in their quality of life. Different methods of measuring development can be used to gain a better understanding of the actual economic conditions in the communities as well as allowing for improvements in programs aimed at fostering growth. Current plans focus on the development of industries, emphasizing resource extraction which, as past experiences in Africa have shown, do not foster sustainable economic growth. New policies will need to be developed in cooperation with Inuit leaders in order to address the needs of the communities and guide development towards inclusion rather than extraction.

I. Introduction

The potential opening of the Northwest Passage in the coming decades could lead to new areas of economic development. Increased vessel traffic will require support facilities as well as a large amount of externalities that can provide unique positions for Inuit communities. Inclusion of Inuit interests and knowledge has the ability to benefit all parties involved. Not only could an increase in maritime traffic provide cheaper consumer goods to isolated areas by lowering transportation costs, employment in support of these services could provide a private source of income outside of government transfers.

However, current conditions do not allow for extensive maritime transportation through the area. Despite this, the town of Iqaluit wants to build a deep-water port in order to service the largest container vessels. Yet this project will have limited benefits across the region. Currently, Inuit communities in Nunavut are facing housing issues, lack of access to infrastructure, and policies that do not foster long-term, sustainable growth. As a result of these issues, communities continue to rely on the territorial and federal government for support. In order to encourage more

sustainable development, new programs will need to target specific areas to make Nunavut a self-sufficient economic region.

II. Background

Economic development has been a permanent goal of humanity since we settled down into villages. Even today, the most economically powerful nations still seek new technology and knowledge to promote further economic growth. The Inuit communities of the Northwest Territories were no exception to this and sought to grow. However, this left them with little representation to their specific need. This led to the creation of the Nunavut Land Claims Agreement Act in 1993. Yet it was not until April 1, 1999 that Nunavut became its own territory within Canada. The land claims agreement not only created a separate territory comprised of a majority Inuit population, but also gave them the means of focused economic development for their communities.

It should have come as no surprise when the Arctic Council was founded in 1996 and began to work with Inuit leaders in an effort to foster economic development of the north as one of the key goals. The *Ottawa Declaration*, which established the Arctic Council, states "Affirming our commitment to sustainable development in the Arctic Region, including economic and social development"¹. This became a common trend in each subsequent declaration from the Council. Economic development should continue to be one of the key goals, but Inuit inclusion into global markets will be necessary and can be beneficial for all parties.

Then in May of 2013, during the Ministerial Meeting in Kiruna, Sweden, the Arctic Council stated in their *Vision for the Arctic* "We will continue to work cooperatively to support the development of sustainable Arctic economies to build self-sufficient, vibrant and healthy Arctic communities for present and future generations"². This was an important moment for the Arctic Council as the Chairmanship returned to the Canadians and initiated the second round of circulation. The previous declarations from the permanent members showed their commitments towards achieving this goal. Over the course of those first sixteen years, various working groups and task forces were established to address the challenges that would need to be overcome in order to achieve economic development.

Canada wasted no time in pressing these goals further as it announced its theme of its chairmanship as "Development for the People of the North."³ During this two year period, Canada worked hard to uphold this theme through the founding of the Arctic Economic Council in 2014.

This was further supported by coordinating with various working groups to develop reports on issues that can come from development such as oil spills, environmental hazards, and safety issues for the Arctic. The Arctic Council now had a closer relationship with businesses through the Economic Council, but also the information that can help companies better understand the challenges that the Arctic presents. The chairmanship passed to the United States in 2015 and, as expected, economic development has been listed as one of the key goals.

Currently, the Arctic Council is coming up on its 20th anniversary since its creation. While the declarations may seem rather vague, and don't set any actual development goals, it does not mean that there is a lack of progress. The Arctic presents a host of challenges outside of the standard environmental concerns that already hinder growth. One such issue is that Arctic communities do not fall under a unified nation-state. In addition to that, even communities in the same nation-state do not necessarily share the same obstacles to growth. On the other hand, another large issue associated with a lack of economic development in Arctic communities is that they are part of a nation-state. Development is normally viewed as promoting sustainable growth for a nation and improving the quality of life for the majority of the population. However, even nations that are considered developed can still house communities that fall behind the rest of the country. One such example is the Nunavut territory of Canada. While it falls within the borders of Canada and is subject to federal legislation, it has not achieved the same levels of economic development as their southern neighbors.

Determining levels of economic development can be a challenge. Governments and scholars have been working to build effective development programs and criteria since the end of formal colonialism. However, results have been mixed with some countries coming out ahead, such as China and South Korea, while others have not seen much change, such as Zimbabwe. This is not to say that western development ideals are misguided, nor is lack of progress necessarily a sign of failure. The issues that development programs have encountered could stem from the ways we define development and success.

Gross Domestic Product (GDP) is one of the standard models used to quantify development. However, using GDP as a unit of measurement has been criticized by many an economist. As Jeroen Van den Bergh points out "a positive correlation between GDP growth in certain periods or regions with perceived progress should not be confused with the idea that GDP (growth) is a good measure of social welfare (progress) in general."⁴ This is not a new concern that has been raised about using GDP as a measurement of growth. Yet government statistics all point to GDP

gains in Nunavut as signs that the communities have vastly improved. The issue that arises from using these metrics is the reliance on non-renewable resources and stagnated secondary and tertiary sectors. In order to establish Nunavut as a self-sufficient territory, new methods of development will need to be utilized in order to ensure a secure future for the communities.

III. Housing

One of the pressing issues that face communities in Nunavut is providing suitable housing. The environment of Nunavut makes this a challenging endeavor in its relative isolation, lack of transportation infrastructure, and climate. These challenges do not slow down the growth of the population in Nunavut nor its need more housing. Overcrowding leads to a reduction of productivity in communities through medical and social issues. Yet the cause of overcrowding partly stems from the reliance on public housing due to the costs of construction in the area. Additionally, a growing population is stretching available resources in construction of new dwellings. In order to promote greater sustainable economic growth, overcoming an insufficient amount of housing will need to be a crucial step.

The climate of Nunavut makes the construction of housing units drastically more challenging than in other areas. Long winters that bring high winds and large amounts of snow and ice accumulation pose an issue for construction and sustainability of housing units. In addition, climate change is leading to the permafrost layers thawing during the summer months. In a recent study on thawing permafrost, researchers found that "Well drained areas produce good quantitative agreement with seasonal ground settlement measurements, [...], but areas susceptible to saturation, surface ponding and flooded vegetation are likely to significantly underestimate the true settlement of the ground."⁵ This presents a number of issues to Nunavut communities. As permafrost melts and the ground sinks, housing and other structures can become damaged from the shifting soils. In communities that rely on airports for delivery of all their consumer goods, damage to airport runways can lead to delays in much needed products. Damages to housing will also be costly to repair or become completely uninhabitable. As such, older houses will need to be retrofitted in preparation for these trends and new construction will require accommodations to account for the thawing. This has the potential to slow construction of new housing as capital is redirected towards repairing and retrofitting older structures.

Environmental concerns are not the only area that present challenges. The cost of construction activities, as well as in other sectors, is drastically higher when compared to other areas of the

world. Nunavut lies above the tree line which forces wood based products to be imported. However, there is limited transportation infrastructure in Nunavut; especially between communities. This forces materials and supplies to be delivered by aircraft, which limits how often materials can arrive and vastly increase the cost of receiving the goods. As a result of this, home ownership rates are minimal and as of 2010 54% of the population in Nunavut lived in public housing with 99% of the public housing population that are Inuit.⁶ In order to provide adequate housing, housing development strategies outside of a wage based economy may be necessary.

However, public housing methods do not seem to be providing the solutions to housing needs. Overcrowding is a significant issue in Nunavut communities and has been known for some time. According to a 2004 report on housing needs in Nunavut, "some 54 percent of the Aboriginal people in Nunavut are living in crowded conditions."⁷ The report also found that around 270-275 new housing units will be needed each year to overcome crowding as well as accounting for population growth. However those numbers do not account for the 130 to 140 new dwellings the report found that will need repair or replacement. Yet in the 2011 Makimaniq Plan, housing was still one of the key areas that needed to be addressed to reduce poverty rates in Nunavut.⁸ While progress has been made between both the federal and territorial government, additional measures will be necessary if housing inadequacies are to be overcome.

IV. Infrastructure

While housing is necessary for survival in northern climates, infrastructure is essential for connecting communities to the outside world. Increasing access to transportation, electric power, water, sewage, and refuse collection are areas that allow for higher productivity, but are much more challenging to establish. Yet in order for sustainable economic growth to develop within communities, access to these services will need to increase. While initial costs will be high in establishing these services, they are essential in increasing productivity and fostering an environment of community development.

One of the main struggles that communities in Nunavut face is access to a centralized power grid. Current methods of power generation in Nunavut rely on individual diesel power generators. As McDonald et al points out, "The territory currently has an installed capacity of 54.3 MW of diesel-generated electricity, and uses over 150 million litres of diesel each year in order to provide the territory with energy."⁹ This poses quite a few problems for community development. Power generation is reliant on the delivery of diesel fuel via maritime transportation. As such, costs of fuel

will be much higher and increases the risk of missed deliveries or large spills. In addition to those risks, the burning of diesel fuel is dirty and is not a sustainable method of power generation. McDonald et al further points out that "the diesel plants in Nunavut are very inefficient, and convert only 35% of the embodied energy in the fuel into electricity."¹⁰ Despite these major concerns, electric power infrastructure is often overlooked in economic development plans for Nunavut. The increasing capabilities of wind, solar, hydro, and tidal power generation could be adapted for communities. Green power generation can be shipped in smaller sections than an entire facility, thereby reducing construction costs. Communities would also gain the added benefit of creating maintenance positions in order to maintain these systems. While a centralized power grid for all of Nunavut is unrealistic, community level power grids could provide a large boost in development as consumers have more disposable income from lower fuel costs. The installation and maintenance of electrical infrastructure will also help in creating new jobs within communities.

Power generation is not only beneficial for consumer use, but also in establishing transportation infrastructure. In 2005, the city of Iqaluit in Nunavut officially established the planning process for a deep-water port. Then, in July of 2015, the Canadian government officially announced that it would supply up to CAN\$64 million to the development of a port.¹¹ While the establishment of a deep-water port in Nunavut would provide a large economic gain to Iqaluit, it does little, if anything, to benefit the outlying communities. Without reliable access to centralized transportation hubs, the economic gains of a large port will be minimal. In its current state, Nunavut relies on air deliveries and summer maritime access in order to supply a bulk of their necessities. As the transportation department of Nunavut points out, "communities in Nunavut are remote, isolated and except for Arctic Bay to Nanisivik have no regional road connections. This makes Nunavut the only provincial/territorial jurisdiction in Canada that does not have roads linking its communities."¹² The lack of access to transportation infrastructure will continue to hinder economic development of Nunavut due to high costs for imported goods and services.

V. Telecommunications

Although housing and infrastructure constitute a large portion of issues that must be overcome to encourage sustainable economic growth, telecommunications access will also be another hurdle that can hinder growth. Access to the internet is arguably becoming a basic human necessity as systems and services increasingly move online. Being removed from the digital world is a severe

disadvantage in the modern global economy and political leaders will need to work with industry experts to bring reliable, cost-effective telecommunications infrastructure to communities.

Even though telecommunication infrastructure development in the north is a challenge, it does not mean that there is a lack of internet access in Nunavut. However, current methods of providing service relies on satellites. As the Nunavut Economic Forum points out "Nunavut relies exclusively on satellites for its Internet communications. Current satellite infrastructure for the North is limited and very expensive."¹³ This creates a significant hindrance towards development. The ability to connect to communication services open up access to vast amounts of knowledge and technological advancements which, when combined with traditional Inuit knowledge of their communities and environment, can help to foster new applications for their communities. Additionally, preserving Inuit culture and spreading information between communities can assist in bringing northern communities together across borders. Investment in these areas, while initially costly, will create long-term gains in economic development.

As Heather Hudson wrote in her book on the subject "Access to information is now considered vital to development, so that the classifications 'information rich' and 'information poor' may mean more than distinctions based on GNP [Gross National Product] or other traditional development indicators."¹⁴ The issue does not lie in competition or access to services, rather it is the cost of the providing service. QINIQ is the only company who is capable of providing service to all of Nunavut, whereas other providers only offer services to some communities. Yet the most basic plan they offer only provides speeds of 1.5 megabytes per second (Mbps) with speed restrictions applied after 10 gigabytes (G) for CAN\$80 per month.¹⁵ In this modern age, a 10 G restriction can be reached in an afternoon depending on how the internet is being used. While some southern corporations are beginning to roll out data caps that slow service once the cap is reached, it has still not become the norm and new competitors are limiting how widespread these caps have spread.

Deficiencies in telecommunication infrastructure is another area in development that Nunavut falls behind. Yet, much like other areas of infrastructure, it is only briefly mentioned in development reports. Internet access provides more than just knowledge, it also offers wage-earning opportunities and a means for Inuit culture and knowledge to be spread, enjoyed, and incorporated into other areas across the world. Providing cost-effective access to telecommunications will be a significant step forward in promoting sustainable economic development.

VI. Natural Resources

One of the challenges of development in the North is that traditional methods are not feasible or extraordinarily challenging. The isolation of the territory coupled with long, harsh winters greatly limits the expansion or introduction of industries. In spite of these challenges though, the Arctic is home to large mineral deposits and vast oil reserves. As part of the Land Claims Agreement, Nunavut is entitled to compensation from the federal government of royalties collected from resource development. However, despite the additional capital from these endeavors, resource extraction will not be a long-term solution to encouraging economic development of the north.

For many years now, the Arctic has become a focal point in global politics due to the vast reserves of natural resources. Various nations have been working extensively on development projects, especially in Russia and Norway. Canada has been working on opening up these areas, especially in Nunavut. The department of Indigenous and Northern Affairs in Canada even states that "Nunavut's resource potential is outstanding."¹⁶ Mining has provided a significant source of income both for the Nunavut government and individuals. However, this is not a sustainable model of development for these communities. Even though mines do provide jobs directly and indirectly, through contracting work, once the mine closes or loses profitability, the benefits disappear. As Warren Bernauer points out "mining can only be a temporary solution to Nunavut's economic problems as the ore bodies will eventually run out."¹⁷ Mining can provide a temporary means of support to Nunavut, but beyond buying time to develop other areas, it provides very few benefits. Yet, as Bernauer further states, "an increase in mining activity remains the federal government's primary answer to Nunavut's economic and social problems and is increasingly being seen by the Inuit Land Claims Corporations as central to Nunavut's future."¹⁸ This creates a significant problem for the future of Nunavut. Policies that focus on resource extraction do not promote sustainable economic growth. This is remarkably similar to development policies that were encouraged in Africa following the end of colonialization.

The ability of extracting and exporting resources was the focus of many development projects in Africa, but this led to economies that were vulnerable to fluctuations in the global market. For example, Kenneth Good shows that in Botswana "diamonds constituted some 45 percent of total GDP, 65 percent of government revenue, and not less than 80 percent of export earnings."¹⁹ Any small fluctuations in profits from resources can drastically impact an economy. Ultimately, this will establish an economy based on resource dependency in Nunavut, similar to nations such as Botswana and other African nations. Any shifts in commodity prices, inflation, exchange rates, and

global demand for resources will have drastic effects on Nunavut's economy. Even in light of all these issues, resource extraction is still the main priority of development efforts. In order to overcome this, the Arctic Council will need to encourage programs that promote the establishment of a diversified economy, rather than relying solely on mining and other resource development projects.

The issue of natural resource reliance is not unique to Nunavut. Throughout the circumpolar economic region, the extraction of natural resources is a significant portion of GDP. As Duhaime and Caron found in their examination of Arctic economies "The primary sector is the second largest sector in the circumpolar Arctic as a whole. Based essentially on the exploitation of natural resources, [...] and contributes 31 per cent to Arctic GDP."²⁰ In addition to a large reliance on natural resources, a further 45 per cent of GDP comes from the tertiary sector of public service.²¹ This means that 76 per cent of the GDP of Nunavut comes from sectors that have limited long-term growth potential. In order for Nunavut to successfully develop and integrate into both the Canadian and global markets, development of new sectors will be essential. The reliance on mining and the Canadian federal government does not allow room for internal growth. As it currently stands under these conditions, the economy of Nunavut is in a fragile place where budget changes or commodity price shifts could have deep and long-lasting effects.

VII. Policy Recommendations & Concluding Remarks

Policy Recommendations

In order for Nunavut to establish a sustainable economy, development outside of natural resources will need to be promoted. Current methods put Nunavut's economy in a precarious position due to a lack of diversity and reliance on non-renewable resources. The Arctic Council should encourage targeting of specific areas for development in subsequent declarations and Chairmanships. In addition, access to infrastructure and better housing will be essential towards building a productive workforce within the territory. The following recommendations should be implemented in order to foster economic development in cooperation with Inuit communities.

1. Establish targeted areas for improvement in order to set tangible development goals.
2. Encourage development of industries outside of natural resources in order to create a diversified economy of the North.
3. Increase access to infrastructure and telecommunication services in communities.

Concluding Remarks

The process of establishing sustainable economic development in Nunavut is going to present countless challenges in the coming years. This is partly due to the relative isolation compared to other parts of the world and the environment of living above the Arctic Circle. Current development efforts focus on natural resources and the building of a deep-water port in Iqaluit. However, the benefits of these programs will be minimal and fairly isolated. In order to promote growth in the territory as a whole, development of basic infrastructure and increased access to services within communities will need to be constructed in order to bring the greatest sustainable gains. Current development policies are vague, with chairmanship holders often only listing development as a goal without listing actual plans. The few instances where development goals are explained, it almost strictly focuses on resource extraction programs. Similar programs in the past have not produced sustainable growth, but rather economies that can suffer due to changes in the global economy. In order for Nunavut to achieve sustainable growth, new and creative solutions will need to be utilized for the challenging climate present in the communities. Current methods only provide limited short-term gains but are not sustainable. The reliance on natural resources and federal support are merely temporary fixes. Development of the Arctic will not be easy, nor will it come quickly. This can be seen in the cost of constructing a deep-water port. Yet that is not a pressing need of Northern communities as there is a lack of external infrastructure to distribute the benefits of a new port. Rather, the funding for the port should be diverted into development projects that help to increase the standard of living in towns. As Thomas Berger mentioned in his final report, "In Nunavut there is no developed wage economy, no industry."²² Nunavut is at a turning point where Inuit communities are shifting away from a traditional nomadic lifestyle into that of a developed wage-based economy, but there are very few ways for Inuk to make a living. As such, creative means of development will need to be created in conjunction with Inuit communities in order to overcome the issues within their territory.

NOTES

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Chapter XIII.

Uncharted Waters: International Maritime Law Concerning the Arctic Ocean

By Michael (Mac) Zelle



I. Abstract

When the Law of the Sea was signed in 1982, the effects of climate change on the Arctic Ocean were unforeseen. The changing climate of the Arctic circumpolar region will soon render commercial shipping and fisheries viable. The contemporary Arctic's political and physical landscape requires an international agreement that addresses the current realities and establishes harmonized vessel standards, international maritime waterway maintenance and safety cooperation, and establishes the international rights and responsibilities of all nations. This paper argues for the need of an "Arctic Ocean Treaty" negotiated as part of the U.N. treaty system. This paper acknowledges that the Arctic Council is a good forum for the discussion of issues pertaining to the Arctic but it is not the appropriate venue for the negotiations of a binding global treaty. This paper demonstrates that while the Law of the Sea is a good base it does not provide a clear enough structure for the Arctic, as it is a unique ecosystem. It is important to clearly establish the rules and regulations that will govern commercial actions in the Arctic, settle maritime and exclusive economic zone boundary disputes, and implement harmonized regulations for the protection of the Arctic ecosystem.

II. Background

Since the days of Henry Hudson and Prince Rupert of the Rhine, explorers and entrepreneurs have sought navigable sea routes through the Arctic Ocean. Today we are on the cusp of seeing the centuries' old goal of northern trade routes realized¹. While the Arctic may never rival the Panama and Suez canals, its use as a transit passage is expected to spike. A report prepared for the U.S.

Coast Guard predicts between a 200% and 275% increase in vessels operating in U.S. Arctic Waters between 2013 and 2025². Earth's oceans are global highways, and all nations have a vested interest in clearly delineated rules. Like any transportation way, there must be rules of the road. There are six nations that border the Arctic Ocean: the United States of America, Canada, the Kingdom of Denmark, Iceland, the Kingdom of Norway, and the Russian Federation. While each have unique domestic concerns relating to the Arctic, there are many areas of collaboration and multilateral agreement. The impending opening of the Northwest Passage and Northern Sea Route have intensified interest in the Arctic. The Arctic has long been viewed as a special region, and as such it is excepted for many international laws.

It is important to note that Iceland is not generally considered an Arctic Coastal State. Klaus Dodds and Valur Ingimundarson break down the arguments for and against the inclusion of Iceland in discussions pertaining to the Arctic in their article "Territorial nationalism and Arctic geopolitics: Iceland as an Arctic coastal state"³. They point out that Iceland is beyond a doubt a littoral nation (bordering the Arctic Ocean), but state that the other five Arctic Littoral Nations do not consider it a "coastal state". The authors define "coastal state" as having a spirit of Arctic nationalism, developed from a shared history and culture. For the purposes of this paper and its interpretation of International Law, geographic and hydrographic definitions will be used and Iceland will be included.



Map showing the Arctic Ocean and maritime trade route. Source: CIA World Factbook⁴

III. Law of the Sea and the Arctic

The United Nations Convention On The Law Of The Sea (UNCLOS) establishes a foundation for an international agreement on the navigation of Arctic waters⁵. UNCLOS; Part VIII: Article 234, Ice-Covered Areas, deals specifically with the rights of national governments to place regulations and restrictions on the navigation of Ice Covered Waters for the purpose of safety and the environment. Article 234 establishes a legal exemption from the right to Innocent passage as long as any restrictions are "non-discriminatory". Nations have the right, and in fact the obligation, under the UNCLOS to ensure safe navigation with a negligible impact on the fragile Arctic environment. UNCLOS Part III, Straits Used For International Navigation sets the parameters by which states can regulate innocent passage through straits used for international navigation.

Article 234, developed out of a desire by the Canadian Government to ensure their sovereign right to regulate their Arctic water⁶. International pressure over Canada's "Arctic Waters Pollution Prevention Act" (AWPPA) had forced the Canadian government to withdraw from the International Court of Justice's Compulsory Jurisdiction over Canadian environmental regulations⁷. The international maritime community viewed the AWPPA as excessive action on Canada's part and viewed the environmental regulation as prohibitive⁸. Canada was able to muster enough support at the UNCLOS III session in 1976 to achieve the passage of Article 234, which in practice created the Arctic as a special region, unbound by almost all other provisions of UNCLOS. This tactic of bestowing a special status on something and thus exempting it from standard provisions is called *Lex specialis*. The text of the article reads:

SECTION 8. ICE-COVERED AREAS

Article 234

Ice-covered areas

"Coastal States have the right to adopt and enforce non-discriminatory laws and regulations for the prevention, reduction and control of marine pollution from vessels in ice-covered areas within the limits of the exclusive economic zone, where particularly severe climatic conditions and the presence of ice covering such areas for most of the year create obstructions or exceptional hazards to navigation, and pollution of the marine environment could cause major harm to or irreversible disturbance of the ecological balance. Such laws and regulations shall have due regard to navigation and the protection and preservation of the marine environment based on the best available scientific evidence."

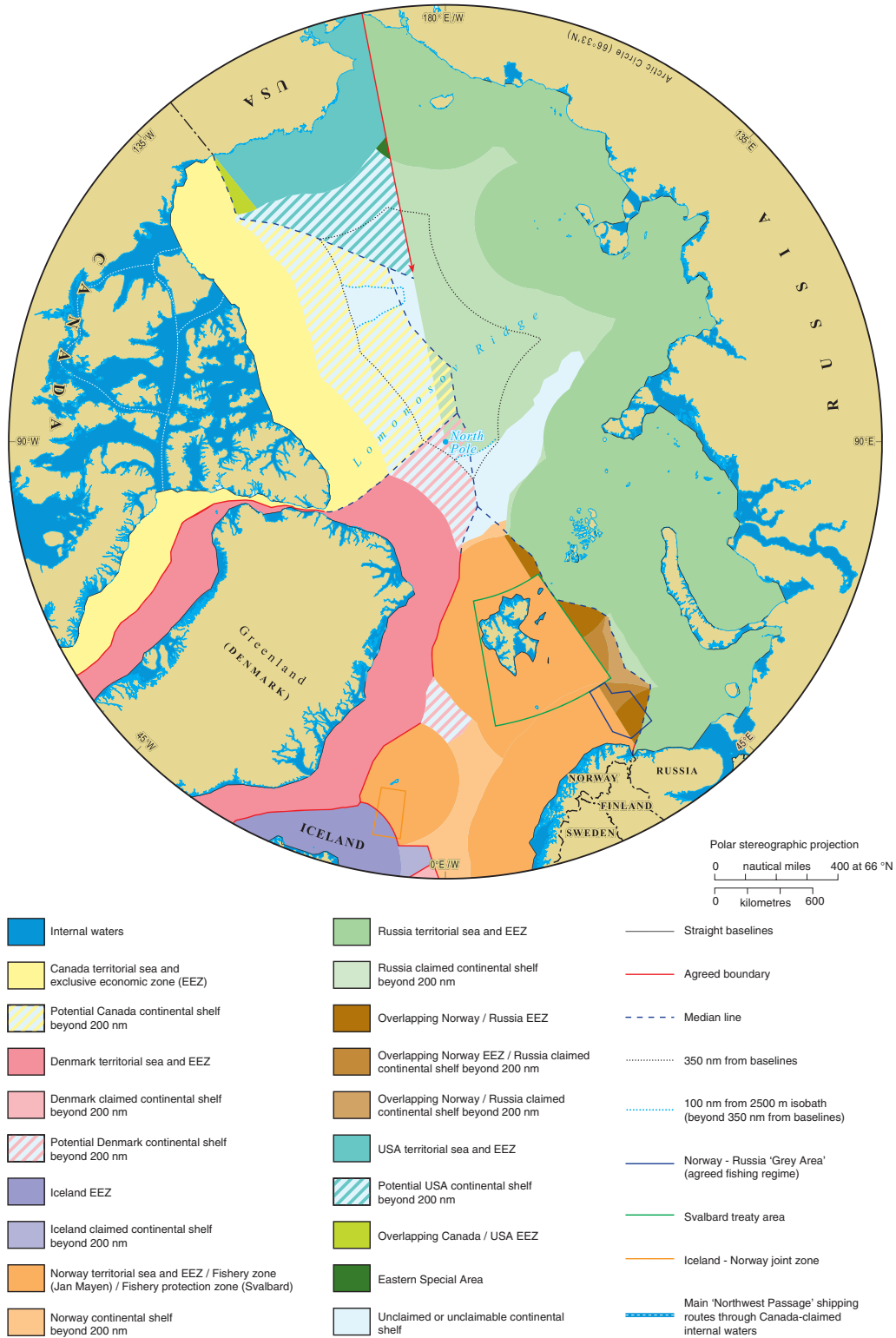
The largest successes of Article 234 are that it laid to rest any question of the legality of the AWPPA. All signatories of UNCLOS were thus treaty bound to recognize Canada's and all Arctic nation's right to extraordinary regulation concerning the Arctic. The AWPPA has had a global effect of being the basis for the international insurance market's requirements for Arctic shipping⁹.

Article 234 presents a new set of problems from what it hoped to accomplish. It is a remarkable shift away from the international harmonization of regulatory regimes, Article 234 does not give Arctic states *carte blanche* — but it is close. The failure to include a guarantee for Innocent passage is remarkable in its own right. Regulations designed specifically to discriminate against specific nation's shipping and fishing fleets could in fact be viewed as a non-discriminatory standard. Article 234 also permits nations to pursue less than what many ecologist and maritime experts would consider satisfactory environmental protections and regulations, as it does not mandate any sort of minimum protection. Article 234 is remarkable in that its propagation came from a document, with the primary objective of harmonizing standards and thus nullifying unilateral action by signatures.

All Arctic nations, barring the United States of America, have ratified the Law of the Sea¹⁰. There is little evidence to suspect that the U.S.A. will ratify it at any point in the future. The United States honors many provisions of the Law of the Sea, but moving forward it is paramount that any agreement for the Arctic include the U.S.A. as one of the six Arctic Littoral Nations.

There are a number of EEZ boundary dispute at the moment. As signatories of UNCLOS, all Arctic Littoral Nations have the right to submit claims to the Commission on the Limits of the Continental Shelf (CLCS). The CLCS was established as part of UNCLOS, and is a part of the legal wing of the International Maritime Organization (IMO)¹¹. The map below shows the current boundary disputes¹²:

Figure 3. Maritime jurisdiction and boundaries in the Arctic region.



Source: International Boundaries Research Unit, Durham University.

In his seminal 2007 article "The Arctic Waters and the Northwest Passage: A Final Revisit" Donat Pharand examines the intersection of Canadian maritime sovereignty and international maritime law. He concludes by stating: "If foreign navigation takes place in the Northwest Passage without Canada taking adequate preventive measures, it is possible that the Passage might be internationalized and subject to the right of transit passage"¹³. This is a noteworthy statement because Dr. Pharand in the same article stated that:

"There exist three reasons for the right of innocent passage not to be applicable: first, the waters were enclosed by straight baselines under customary law, Canada not being a party to the 1958 Territorial Sea Convention; second, the innocent passage provision of that Convention had not become part of customary law by 1985; and third, Canada did not become a party to the 1982 Law of the Sea Convention until 2003, nearly 20 years after drawing the baselines, and the innocent passage provision of the Law of the Sea Convention cannot apply retroactively to change the established legal status."

His argument against application of the rights of innocent passage relies on *stare decisis*. This of course is constant with international legal precedent. That is what makes his admission that the Arctic – and the Northwest Passage in particular – may become subject to international transit passage all the more powerful. Dr. Pharand acknowledges that the intersection of interest in the Arctic may force a re-evaluation of the legal framework. He concludes his article with the statement: "ideally, the circumpolar stewardship ought to transcend national sovereignties to ensure the protection of the Arctic for the benefit of humankind. However, one has to be realistic: The limits of national sovereignties in the Arctic must be clarified before there can be any meaningful circumpolar stewardship." He is correct, moving forward there needs to become clearly defined rights and responsibilities of Arctic Nations, and that a reliance on the current legal patchwork is unlikely to be sufficient moving forward.

IV. The International Maritime Organization and the Arctic

On January 1, 2017, the International Maritime Organization's (IMO) Polar Code will come into effect¹⁴. The Code is an amendment to both the International Convention for the Safety of Life at Sea (SOLAS) and the International Convention for the Prevention of Pollution from Ships (MARPOL), and as such it is legally binding on all signatories of those conventions. The Polar Code establishes rules and regulations of vessels operating in Arctic waters. Its scope is large, touching on issues from vessel hull thickness to the type of clothing that must be worn by members of the crew. The

Polar Code is an improvement on its non-binding predecessor, the IMO's Guidelines For Ships Operating In Arctic Ice-Covered Waters¹⁵.

Currently Canada's AWPPA is more stringent than the Polar Code. A situation could arise where a vessel in compliance with the IMO's Polar Code, but not with AWPPA seeks passage through Canadian Arctic Waters. Does Canada's Article 234 right to regulate its Arctic Waters supersede the vessel's right of innocent passage? A question is raised as to what constitutes a discriminatory regulation. While various commentators have pondered over this, the ultimate answer to the legal question is that UNCLOS, as a United Nations Treaty, supersedes the IMO's regulations.¹⁶ While signatory nations are bound by the code, they are in effect subjugated into complying with national regulations where they are more stringent, as in the case of Canada's AWPPA. UNCLOS Article 311: "Relation to other conventions and international agreements", clearly establishes the supremacy of UNCLOS over other conventions and stresses that the rights and responsibilities established in UNCLOS cannot be fundamentally altered by subsequent agreements¹⁷. To replace a national regulation with an International one would in essence be a violation of Canada's sovereign rights established under Article 234.

This is not to suggest that the IMO is an inappropriate or inadequate body to deal with Arctic matters. The IMO is a robust organization, and if regulations in the Arctic were harmonized the IMO could play an important role in enforcement. Under the current legal status however, the IMO can only at best play second fiddle to national regulatory regimes. This will hopefully change going forward.

V. An Example from History: The Antarctic Treaty

There has long been discussion of an Arctic Ocean Treaty modeled after the Antarctic Treaty. It has been argued that this model would provide the necessary specificity and harmonization of Arctic standards. Julia Jabour in her 2015 article "Pharand's Arctic Treaty: Would an Antarctic Treaty-Style Model Work in the Arctic?" compares and contrasts the similarities and differences of both polar regions¹⁸.

There are many facets that have led to the success of the Antarctic Treaty. The key areas where the Antarctic Treaty has succeeded, as identified by Dr. Jabour are: international recognition and respect for national sovereignty; the universal right of inspection of facilities, vessels, and aircrafts to ensure treaty and regulatory compliance, giving scientific endeavors priority status, proof of commitment to the Antarctic before engagement in the decision making process, consensus

decision making that ensures harmony, and multi layered dispute resolution procedures¹⁹. One of the most successful components of the Antarctic Treaty is its series of conventions, which are supplementary components of it. These conventions -- The Convention for the Conservation of the Antarctic Seals, The Convention on the Conservation of Antarctic Marine Living Resources, and The Protocol on Environmental Protection to the Antarctic Treaty -- all provide enforceable sets of regulations that all signatory nations are bound by.²⁰ These provisions ensure not only the peaceful use of Antarctica but also the harmonization of standards and regulations. It is this convention style of treaty-making that is the most attractive component of the Antarctic Treaty. It allows nations who have ratified the Antarctic Treaty to decide which conventions they would like to additionally sign on to. This model would work well for an Arctic Ocean Treaty. Not only would it help alleviate some of the pressure of a large, inflexible, multilateral agreement, but it also allows for periodic review of specific sections, without having to reopen negotiations on the entire Treaty.

An Arctic Ocean Treaty which follows the Antarctic Treaty model would serve the Arctic well. The major difference between the two polar regions is sovereignty. While there are six nations who claim portions of the Antarctic as their own territory and two more who reserve the right to do so, the Antarctic Treaty treats the continent as a condominium under joint administration. In the Arctic there are six littoral states who have EEZ's in the Arctic Ocean, while there are cases of maritime boundary disputes, there are no disputes of note concerning land¹.

Donat Pharand has written extensively on the topic of international law and how it pertains to the Arctic, his 1992 article "The Case for an Arctic Regional Council and Treaty Proposal" was in many ways the starting point for the discussions around the formation of the Arctic Council²¹. Dr. Pharand identified six areas that would need to be addressed by an international agreement dealing with the Arctic: Protection of the environment, coordination of scientific research, the conservation of living resources, sustainable economic development, the health and social wellbeing of Arctic inhabitants, and cooperation for peaceful purposes²². These proposals are as ambitious as they are thoughtful. Dr. Pharand's list in many ways resembles Dr. Jabour's list of areas of success for the Antarctic Treaty.

Many prominent voices concerning the Arctic believe that a broad international agreement on the Arctic is politically infeasible. Oran Young, a vanguard scholar of the Arctic, wrote in a 2010 piece:

¹ Canada and The Kingdom of Denmark have a dispute over Hans island. An uninhabited island in the middle of the Kennedy Channel between Greenland and Ellesmere Island.

“Efforts to hammer out the terms of an Arctic Ocean framework agreement are not only likely to prove frustrating; they are also likely to divert attention from efforts to address a number of more focused issues... that may well lend themselves to issue specific agreements in the near future. This is not to say that we should abandon all hope of devising an Arctic Ocean framework agreement in the longer run. For the moment, however, pursuing this goal is not only politically irrelevant, it may also be counterproductive in the sense that it gets in the way of efforts to hammer out the terms of focused agreements dealing with issues like search and rescue and the protection of the Arctic marine environment from oil spills.”²³.

Dr. Young further stated in a 2012 piece, “An Arctic treaty would almost certainly leave much to be desired in terms of the twin issues of flexibility across issues and adaptability over time”²⁴. Dr. Young is not wrong that it will be a long and arduous negotiation process, but as the Antarctic Treaty has shown it is possible to achieve a strong accord that exhibits both flexibility on issues and longevity.

In 2008 representatives of the United States of America, Canada, the Kingdom of Denmark, the Kingdom of Norway, and the Russian Federation met in Ilulissat, Greenland, to discuss this matter². They issued the Ilulissat Declaration stating their opposition to establishing an international regime for the Arctic²⁵. On first glance this would appear to support Oran Young's claims. However, it can also be viewed as political posturing. Many things were in flux in 2008, and engaging in negotiations for a comprehensive Arctic treaty was not a high priority for a world in the throngs of a global financial crisis. Eight years' latter, the economic outlook has improved, and the economic viability of the Arctic has grown significantly. If one Arctic Littoral Nation was to advocate initiating negotiations for an Arctic Treaty, other nations would be forced to engage, and thus begin the process. It may sound like like naiveté, but as history has shown in the past it does not take extreme pressure, but rather diligent dedication to multilateral engagement, to establish *Lex specialis* treaties.

There are many prominent and successful *Lex specialis* treaties, but the Montreux Convention Regarding the Regime of the Straits²⁶ — which regulates the Dardanelles — immediately comes to mind. The Montreux Convention achieved what many thought politically infeasible, convincing the Turks to surrender some sovereignty of their most precious geopolitical asset, in order to guarantee the international community innocent passage access to the Black Sea. This kind of

² It is of note that Iceland was left out of this meeting. The view that they were culturally not a “costal state” can be viewed as a primary factor for their exclusion.

bold international approach is what is needed for the Arctic. The Article 234 approach is incongruous with the overarching spirit of UNCLOS. The next section of this paper will propose a structural framework for the proposed Arctic Ocean Treaty. While there is little political will at the present, there is a well-established need for. The day is bound to come when the international community resolves to clarify maritime law and its applications in the Arctic Ocean.

VI. Policy Recommendation: An Arctic Ocean Treaty

The Arctic's unique history, climate, and geography demand a specialized approach to formulating international agreements that establish Arctic maritime code. There are five main areas that must be addressed: Territorial and EEZ boundaries, rights and responsibilities of Arctic Littoral Nations, maritime environmental regulation, maritime code and standards, and International fish stock management.

At present, national governments have the sole enforceable authority in the Arctic. The Arctic Council has no regulatory authority and the IMO's Polar Code is in essence superseded by stricter national regulations. The Arctic however is rapidly seeing economic opportunities realized. It is necessary that the international community agree to a framework for the Arctic similar to the regime in place for the Antarctic.

Recognizing the difficulties and time that it takes to negotiate a multilateral agreement it is important that work begins soon in order to ensure that the framework is in place before any potential altercations could arise. All nations wanting to operate within the Arctic Ocean should be required to become signatories of the treaty.

The Arctic Council is the foremost forum for the discussion of issues pertaining to the Arctic but not the appropriate venue for the negotiation of this treaty. As it would be a treaty open to all nations wishing to engage in Arctic Activity, and not all of those nations are parties of the Arctic Council, a global forum is needed. United Nations Treaty System is the appropriate legal regime for a treaty dealing with one of the earth's oceans. The IMO is the global maritime regulatory body and forum, and as such the appropriate venue for these treaty negotiations. Emphasis must be placed on the voices of Arctic Littoral Nations, but the voices of all Maritime Nations must also be present.

There should be two major sections of this agreement: Arctic State Rights and Responsibilities, and Arctic Regulations.

The first section should pertain to all nations but deal specifically with the six Arctic Littoral Nations. The second section should deal with universal issues and make no special references to Arctic littoral states. The Treaty should be organized as follows:

1. Arctic State Rights and Responsibilities

a. Defined national territorial boundaries and EEZ boundaries:

- i. For territorial waterways nations shall possess the right to restrict foreign and domestic flagged vessels for operating in waters deemed unsafe or unmaintained.

b. Defined territorial waterways and international transit passages:

- i. For international transit passages the treaty should clearly define the responsibilities of the relevant sovereign nations to ensure safety and security in the passage. This includes but is not limited to surveying and setting channel markers, engaging in channel maintenance, providing icebreaking capability, ensuring search and rescue standards are met, and inspection to ensure compliance with the environmental and safety statutes of the Treaty. Nations should be permitted to charge a transit toll for passage through the international transit passage, as long as this toll is used exclusively to fund the services that the sovereign nation provides related to the maintenance and operation of the international transit passage.

2. Arctic Regulations

a. Maritime environmental regulation:

- i. This section shall be a convention, and thus subject to periodical review and updating. All nations operating within the Arctic Ocean shall agree to adhere to the same unified and stringent environmental safeguards. It is necessary to harmonize standards to ensure the highest degree of compliance and avoid confusing or contradicting national regulations. Strict standards should be created in order to ensure the protection of both land and marine biological life. All nations shall possess the power of audit, but it shall be the explicit responsibility of the sovereign nation where the activity is occurring to ensure compliance.

b. Maritime code and standards:

- i. This section shall be a convention, and thus subject to periodical review and updating. It is important that all vessels entering Arctic waters meet a high standard of technical specification and equipment preparedness. The Polar Code captures this spirit. Its provisions are just not stringent enough. Using the Canadian AWPPA as a model, nations should craft a harmonized set of standards and regulations for Arctic vessels. This not only prevents conflicting standards but also helps ensure enforceability. As the AWPPA has shown, an important factor will be the international insurance market.

Internationally harmonized standards and regulations help abate risk for insurance purposes.

- c. International fish stock management:
 - i. Each nation should have the power to establish its own regulatory regime. However, there is a need for a mechanism to establish international co-managed fisheries for migratory stocks as well as boundary straddling stocks. Nations should not be permitted to exclude fishing fleets under a foreign flag, but foreign-flagged fishermen should be mandated to strictly adhere to the regulations of the sovereign nation. Provisions should be made to ensure that local populations have a strong say in the management of their local fish stocks.

VII. Concluding Remarks

Negotiating international treaties is a marathon, not a sprint. There will be many technical points of contention between not only the Arctic littoral states but also between maritime nations involved in the treaty negotiations. What most nations should be able to agree on is the benefits provided by an international treaty.

While I strongly opposed the notion of turning the Arctic be into a protected global common – similar to Antarctica – I do believe that it is necessary for Arctic Littoral Nations, and all nations operating within the Arctic Ocean, to view Arctic regulation as a condominium. Each Littoral Nation is in the diffusion zone of the other five, and thus each nation has a vested interest in ensuring sufficient regulations.

The Arctic is rapidly changing, and the world must act to ensure that there is a framework in place to protect the fragile Arctic environment, as well as establish clearly defined rights and responsibilities of all parties wishing to engage in the Arctic. It is of paramount importance that the rights of all peoples living along the shores of the Arctic Ocean are enshrined and protected and not infringed upon by this international agreement. I believe an Antarctic-style treaty is the appropriate course of action. It may be protracted, but that is not reason in its self from not pursuing the objective. Arctic Littoral Nations and Maritime Nations both stand to gain from establishing a treaty regime for the Arctic Ocean. I postulate it is not a matter of if, but when, the negotiations on this matter will begin.

NOTES

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PART IV.

THE FUTURE OF SECURITY & COOPERATION IN THE ARCTIC

As the Arctic continues to warm at an alarming rate, the number of maritime vessels, cargo, and individuals in the Arctic will continue to increase. Along with this increase in activity comes the increase of accidents, incidents, and ship casualties. This threat, not only to the people and cargo on board, but to the environment around it, requires an adequate SAR capability in the Arctic. Since the collapse of the Soviet Union, the amount of cooperation in the Arctic among all Arctic nations has dramatically increased. Despite this increase, recent geopolitical shifts have slowed SAR development and international cooperation, resulting in only three of ten Russian SAR facilities scheduled for 2015 to be built.

The Arctic Council, a forum for communication in the Arctic, was established in 1996 as a way for Arctic nations and indigenous people to communicate on equal terms. In 2011, the first SAR agreement was signed.¹ Now, twenty years after the creation of the Arctic Council, a lot of what was agreed upon in the SAR agreement is no longer viable. The economic sanctions imposed on Russia in 2014, shortly after the Crimea incident, has negated Russia's ability to interact with many Arctic states both through meeting, as in the Arctic Council, and through military cooperation (i.e. SAR). Since the first sanctions have been imposed, each Arctic nation has imposed some sort of sanctions towards Russia, making any cooperation between the Arctic nations and Russia, nearly impossible.² We have seen this through the exclusion of Russia in SAR exercises as well as missing Russian officials in Arctic Council meetings.

In addition to SAR, environmental impacts on the Arctic region have caused the region to become less stable in environmental and security terms. Since this ecological shift, the ice in the Arctic continues to melt, which frees up more and more space for human activity. With the increased amount of human activity in this area, security concerns arise as now nations are not only concerned about the well-being of the environment, but also of the people operating up in this frigid region. The instability of the region raises concerns from a security standpoint as nations are now questioning the military intentions of other Arctic nations. A security dilemma is beginning to arise in the Arctic as these nations perceive security threats to their own national sovereignty. This dilemma is not only raising security concerns, but is actually causing Arctic nations to slow their cooperative efforts. The decrease of cooperation has affected environmental efforts, political relations, and notably SAR operations. These next two chapters aim at looking at the implications on security and Search and Rescue that this lack of cooperation is causing.

CHAPTER 9

THE ARCTIC SECURITY DILEMMA

By Kyle Wheeler

Abstract

This chapter looks at the strategic significance that the Arctic holds from a security standpoint, specifically from regional perceptions and threats. Looking at the past, present, and future of Arctic security concerns and implications, this chapter analyzes how different regional powers in the Arctic view their sovereignty and threats. The Arctic Council is the main institution drawing countries in to cooperate with each other on all Arctic issues, except security. This lack of discussion on Arctic security is what could be driving Arctic cooperation, or lack thereof, into conflict. Since the Russian intervention in Crimea in 2014, economic sanctions have been imposed on Russia from every Arctic Council member, causing a divide between Russia and the other Arctic states. This divide is one of the main security challenges in the Arctic as international cooperation has now isolated the largest Arctic player, creating growing security risks. This chapter looks at these new growing security concerns, such as Russia and the emerging Asian influence in the region, and analyzes the current Arctic Security situation and how the Arctic could turn from a zone of international cooperation, into a zone of international conflict.

I. Introduction

After the fall of the Soviet Union in 1991, the Arctic region went from being a zone of tension throughout the Cold War, to a zone of cooperation with the creation of the Arctic Council in 1996. With the fall of the Soviet Union, the Cold War ended, eliminating most nuclear tensions with the U.S., where the Arctic was one of the center points. However, as climate change began to affect the Arctic, the Arctic Security scene began to change, "Despite the low level of interstate tension in the Arctic, the increased global attention that the Arctic has received since the mid-2000s has made a number of the Arctic states increasingly nervous about their sovereignty and national security interests in the region".³ This chapter aims to look at the security concerns in the Arctic that have created this shift in the region, and how these concerns will have an impact on the future of the Arctic Security scene.

II. Background

The Arctic is one of the most untouched regions in the world due to its isolation and the harshness of its climate. However, despite the inhospitableness of the region, the Arctic is in the forefront for the future of resource extraction, maritime trade, and militarization. Explorers have been looking at the Arctic since the 16th century, however it hasn't been truly explored until the

past 100 years or so, and it wasn't until after World War II that militarization of the Arctic truly began. It is during the Cold War that the Arctic started to become militarized and concept of Arctic Security began.

After World War II, the entire world power structure changed, as the victorious U.S. and Soviet Union began to become the dominant hegemonic powers in the World. As the hegemonic powers, the two contested each other, each trying to be the dominant power in the world, which lead to multiple power struggles and ultimately into the world's largest arms race. With this "cold war" occurring, the Arctic began to gain a lot of attention from both parties, as the Arctic was the shortest direct route between the two powers. With such a close proximity, and with weapons technology advancing, both powers began to worry about the other using the Arctic as a shortcut to dominate the other. With the creation of nuclear weapons and missiles that could travel immense distances, both countries looked to the Arctic as a key strategic area in order to preserve their sovereignty. With the aid of Canada, the U.S. and Canada created the DEW line, or the Distant Early Warning Line, in the Canadian and American Arctic, which would be used as an early warning system in case of Russian ICBMs. This would had allowed the U.S. enough time to launch its missiles to counter a Soviet nuclear strike, and limit the chance of a preemptive strike from occurring. The Soviets on the other hand, used the Arctic as an extensive nuclear training ground, specifically on Novaya Zemlya, an archipelago in the Barents Sea.

However, as the Cold War went on, there were no direct confrontations between the US and the Soviet Union, and no ICBMs were launched from either party. After the collapse of the Soviet Union, the US went on to become the hegemonic power in the world, but still maintained an Arctic military presence. After the collapse, a new era of cooperation began with the formation of the Arctic Council, the governing body of the Arctic which aims to a "commitment to sustainable development in the Arctic region, including economic and social development, improved health conditions and cultural well-being;...commitment to the protection of the Arctic environment, including the health of Arctic ecosystems, maintenance of biodiversity in the Arctic region and conservation and sustainable use of natural resources".⁴ With this newly founded Arctic Council, the international focus changed as nations focused on preserving the Arctic and committing to the well-being of the indigenous peoples. However, the Ottawa declaration makes one clear declaration, "The Arctic Council should not deal with matters related to military security"⁵. This clear distinction in a lack of discourse on military security in the Arctic is the basis of the current situation in the Arctic on security related issues.

In 2014, Russia intervened militarily into regions of Ukraine, notably Crimea, a region in the southeastern part of Ukraine, which was later annexed by Russia after a referendum in the region. This incursion into Ukrainian territory, and the later annexation, caused a lot of unrest with the Arctic nations. To this date, all of the Arctic Council nations have imposed some sort of sanction on Russia, Russian companies, or individuals and accused Russia of breaking international law and violating the sovereignty of Ukraine by intervening militarily. This military intervention has ultimately hurt cooperation between the Arctic Council nations and Russia, causing a lack of cooperation between the Arctic Council and the largest Arctic nation.

III. North American Security

While the actuality of a war or military conflict occurring in the Arctic is very improbable, there are still security concerns of all parties, especially to the U.S. and to Canada. These two nations, both members of the Arctic Council, are the two countries who make up the North American portion of the Arctic. Canada, the larger of the two parties, holds the vast majority of the North American Arctic as it makes up 40% of the Canadian landmass and 75% of its 243,000 kilometers of shoreline.⁶ The U.S., on the other hand, makes up a very small portion of the North American Arctic with a shoreline of 1,706 kilometers.⁷ These two countries also have their territory surrounding the Northwest Passage, a future maritime trade route through the Arctic, which would connect the Pacific and Atlantic Oceans by following the Alaskan coastline and then through the Canadian Arctic Archipelago. Both nations hold a vast amount of coastline in the Arctic, which gives access to a multitude of resources, and because of this, both nations hold major stakes in maintaining and protecting their sovereignty.

U.S. Arctic Security

For the United States, the Arctic is a key strategic region not only for economic and environmental concerns, but also for strategic security measures. In the U.S.' Arctic Foreign Policy it states the U.S.' principal objectives for the Arctic, the first of them being "Meeting U.S. national security needs", and then added three implementations in 2013 to add "Protect U.S. national and homeland security interests, promote responsible stewardship, and foster international cooperation".⁸ For the U.S., the Arctic represents a key strategic region in protecting and defending its national sovereignty, as it was clearly evident during the Cold War with NORAD's DEW Line. Currently the DEW Line has been replaced with the North Warning System, a joint U.S. and Canadian operation that was created to replace the DEW Line. However, what is the main

security concern for the U.S. that would warrant such an operation? The Cold War may be over and a Soviet threat is no longer a concern, however Russia, the largest Arctic state, does create a growing challenge in the Arctic.

After the 2014 Russian military intervention in Crimea, the U.S. was one of the first to impose heavy sanctions on Russia. Since the sanctions have been imposed, Russian-American relations have been at an all-time low since the Cold War causing much concern. Russia has also expanded militarily into its Arctic region, creating new military bases all over its territory, and currently holds its largest fleet, the Russian Northern Fleet, in the Arctic waters. This large military presence and growing concern of Russian expansion into Ukraine causes many security risks for the US. While the likelihood of Russia pushing that expansion into American territory, it does bring up concerns and questions about the intentions of Russia's military and the evolving security dynamics in the Arctic.

The U.S. not only holds security concerns from Russia and its military encroachment and expansion into the Arctic, but also holds concerns for its territorial disputes. Currently the U.S. and Canada have a territorial dispute in the Beaufort Sea over a section of seabed about 21,000 km² that is claimed by both nations. This area consists of a large mass of natural gas and oil reserves, which makes it a much contested territorial dispute. While diplomatic actions are being taken to try to resolve this dispute, the chance of a military conflict between the two over this is virtually nonexistent. However this brings one of the US' Arctic priorities into play as this is a major and strategic area for the U.S.'s national and homeland security interests.⁹

Canadian Arctic Security

When it comes to Canadian Arctic security, many of the same security risks and challenges that the U.S. has, hold true to Canada as well. While Canada shares the challenges involved with the Beaufort Sea dispute, it also holds even more concern with Russia alongside the military expansion. Canada and Russia are both ratifying members of the United Nations Convention on the Law of the Sea or UNCLOS, and both have filed claims to an extended continental shelf which would allow them the exclusive rights to the seabed and the resources below them such as gas or oil. Both nations have filed said claims, and both nations make claims to parts of the same area, notably the North Pole. While both claims are still being processed, it still brings up the risks of the potentiality of Canada losing economic opportunity in the Arctic.

For Canada the biggest security opposition, besides Russia, lies within its own territory over the Northwest Passage. Canada views it as part of its own terrestrial waters as the Northwest Passage would pass through the Canadian Arctic Archipelago, where most other maritime nations like the European Union and the United States view it as international waters or an international strait, where they would be able to travel freely. Under the international strait definition, "Canada would have the right to enact fishing and environmental regulation, and fiscal and smuggling laws, as well as laws intended for the safety of shipping, but not the right to close the passage".¹⁰ For Canada, maintaining its definition of a territorial waterway is key to maintaining its national defense and sovereignty. With an international definition, Canada could not deny the passage of ships, although it can maintain certain laws and measures, it makes it more of a security risk for Canada to be able to have ships navigate through its archipelago. However, by maintaining it as a domestic sea route, Canada would then be able to not only control the passageway, but it would eliminate security risks that come along with it. A Canadian Northwest Passage would secure the stability of the route, as Canada would be the sole proprietor to deter any foreign engagement or activity in the region.

According to Canada's Arctic Foreign Policy, "Canada's vision for the Arctic is a stable, rules-based region with clearly defined boundaries, dynamic economic growth and trade, vibrant Northern communities, and healthy and productive ecosystems".¹¹ Canada's first pillar of its Arctic Foreign Policy is exercising its own sovereignty. For Canada, its biggest priority is maintaining its sovereignty by defining the regions around it and maintaining the status quo of the established rules. As long as Canada holds disputes with other Arctic Nations about territory and the status of its waterways, there will be major security risks associated until they are resolved. With the Arctic being divided into sections, friction is bound to occur where these new boundaries being created between nations, and this is especially true when the vast resources in the Arctic come into play. The security standpoint in North America is stable, yet security risks are at large for both the US and Canada, as both nations try to exercise their sovereignty, while keeping foreign threats at bay.

IV. European Security

The European Security aspect hold security concerns much like those of the rest of the Arctic nations, however the European Arctic nations have very different dynamics with the involvement of the European Union and that of the North Atlantic Treaty Organization (NATO). For the European Arctic nations, Denmark, Finland, Iceland, Norway, and Sweden, "the

geography, values and political systems that the Nordic countries share influence the way we think about security".¹² Due to their close proximity to each other, and the similarities between the Nordic Arctic nations, they all view Arctic security as a major priority. Although these Nordic nations do hold security concerns about the Arctic, they do set an example of how Arctic security should be addressed and how to approach these challenges.

Norwegian Arctic Security

Of all the Nordic countries, Norway stands out among the Scandinavian Peninsula as it is the only Scandinavian nation that borders the Arctic Ocean. Having this relation with the Arctic Ocean, Norway utilizes many of its available resources mainly that of oil. The Norwegian economy relies heavily on its dependence to oil production and extraction, which makes Norway very wary of its sovereignty and available access to oil, otherwise its economy would fail. By having such high stakes in the Arctic Ocean, Norway holds many security challenges and concerns in order to protect its sovereignty. The majority of them coming from that of Russia once again.

Norway's concerns with Russia lies within its geographical proximity as it shares both a land border and maritime border with Russia. Norway, along with the other Arctic nations, sees Russia's intervention into Ukraine as a violation of international law and has filed sanctions towards Russia. Along with the Russian military expansion into the Arctic Ocean, this creates a difficult resolution for Norway and its national interests in the Arctic. Norway views that Russia has "...demonstrated willingness to use military means to achieve political goals, this is concerning to many".¹³ For a country that relies heavily on its Arctic region to maintain its economy, this type of intervention makes it a high security risk, and "political and military developments in Russia are and will continue to be important factors in Norwegian security and defence policy".¹⁴

Even though Russia plays a major security risk for Norway, Norway has been able to show how the future of Arctic relations could play out. In order for a stable Arctic region, Norway's best interest is to keep tensions low in the Arctic. In order to do this, cooperation with Russia is key, and Norway has already shown that it is capable of doing that. Norway and Russia had a 40 year long Arctic border dispute, which was resolved in 2010, over their maritime border near Svalbard. This dispute was handled by both parties in recognition of their role in the Arctic, in order to "...contribute to securing stability and strengthen the cooperation in the Barents Sea and the Arctic Ocean."¹⁵ Both parties solved this in accordance to international law, mainly that under the UNCLOS. This type of cooperation, is an example of how the future of the Arctic

could look like, using international law as a means to solve disputes over such a critical region. Norway is cautious of Russia for its military activity in the Arctic and in Ukraine, however due to Russia's role in the Arctic, the only way to maintain peace, stability, and their national interests is through cooperation in areas of common interest and adherence to international law.

European Union & Arctic Security

Although the European Union is not a permanent observer on the Arctic Council, it does play a crucial role in Arctic security as it has Denmark, Sweden, and Finland as member states. This puts the EU in an odd position in the Arctic and the Arctic Council as it does not have direct say in the Arctic Council, yet it does have a major influence on three of the Arctic Council member states and all of the European permanent observers to the Arctic Council. With such a strong influence on members and observers of the Arctic Council, the EU plays a major role in influencing and addressing Arctic policies. Even though it has a very indirect involvement in the Arctic Council, the EU lists the Arctic as one of its "areas of privileged interest," making it a high priority on the EU's list.¹⁶ This list targets the Arctic as one of the few regions of the world that bring up questions to EU security.

For the EU, Arctic security is key to maintaining the sovereignty of its nations, maintaining maritime access in the North, and maintaining its relations with Russia. Like the rest of the Arctic nations, the EU has condemned Russia's military involvement in Ukraine, and through sanctions have made cooperation with Russia very difficult. The tension between Russia and the EU has brought up security risks potentiated with the Arctic and the future of its stability. For EU member states, Sweden and Finland, Arctic security is of the utmost priority due to their close proximity with Russia, and the consequences that conflict could bring upon the region. Sweden has urged the EU to broaden its "interest in seeing further development of the EU's Common Security and Defence Policy".¹⁷ For most of the European Union, NATO is the dominant military support in the region, however Sweden and Finland are not members, therefore seek EU guidance and assistance in areas of security.

V. Russian Security

Russia is an Arctic nation, and therefore operates its military in the Arctic extensively in order to protect its maritime and territorial interests. One of these interests is maintaining the Northern Sea Route as a territorial water way, rather than an international passageway. This conflict is very

similar to Canada's Northwest Passage dispute as many international actors view that the sea route, which passes along Russia's coastline on the Arctic Ocean, should fall under international authority. For Russia the sea route is seen as part of its sovereign territory, and a strong active military is necessary to maintain and profit from the economic opportunities. Under Russia's strategic security goals, "ensuring a favorable operational regime in the Arctic zone of the Russian Federation, including maintenance of the necessary combat capabilities of general-purpose troops (forces) of the Armed Forces of the Russian Federation and other troops, military formations, and military agencies in this region" is a key aspect in maintaining its sovereignty and interests.¹⁸ Operating an Arctic military force is a right of Russia under international law, however this operation has caused concern from international communities and with Crimea, is seen as an aggressive move towards the rest of the Arctic nations.

Russia has considerable strategic economic, environmental, and military interests in the region. Compared to the other Arctic Council nations though, Russia is clearly the outlier, despite being the largest of the Arctic nations. Every Arctic nation has some sort of economic sanction on Russia, making it difficult for Russia to operate normally with the other nations. Despite what Russia's intentions were with Ukraine and Crimea, the action has considerably weakened the state's capabilities and has raised security risks for itself as well. By trying to gain the same Arctic influence that the Soviet Union had, Russia has put a strain on its Arctic partners that has made them act in a defensive manner. All of these signs have made Russia back itself into a corner essentially, isolating itself from the rest of the other nations; which continually weaken cooperation efforts and raise concerns for Russia's national interests.

When it comes to the Arctic, Russia is in accordance to UNCLOS and abides by international law. But due to its extra-regional actions, the Arctic becomes a security dilemma as other Arctic nations feel threatened by Russia's expansion and intentions. The Russian actions have put pressure on itself as now it has brought up security risks as it believes NATO's encroachment into the Arctic and into parts of Europe represent an aggressive stance from the Western powers. This 'hostile' positioning and sanctions have put Russia behind the rest of the Arctic nations and has made cooperation with Russia extremely difficult. Due to sanctions, Russia has not been present in recent Arctic Council meetings, which brings up concern for how Arctic relations will look with Russia in the future.

The mixture of the extra-regional events, Western defensive positioning and sanctions, and criticism of Russian endeavors are creating a security dilemma in the Arctic. For the Arctic to

thrive and continue in an 'era of cooperation' this security dilemma must be addressed before circumpolar progress can occur. By closing Russia off from the rest of the Arctic Council, Russia will begin to look towards other parties in accomplishing Russian interests, those mainly of the Asian observers. Currently the situation in the Arctic with Russia and the Arctic nations is going to get worse and worse as relations deteriorate and the already minimal cooperation ceases to exist. At this rate, a new Cold War could be the potential future for the Arctic, and there are tell-tale signs about this everywhere. Recently the Russian Prime Minister, Dmitry Medvedev, announced that the current relations with the West could be described as a new Cold War.¹⁹ This new literature points to the current crisis, with weak relationships and the absence of Russian presence in the Arctic Council, the improbability of an Arctic conflict becomes more of a reality.

VI. The Arctic Council Today & Looking Forward

As stated previously, the Arctic Council clearly defines that the discussion of military security between Arctic nations will not be addressed in the Council. The Arctic Council is an organization based on the principles of cooperation, and a military discourse does not fit into such an organization. However, since the founding of the Arctic Council the security parameters in the Arctic have drastically changed. World dynamics shift as time goes on, it's inevitable, and due to this so must international organizations as well. By not having a discourse on military security, the Arctic is actually being weakened as nations fail to cooperate in maintaining Arctic security. Cooperation is key to the success of the Arctic, and if Arctic nations cannot work out security concerns in an open forum, cooperation will not occur as nations are too concerned about the intentions of the other Arctic nations.

While military security does not fit into the Arctic Council, Arctic security and stability does. The Arctic Council needs to find a compromise between the two as they are both heavily intertwined. If the Arctic is to remain a stable and secure region, then all parties must be held accountable for their involvement, and all parties must be able to discuss their issues and challenges that are being faced. If the Arctic Council is not the place for this discussion, then there needs to be a place for this to occur. Much like the Arctic Economic Council, another council could be created to strengthen the bonds between Arctic nations in ways that the Arctic Council could not. As the primary body of Arctic politics, the Arctic Council needs to be looking to other options to solve this security dilemma.

While the Arctic Council is limited on its ability to handle the current security crisis in the Arctic, individual nations are not. The Arctic nations hold the ultimate power in the Arctic and are therefore the ones responsible to maintain the region. With the sanctions on Russia however, progress will not be made. Russia did break international law with its actions in Ukraine, however the sanctions are not only hurting Russia, but they are hurting the Arctic overall. With these sanctions, cooperation with Russia is very difficult, and this cannot occur if the region is to be stable. Sanctions need to be modified in order to allow Russia to cooperate within the Arctic and with its Arctic neighbors. Every nation holds different sanctions towards Russia, which makes this very difficult feat. In order to increase cooperation in the Arctic, Russia needs to be involved, and nations need to put extra-regional actions to the side in order to keep the Arctic as peaceful as possible.

When it comes to the Arctic, many issues have been brought up throughout the decades, ranging from environmental, economic, maritime, and security issues. If the Arctic is to be maintained not only environmentally, but also economically, then peace needs to be the primary agenda for these Arctic nations. The current security dilemma needs to be solved, otherwise countries will grow farther and farther apart. If this happens, cooperation between nations will cease and the Arctic could fall into shambles. It should be the utmost priority of Arctic nations and the Arctic Council to keep the Arctic secure and stable, as this is the key to a prosperous Arctic.

VII. Policy Recommendations & Concluding Remarks

1. The US needs to join UNCLOS
2. Sanctions against Russia need to be modified
3. An Arctic Security Forum needs to be created

The first recommendation regards the UN Convention on the Law of the Sea. If the Arctic is to operate under international law, then all member states need to follow the same laws. With the US not a part of UNCLOS, then there is no basis for how the Arctic can be governed as there isn't an equal playing ground. By signing UNCLOS, any maritime dispute could be settled by an international body, lowering the tensions that could be caused by such a dispute.

The second recommendation regards Russian sanctions. The sanctions against Russia are completely warranted by the international community, however such sanctions are actually

hurting the future of the Arctic as they push Russia farther and farther away from the rest of the Arctic Council. By modifying the sanctions towards Russia to exclude travel bans and any diction that would hinder Arctic cooperation, this would bring the West and Russia closer together by making Russia more involved with the rest of the Arctic community.

The final recommendation regards an Arctic Security Forum. This forum would be a multilateral organization with all Arctic Council members involved and could host observers as well. The aim of this organization would be to discuss security concerns in the Arctic in a multilateral discussion. This would eliminate any concerns as all parties could discuss the problems they are facing. This organization could also be modified to incorporate Search and Rescue operations, environmental and economic security risks, as well as maintenance of Arctic passageways. All of these aspects would factor into maintaining a stable Arctic region and limiting the possibilities of future Arctic security dilemmas.

NOTES

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³ Duncan Depledge, *Arctic Security Matters* (Paris: EU Institute for Security Studies, 2015), 59.

⁴ Declaration on the Establishment of the Arctic Council (Ottawa, 1996)

⁵ Ibid.

⁶ Laura Bonikowsky, *The Arctic, country by country*, <http://diplomatonline.com/mag/2012/10/the-arctic-country-by-country/> (October 4, 2012)

⁷ Ibid.

⁸ "Arctic", www.state.gov/e/oes/ocns/opa/arc/ (April 24, 2015)

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CHAPTER 10

FACING THE CHALLENGES OF SEARCH & RESCUE COOPERATION IN THE ARCTIC

By Jake Creps

Abstract

This chapter discusses the regression of search and rescue (SAR) development in the Arctic and how shifting geopolitics, tightening economic sanctions, and personal interests in the Arctic have halted progress. The focus of this analysis pertains to the role of the Arctic Council in SAR and the decisions made by past and present chairmanships of the Arctic Council pertaining to SAR development. How has the ideology of the Council shifted since its inception to the present and how we can forecast policy recommendations in the future? SAR is one of the key concerns attributed to economic development, trade, climate change, and food security in the Arctic. In 2011, after the signing of the Agreement of Cooperation on Aeronautical and Maritime Search and Rescue between all Arctic Member States, the development of SAR facilities rapidly progressed.¹ Over the following of three years, Russia was able to develop multiple SAR facilities along the Northeastern Sea Route (NSR).² However, shortly after acts of extreme military aggression in Crimea, economic sanctions imposed by the European Union and the United States have hindered Russia's ability to continue with SAR development in the Arctic. These sanctions include the travel required to participate in Arctic Council meetings.³ With economic collapse on Russia's horizon, it has turned to Asian countries, which recently joined the Arctic Council as Observers, for economic stability and growth.⁴ This has led to increased Asian influence in the Arctic and its role in natural resource development, fisheries, and trade.⁵ The combination of shifting geopolitics, economic sanctions on Russia, and personal interests forms the basis of this chapter.

I. Background:

While there is a vast history in the Arctic, ranging from the days of first discovery and exploration to the division of sovereignty among the region, for the purpose of this chapter the focus will be on Canada's most recent Arctic Council chairmanship, the current chairmanship held by the United States, and the future chairmanship of Finland. During the two years that Canada had the chair, the geopolitical picture for the Arctic and the relations of Arctic countries, specifically Russia and Canada, completely shifted. This shift stemmed from the Ukraine crisis and the following sanctions imposed on Russia from many Arctic states and Observers.

Canada-Russia Relations 2013-2015

Canada has historically been known as a global peacekeeper, a title originating from humanitarian efforts following the World War II. However, Canada-Russia relations recently have

been on the border of hostile. Former Prime Minister of Canada, Stephen Harper, held a heavy grudge on Russia following its actions in Crimea and Ukraine. Over time, tensions continued to grow.

In terms of Arctic relations, Russia has been considered a bully, of sorts, in Arctic development. Considering Russia has the largest nuclear powered icebreaker fleet in the world, it is only suiting.⁶ Canadian neglect, for a lack of better terms, has led to it playing catch up on Arctic capability. Although the Northwest Passage isn't set to be fully navigable, reliably, for another ten years, it is melting at an alarming rate. Canada understands it is in their best interest to begin the development of an icebreaker fleet. This will increase its ability to navigate the icy waters of the Canadian Archipelago and, in turn, increase its ability to develop the resources of the Arctic, promote its sovereignty of the Northwest Passage, and increase its SAR capability.

In 2013, Prime Minister Harper made an aggressive claim to extend its northern sea boundary claim.⁷ This statement, met with a stiff response from Vladimir Putin who vowed to increase Russia's military capability in the Arctic. This tension originates from the territorial dispute over the Lomonosov Ridge. While the ridge extends over majority of the Arctic Ocean floor, the origin of the ridge is claimed by both Russia and Canada. When the dispute is finally settled, the country with the claim to the Lomonosov ridge within its continental shelf will have a dramatic amount of influence in the Arctic region.

SAR in the Arctic is, despite the list of potential conflict areas, one of the many ways cooperation in the Arctic can be promoted. However, due to the recent relations with Russia and the West, economic sanctions and their effect on military interaction and travel, that cooperation has come to a halt. In 2014, a joint exercise, Northern Eagle, between Russia, the United States and Canada, which involved a great deal of SAR simulation, was put on hold and eventually canceled. In 2015, Arctic Zephyr, another naval exercise in the Arctic, excluded Russia altogether. The inability for Russian officials to travel under the sanctions travel restrictions prevent any future diplomatic solution.⁸

Not only have sanctions prevented military interaction, they have had an unexpected externality. In 2013, five Asian countries were introduced as Observers in the Arctic Council. Many countries, including China, are also interested in resource extraction, fishing, and trade in the Arctic. Economic sanctions on Russia have caused more business with Asian

countries to occur. The lack of Russian exports in much of Europe, Canada, and the United States, has forced Russia to the East.⁹

Among the Asian countries introduced into the Arctic Council as Observers, many of them do not hold the same ideology of Arctic development as other Arctic nations. This difference in political, economic, and social values, between the West and East will cause long-term problems with Arctic relations as the East gains influence in the region through Russia. This further highlights the idea that tension between Russia and the West must be resolved diplomatically soon if sustainable development of the Arctic is to be achieved.

In 2015, with the chairmanship of the Arctic Council being passed to the United States following the Iqaluit Declaration and the election of a new Prime Minister in Canada, the future of United States-Canada-Russia relations looks hopeful. The Arctic Council, as a conduit of communication between Arctic nations, faces new challenges in Arctic relations. Now, over one fourth of its way through its chairmanship, the United States, with the help of other Arctic nations is taking steps in the right direction.

II. Search and Rescue, a History in Numbers

Table 1. Ship Casualties in Arctic Circle Waters, 2005-2014

| | Ships of 100 gross tons or more | | | | | | | | | | |
|-------------------------------------|---------------------------------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | Total |
| Machinery damage/failure | 2 | 3 | 5 | 13 | 14 | 16 | 12 | 13 | 20 | 27 | 125 |
| Wrecked/stranded | 1 | 4 | 10 | 11 | 14 | 9 | 9 | 8 | 10 | 14 | 90 |
| Miscellaneous | 0 | 0 | 5 | 1 | 4 | 4 | 2 | 6 | 5 | 5 | 32 |
| Fire/explosion | 0 | 0 | 3 | 1 | 2 | 6 | 6 | 1 | 4 | 2 | 25 |
| Collision | 0 | 0 | 0 | 1 | 4 | 10 | 4 | 4 | 2 | 0 | 25 |
| Contact (e.g., harbor wall) | 0 | 0 | 1 | 1 | 1 | 3 | 1 | 3 | 6 | 4 | 20 |
| Hull damage | 0 | 1 | 3 | 1 | 6 | 2 | 2 | 1 | 2 | 1 | 19 |
| Foundered (i.e., sunk or submerged) | 0 | 0 | 1 | 1 | 2 | 0 | 3 | 1 | 1 | 2 | 11 |
| Total | 3 | 8 | 28 | 30 | 47 | 50 | 39 | 37 | 50 | 55 | 347 |

Table 1. ¹⁰

Table 1 shows the trend of maritime accidents over the last eleven years. This chart only accounts for large ships of one hundred gross tons of more. For the purpose of this chapter, I will be operating under the assumption that, as sea ice extent recedes maritime traffic increases.

The purpose of this chart is to show the correlation between receding sea ice and maritime accidents in the Arctic

State of the Arctic, Incidents, Search and Rescue – 2005

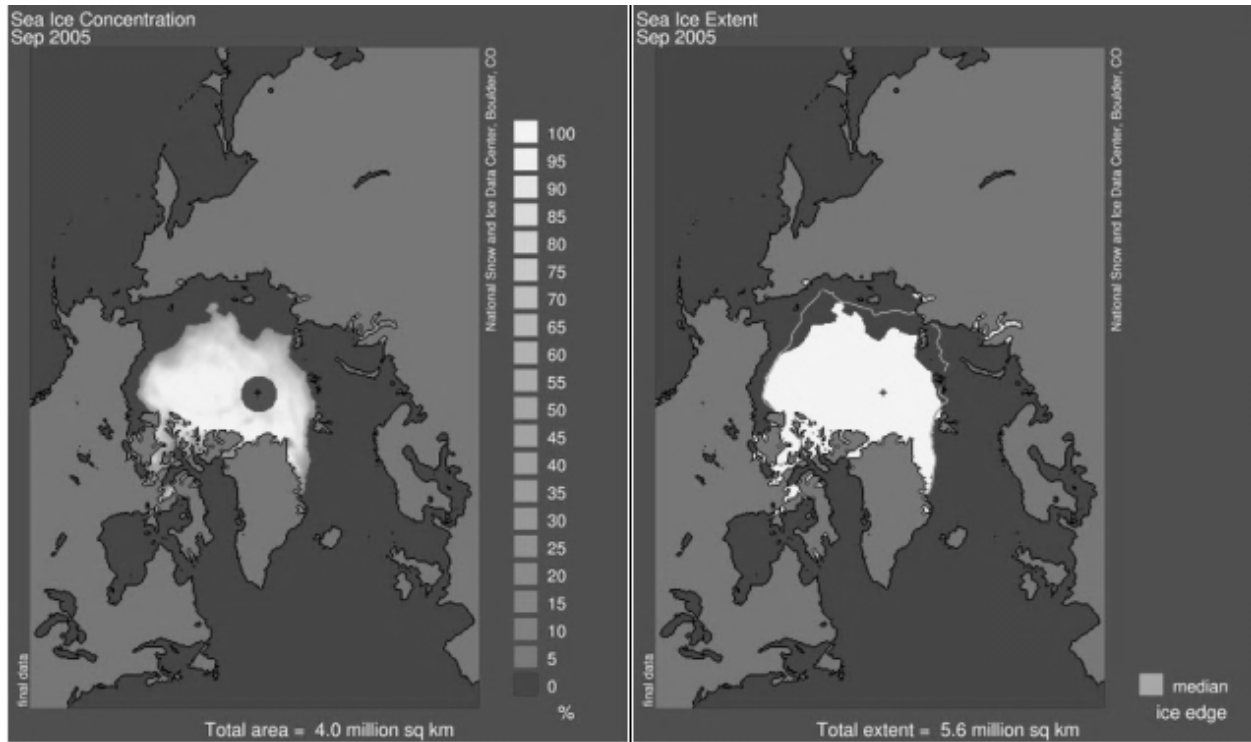


Table 2. ¹¹

In 2005, as maritime traffic in the Arctic began to develop, the sea ice extent in the Arctic was below the average, but the ice concentration wasn't abnormal for the region. Majority of the melted ice was along the Russian Arctic coastline. This freed up the Northern Sea Route for maritime traffic. The table above depicts this trend.

In addition to the data collected on sea ice extent and concentration, the Congressional Research Service collected data on the incidents relating to ship accidents in the Arctic. Table 1, which will be referred to frequently throughout this report, shows the trend of accidents in the Arctic as time progresses. Comparing that data to the image of sea ice extent and traffic, we will see, over time, that as sea ice recedes, and maritime traffic increases, incidents in the Arctic relating to maritime accidents will also increase, highlighting the need for SAR development in the Arctic.

State of the Arctic, Incidents, Search and Rescue – 2007

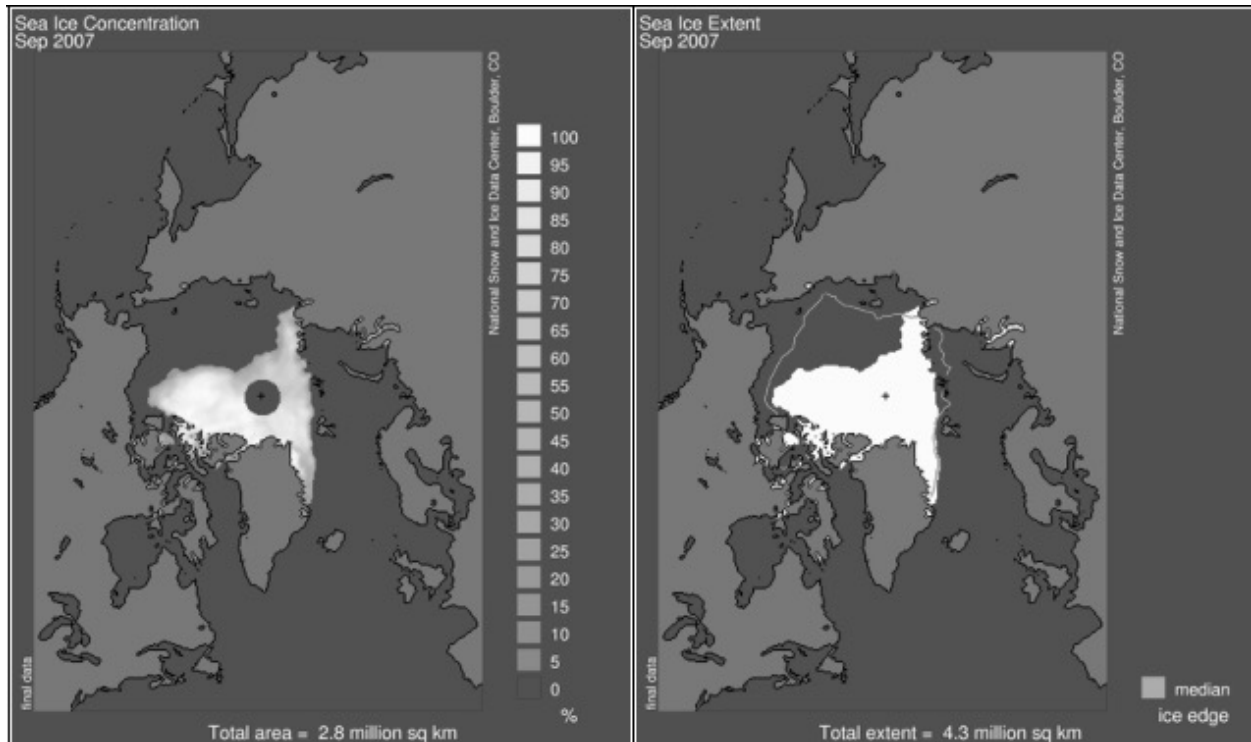


Table 3. ¹²

In 2007, the Arctic sea ice experienced the most rapid melting since data collection began. It wasn't until 2012 that the melting of ice in table 3 was surpassed. Comparing it to 2005, you can see just how severe the ice degradation is. This resulted in a massive increase in maritime traffic, which would ultimately result in an Arctic Ministerial Summit on SAR in 2009.¹³ Watching the trend of accidents in the Arctic increase as sea ice extent increased has many nations worried. Especially as *Crystal Serenity*, the first cruise ship to traverse in the Arctic in decades, sets off in 2017 with civilians on board.¹⁴

State of the Arctic, Incidents, Search and Rescue – 2011

2011 was a very important year for SAR development in the Arctic. The Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic was signed by each Arctic nation in the Arctic Council. Following 2007, with the rapid melting of ice in the Arctic and Al Gore's "An Inconvenient Truth", Arctic awareness began to explode.¹⁵ This SAR agreement was the first binding agreement by the Arctic Council and marked a new era of cooperation in the Arctic. Despite this, maritime traffic continued to increase and, while

accidents in the Arctic took a slight dip, that number didn't stay low for long. Table 4 shows sea ice extent in the Arctic in 2011. Notice ice extent has slightly recovered compared to 2007, but ice concentration remains virtually unchanged. In 2012, that sea ice extent would drop significantly once again, further promoting maritime trade and development.

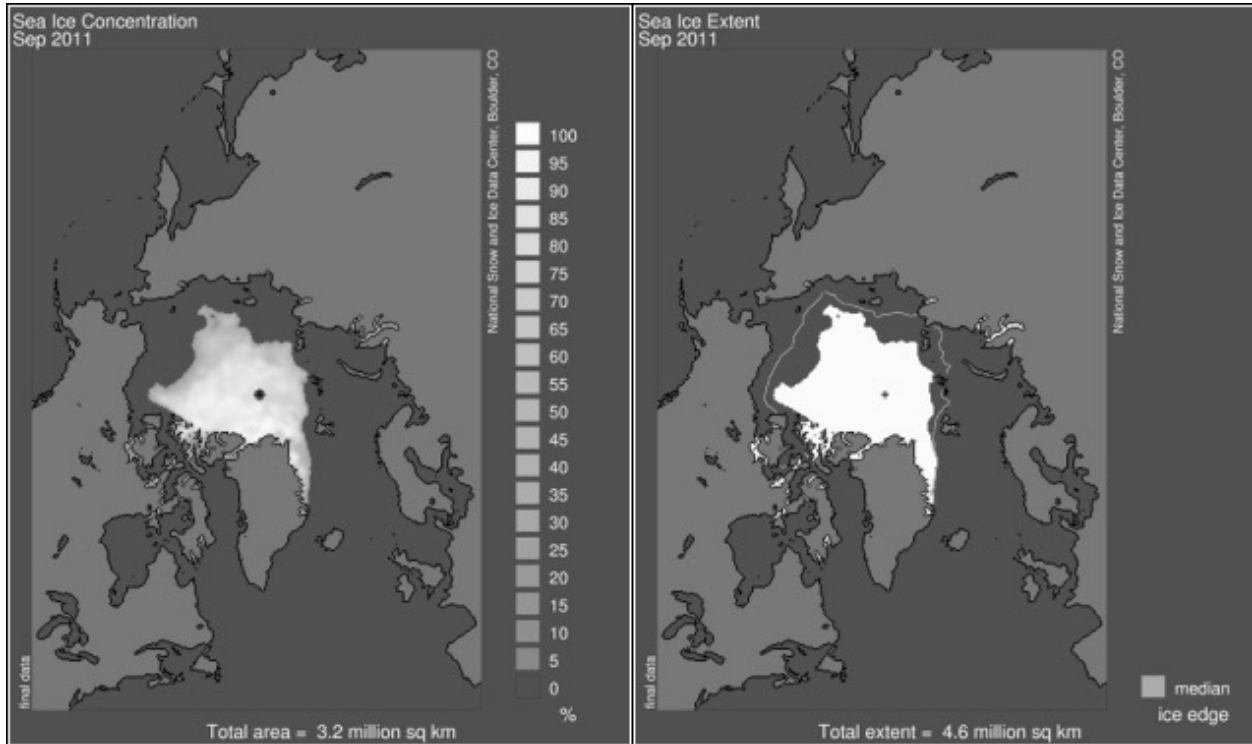


Table 4. ¹⁶

State of the Arctic, Incidents, Search and Rescue - 2014 and Beyond

In 2014, Arctic cooperation had an unexpected setback. In the spring of 2014, Russia invaded Ukraine with hopes of annexing Crimea. In its success, much of the international community, including each of the Arctic nations, placed heavy economic sanctions on Russia. This has prevented Russian officials from attending Arctic Council meetings, has halted SAR development in the Arctic, and has frozen Arctic cooperation. In 2015, maritime accidents hit an all-time high, further highlighting the need for the Arctic Council to address this issue. Now that the United States has chairmanship of the Arctic Council, it is essential to address the tension of the international community towards Russia, solve each dispute diplomatically, and restore cooperation in the Arctic. While this won't be solved in the short two years that the United States is chair, setting the foundation for Finland to build upon is essential.

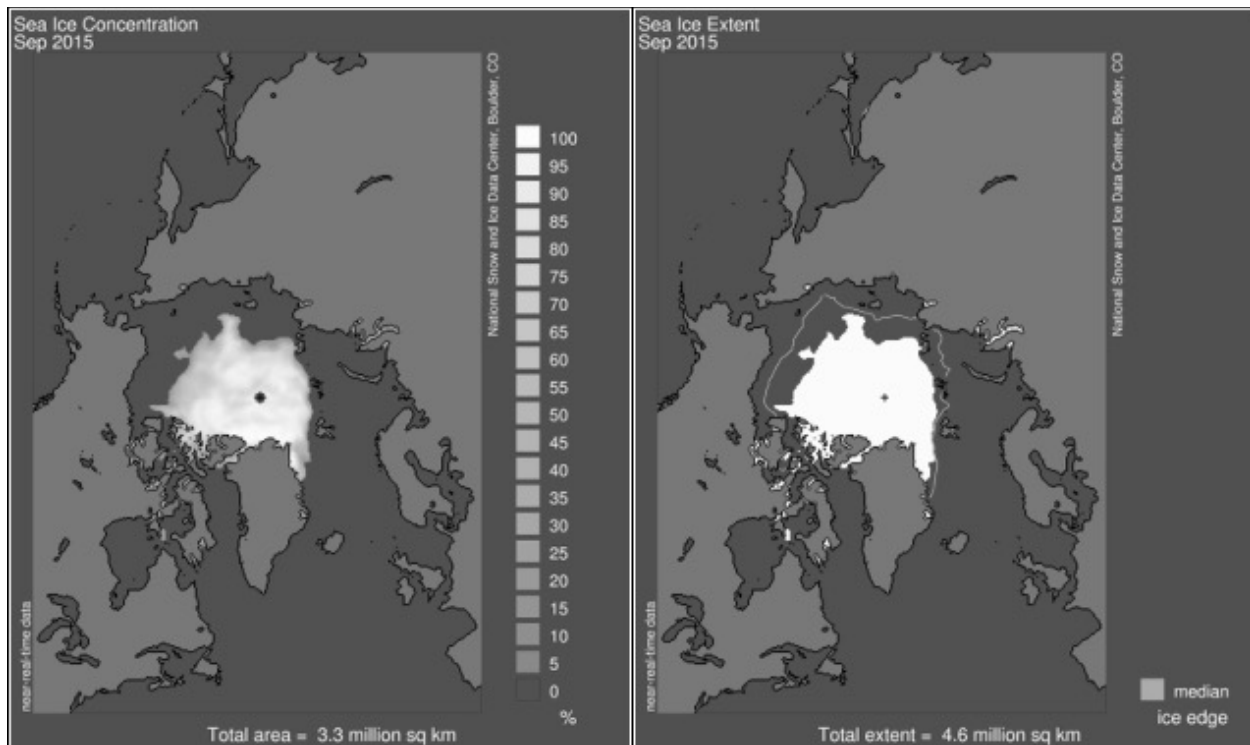


Table 5. 17

III. The Pillars of the United States Arctic Chairmanship

Now that the chairmanship of the Arctic Council is in the hands of the United States, four major concerns have been highlighted. These concerns serve as the pillars of the US chairmanship of the Arctic. Among these pillars include: The Arctic Ocean, Arctic Communities, Arctic Climate, and Arctic Awareness. None of these pillars are unprecedented, however, the United States has a unique approach to each concern.

According to the chairmanship brochure, disseminated on the Arctic Council website, the United States, specifically under the Arctic Ocean pillar, it states that the increase in human maritime activity in the Arctic has caused an increased effort to promote security in the Arctic. It lists areas of interest such as SAR cooperation, oil pollution preparedness, marine protected areas, and addresses concerns of increased ocean acidification.¹⁸ This highlights not only the need for increased SAR capability, but also the need for a scientific cooperation to reverse the effects of acidification on marine species in the Arctic. Considering that Russia controls about forty percent of the Arctic's coastline, cooperation for marine protected areas in a shifting geopolitical region will be a challenge.

Next, the US chairmanship brochure emphasizes the need for protection of Arctic communities. As climate in the Arctic continues to warm at a rapid pace, many villages, towns, and cities will need to relocate or dramatically change their infrastructure to accommodate. The brochure recognizes the effects of climate change on Arctic communities highlighting coastal erosion and thawing permafrost as its major concerns. It speaks to the idea of improving living conditions through food, energy, and water security while promoting mental wellness to counter high suicide rates. Finally, it talks about maritime navigation and emergency response activities to help with this development.¹⁹ With coastal erosion and melting permafrost, many communities will be forced to relocate. SAR will be a top priority to ensure the safety of these communities in the future. While the Inuit of Canada's northern region and the Sami of Scandinavia have a large voice, many communities in Northern Siberia do not. Reaching out to Russia and the indigenous communities within it to promote human rights in these regions is key to ensuring their safety as well.

On a final note of the US chairmanship brochure, it strives to promote Arctic awareness, the fact that everyone should be educated on the Arctic because it affects the world equally. It recognizes the diversity of the region and the need for raised awareness of the Arctic. Understanding the role the Arctic plays in the global ocean and climate systems should be important to everyone.²⁰ Not only is this essential to the future leaders of the world, this is essential to raising the necessary funds to promote SAR efforts and safety overall in the Arctic during its development.

IV. U.S. Chairmanship and Arctic Doctrine Paradox

Contrary to the pillars of the US chairmanship of the Arctic Council, the US Arctic Doctrine paints a whole different picture entirely. According to a report issued by Valdai Club, a think tank whose goal is to promote dialogue between Russia and the international intellectual elite, it states, "Based on recent U.S. Arctic doctrine (National Strategy for the Arctic Region 2013; U.S. Department of Defense 2013), American interests in the region can be divided into several groups. First, it has military-strategic interests, including missile defense and early warning systems; deployment of sea and air systems for strategic sealift; strategic deterrence; maritime presence and maritime security operations; and ensuring freedom of navigation and overflight."²¹ The only military concern in the Arctic for the United States is Russia, who is deeply embedded in economic sanctions affecting cooperation entirely. This will be a challenge for the

chairmanship of the Arctic Council to balance national security interests with Arctic cooperation. Another concern is freedom of navigation. The United States has not ratified the United Nations Law of the Sea, which lays the framework for a lot of maritime law, not just in the Arctic. With active disputes on the territorial sovereignty of the Northwest Passage between Arctic nations and Canada, this will challenge the development of SAR cooperation across all regions of the Arctic Ocean.

In addition to the Valdai statement of the conflicts of US Arctic doctrine and Russian relations, it highlights a key issue that has put Arctic nations at odds for decades. It states that the complexities of Arctic issues between the United States and Russia are vast. Specifically regarding the Northeastern Sea Route as international waters. This would impact Russia economically and force Russia to react as their strategic and military vulnerability increases as a result.²² This not only highlights a huge challenge for the Arctic Council, it shows an overarching paradox of cooperation in the Arctic. Russia, whose economy is crippling and continues to increase military presence across all of Russia, will be hesitant to open up the Northern Sea Route to countries who have put its economy in the state it is in the first place. The international community will find it difficult to solve this issue diplomatically. As a result, many of the facilities planned to be built, such as the ten SAR facilities along the Northern Sea Route, have not been completed.²³

On a final note of the Valdai report, it concludes speaking to the future of Arctic relations between the United States and Russia. It states that the relations between the United States and Russia in the Arctic are unpredictable. Many factors will be involved in identifying the current state of Russia-United States affairs. One example is the general mood of affairs, which are drastically impacted by domestic or international crisis. Another is the ongoing Ukrainian crisis, causing economic sanctions from many Arctic nations. Finally, the conflicting Arctic doctrines dissuade each country from effectively cooperating in the Arctic.²⁴ The ongoing military aggression by Russia has led to the economic sanctions that have hindered Arctic cooperation since 2014. The crippling Russian economy has forced it into the hands of Asian countries, which seek and are granted investment opportunities in the Arctic.²⁵ Many Asian countries, China in particular, do not share the same geopolitical views as Arctic nations, specifically the pillars highlighted in the US chairmanship of the Arctic Council. These include the safety and rights of Indigenous people in the Arctic, climate change, and will further complicate cooperation in the Arctic as more parties enter the sphere of influence.²⁶

V. Search and Rescue, Trends, and Geopolitics

The Congressional Research Service, who recently wrote an entire report on changes in the Arctic, goes into detail on SAR. In their report “Changes in the Arctic: Background and Issues for Congress”, writes specifically about the Arctic Council and the US-Russia relations regarding SAR at a previous Arctic Council ministerial summit. It recognizes the importance of the aeronautical and maritime search and rescue agreement, mainly between the US and Russia, and the following secretariat that would be established in Tromso, Norway.²⁷ Keep in mind; this agreement was signed long before Asian observers were introduced into the Arctic and before economic sanctions were imposed following the Ukraine Crisis in 2014.

What we are seeing is a degradation of Arctic relations between Russia and all other Arctic States and permanent observers. Not only does this hurt cooperation in the Arctic, it further complicates it. Russia's recent activity in Crimea and Ukraine, followed by its hotheaded approach in Syria, shows a rather expansionist mindset delivered by Vladimir Putin, representing Russia's foreign policy. As a result, the European Union, who also placed sanctions on Russia, is having difficulties becoming a permanent observer. Tension between the EU and Russia has prevented Russia from voting on the EU's behalf.²⁸

As a final note on the Congressional Research Service's report, it states that cooperation in the Arctic may continue to have setbacks if Russia retains an expansionist mindset, specifically in the Arctic.²⁹ This illuminates a fear that unfortunately came true with Russian interest in Ukraine, Syria, and a military revival of the Arctic.

VI. The Arctic Coast Guard Forum and Future of Search and Rescue

One of the primary issues in the Arctic, specifically with search and rescue, is the inability for armed forces to interact in the Arctic. Outlined in sanctions against Russia is a ban for any armed force to make contact with Russia's military. Due to the lack of uniformity in SAR across the globe, many countries still rely on their armed forces to conduct rescue operations. Table 7 shows each Arctic nation and their respective SAR counterparts.

| Country | Name | Organization | Civilian / Military |
|-------------------|-----------------------------------|------------------------------------|---------------------|
| USA | United States Coast Guard (USCG) | Department of Homeland Security | Semi-military* |
| Canada | Canadian Coast Guard (CCG) | Department of Fisheries and Oceans | Civilian |
| Denmark/Greenland | Søværnet (1. eskadre) | Royal Danish Navy | Military |
| Norway | Kystvakten | Royal Norwegian Navy | Military |
| Sweden | Kustbevakningen | Ministry of Defence | Civilian |
| Iceland | Landhelgisgæsla | Ministry of Justice | Semi-military |
| Finland | Rajavartiolaitos | Ministry of the Interior | Semi-military |
| Russia | Coast Guard of the Border Service | Federal Security Service (FSB) | Semi-military |

Table: Organizations with responsibility for coast guard tasks and associated institutional structures (simplified).

* The USCG is part of the US Armed Forces. Yet, it is dissimilar from the Navy and the Danish/Norwegian counterparts operating under Navy structures. As such, goes into the category of 'semi-military', a category broad in scope, which entail military attributes/affiliation, yet operating distinct from the military in peacetime.

Table 7. ³⁰

Because many countries' SAR responsibilities are still military or semi-military, creating a balanced standard for cooperation in the Arctic is difficult. As a result, last November, the Arctic Coast Guard Forum (ACGF) was officially established at the US Coast Guard Academy in Connecticut.³¹

The structure is simple, In tandem with the Arctic Council, there will be a rotating chair that will help facilitate Arctic SAR exercises and help avoid bureaucratic involvement. It will serve as a bridge between the Arctic Council's Emergency Prevention, Preparedness & Response working group and the SAR assets of each Arctic nation.

While there is great optimism and the solution seems relatively simple, getting Russia to participate may prove to be the greatest challenge. So far, Russian integration into the forum has not gotten off to a good start. Many obstacles, such as the sharing of sensitive information between the US, NATO, and Russia is nearly impossible. The ACGF is limited by current political instability and its future rests in a diplomatic resolution between Russia and Arctic nations. It appears the ACGF is more of a long-term solution, one that may never get off the ground.³²

The future of Arctic affairs is clear: put Russia on the same page as the Arctic nations and the international community, remove Arctic-related sanctions and promote sustainable

development, or deal with the repercussions of a complex Arctic with many geopolitical actors outside of the Arctic Circle. This is an obstacle that will not be overcome in just two short years of US chairmanship of the Arctic Council. As time progresses and the torch begins to pass to Finland, setting up the foundation for increased cooperation in the Arctic is essential. Just on the horizon, the first cruise ship in decades, *Crystal Serenity*, will attempt to travel through the Northwest Passage with civilians on board. Now, more than ever, is cooperation in the Arctic essential. Whether the future lies in the hands of the ACGF and the pooling of icebreakers and SAR assets remains to be seen.

VII. Finland's Future Chairmanship

Finland is set to receive the chairmanship of the Arctic Council in 2017. As the Arctic begins to open up for economic and scientific development, it will grow more complex with far more interested parties. If sanctions on Russia continue, Finland will have to cope with the difficulties of Arctic affairs resulting from this. The introduction of five Asian observer countries will further complicate Arctic development. With many different parties interested in resource extraction, fishing, and maritime trade, projecting the future pillars of the Arctic Council may prove difficult for Finland. As the leading producer of world-class icebreakers, Finland holds the ability to provide a unique contribution to a potential solution not only as the future chair of the Arctic Council, but also the ACGF.



*Finnish Icebreaker moored*³³

VIII. Policy Recommendations

1. Relieve economic sanctions on Russia regarding Arctic economic development, resource extraction, and travel for Russian officials in the Arctic Council. Creating a strong cooperation between Russia and other Arctic nations heavily relies on Russia's security of their exclusive economic zone. The Arctic Doctrine of the United States will need a critical review in order to make tensions fall.
2. Develop more specific guidelines to continue observer status in the Arctic Council, specifically on indigenous rights, climate change, and environmental security. Many new observers, specifically China, do not share the same values as current Arctic nations. With current geopolitical instability and sanctions, Russia is granting many Asian countries exclusivity to resource extraction and infrastructure development. This will lead to confrontation in future development of the Arctic.
3. Craft policy incentivizing Russia to integrate into the ACGF. The ACGF, in tandem with the Council and its working groups, is the future of cooperation in the Arctic. With maritime activity at an all-time high, this integration must be timely and efficient solutions must be made quickly.

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PART V.

CHAPTER 11

REFORMATION OF THE ARCTIC COUNCIL: THE CHANGING GLOBAL DYNAMICS OF THE NORTH

By Ivalene Laohajaratsang

“We should be proud of our Arctic Council...Proud, but not satisfied. The challenges ahead of us are greater than ever before.” – Kristina Persson, *Minister for Strategic Development and Nordic Cooperation (Sweden)*

Abstract

The non-binding nature of the Arctic Council has proven to be both beneficial and counterproductive to the efficiency of the Council itself. Significant research findings and policy recommendations are constantly published on behalf of the Arctic Council, yet the implementations of these recommendations have been minimal in comparison to the number of publications. There exists a paradox within this situation in that these research findings and policy recommendations are of high quality due to the absence of political restraints, yet this exact characteristic is what prevents effective implementation of these policies on a domestic level. The non-binding aspect, however, is merely a single issue among numerous others within the structure and organization of the Arctic Council. This final chapter will discuss major inadequacies of the Arctic Council including its lack of coordination in regards to management, its lack of enforcement mechanisms, the issue of insufficient Indigenous capacity, and the apparent disconnection between policy recommendations and implementations. All of these factors ultimately limit the Council's ability to effectively solve pressing Arctic issues. This chapter will attempt to substantiate how and why reformation of the Council, specifically in regards to these issues, is necessary in order to enable the Arctic Council to bring forth meaningful changes and achieve their founding missions moving forward in anticipation of its twentieth anniversary.

I. Introduction

After the signing of the Ottawa Declaration in 1996, the Arctic Council was established with a simple mission: “To provide a means for promoting cooperation, coordination and interaction among the Arctic States, with the involvement of the Arctic Indigenous communities...on common Arctic issues,” emphasizing that it, “Should not deal with matters related to military security” and that the term “Peoples” used in the declaration does not implicate any rights attached to the term under international law.¹ Twenty years later, however, socio-economic and political circumstances have drastically changed compared to the world dynamics at the time of the establishment of the Arctic Council. Gradually, the question of the Arctic Council's inability to deal with current issues in the Arctic has become the topic of discussion among the

international community of scholars. It must be made clear, nonetheless, that this disconnection is in no way a failure of the Arctic Council. Rather, the institution was established under different socio-political and economic circumstances with different goals and missions, but the shifting world dynamics dictate other roles upon the Arctic Council beyond what the Council had originally set out for. Thus, in order to be able to successfully fulfill the original goals and missions, the Council now needs to reform itself in order to adapt to the constantly changing geopolitics. Four key issues discussed in this chapter that could be integral to strengthening the Arctic Council include the lack of enforcement mechanisms, lack of coordination of management, disconnection between policy recommendations and implementations, and the limited capacity of Indigenous representation within the Arctic Council. Ultimately, this chapter will seek to understand and answer how the influence and efficiency of the Arctic Council can be strengthened through structural changes to adapt to the changing issues in the North.

II. Background

As aforementioned, the socio-political and economic circumstances during the establishment of the Arctic Council in 1996 influenced the structure of the institution. As explained in previous chapters on security, different factors such as the tension from the Cold War has impacted the extent of power the Arctic Council has had on domestic policies, especially in regards to sensitive political issues such as security and sovereignty. Thus, establishing the Arctic Council as a non-binding international forum focusing on environmental issues with an emphasis on its non-involvement with security and military aspects was a logical option considering these factors. Today, however, these issues have become so intertwined that they are no longer considered as separate entities. Instead, environmental impacts have led to increased security concerns requiring collaborative military efforts and strategies. Although acknowledging the shifting geopolitical factors, changes made by the Arctic Council to keep up with the shifting world dynamics are still insufficient and there remains room for structural adjustments that would strengthen the Council's influence and performance.² As stated by the United States as part of its goal during its chairmanship, the Arctic Council wishes to "Continue strengthening [itself] as an intergovernmental forum," yet there is no mention on specific approach regarding how this goal is to be achieved.³ The lack of clear direction can also be observed in the ambiguous role of Observer status as well. Although the admittance of other countries and advocacy groups to the Arctic Council as Observers are generally encouraged by Member States, there has been a lot of debate regarding the extent of influence these Observers should have on the Council.

In addition to a general lack of structural adjustments made by the Council in response to the changing geopolitical dynamics, the adjustments that they did make were usually of unplanned and incoherent manner.⁴ This problem is also somewhat acknowledged by the Council itself in a report presented during the SAO meeting in 2015. The report recognizes that the “Council faces a number of key challenges managing and funding the work and ensuring the effectiveness of its recommendations,” along with the growing and evolving workload since the Council's establishment, alluding to challenges with the organizational structure of the Council itself. In particular, a number of working group chairs have expressed concern regarding the overlapping mandates as this leads to the inefficiency in executing their assigned tasks.⁵ Furthermore, there has also been an increase reliance on the use of task force groups as a mean to address emerging Arctic issues in lieu of traditional working groups. Although task forces are useful in providing specific knowledge and expertise to solve issues within a limited timeframe, they often take away human and financial resources designated for working groups, thus slowing down the progress of projects initiated by the working groups.

III. Lack of Coordination in Management

Coordination of management refers to a collaborative effort by Member States to ensure continuity in policy implementation and prioritization in dealing with Arctic issues. As the responsibilities and workload of the Arctic Council increase, the insufficient coordination of management starts to become detrimental to the efficiency of the Council. A joint memorandum of a multilateral audit report on the Arctic Council co-published by the Supreme Audit Institutions of Denmark, Norway, the Russian Federation, Sweden, and the United States of America links challenges for the working groups in prioritizing their work to the lack of coordination in management between the Member States.⁶ Although the development of *Tracking Tool for Arctic Council Deliverables and Ongoing Work* under the Canadian Chairmanship provides a mean to track the general progress of assigned projects, it does not specify a guideline on which projects should be prioritized. With the lack of guidelines and coordination in management, competition for resources and expertise may occur. Furthermore, the biennial Ministerial Declarations and rotation of Chairmanship may seem effective in identifying immediate key priority issues during the two years term, but in actuality, the Council faces a challenge in properly channeling economic resources and research experts as the Council lacks a strategy to identify project priorities over a long-term period.

Arguably, a major contributor to this issue could simply be the differences in social, economic, and political realities across the Arctic Nations and Indigenous communities. For instance, as exemplified earlier in this report, the issue of mental health wellness poses as a bigger threat in some Arctic Nations than it does in others. This fact is then reflected in the differing presences of the issue within each of the individual Member States' national policies on the Arctic. Undoubtedly, without a sufficient collaborative management mechanism, the priority issues on national policies will influence each Member States' position on their perceptions of what the focus of the Arctic Council should be. In other words, the lack of co-management guidelines may lead to a conflict of interests in terms of prioritizing issues within the Council. In addition to a lack of identification of long-term project priority, the rotating biennial Chairmanship might also slow down the progress of the short-term projects because of this conflict of interests as well. For instance, although there has been some progress in mental health wellness programs under the U.S. Chairmanship, the continuity of this progress could possibly be put in jeopardy as Finland, who is taking over the Chairmanship in 2017, identifies mental health as less of a priority as the issue poses as less of a threat to their domestic Indigenous population.

Furthermore, increased coordination in management can also potentially lead to increased influence and efficiency of the Arctic Council as a whole as well. In Svein Vigeland Rottem's peer-reviewed article, *A Note on the Arctic Council Agreements*, the author explored the two binding agreements, the *Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic* and the *Agreement on Cooperation on Maritime Oil Pollution Preparedness and Response in the Arctic*, made by the Arctic Council. Ultimately, besides the significance of these agreements in terms of future implications for a shift toward a more binding governmental entity, the agreements reflect the importance of collaborative efforts between Member States in regulating and ensuring the progress of projects and other works by the Arctic Council. Additionally, the issues addressed in these two agreements also appear to be issues of concern for all Arctic Nations.⁷ This observation reiterates the earlier argument regarding the existing conflict of interests in terms of prioritizing Arctic issues that each Member State views as most significant, and implies that perhaps, an increase in coordination of management is founded on a common perception on which issues must be prioritized.

It is important to note, however, that the current organizational structure of the Arctic Council is built upon the foundation of collaboration. The rules of procedure agreed upon at the establishment of the Council include a key aspect that all decisions are to be made by consensus.⁸ This basis provides a strong foundation in which increased coordination can easily

be developed upon. Furthermore, Member States have also voiced their support for increased co-management efforts, which provides positive implications for the future as well. Canada's "Arctic Foreign Policy" published in 2009 emphasizes the Council's role as the key forum for international collaboration on Arctic affairs, and states its commitment to strengthen this forum. A similar view and commitment is also reflected other Member States' foreign policies on the Arctic, including the United States' 2013 *Arctic Strategy*. Russia has also issued several Arctic strategy documents, emphasizing the importance of the Council as an international forum that facilitates cooperation, while Denmark has expressed their hope for the Council to become a "decision-making organization".⁹ Evidently, there is a general support for increased coordination in management, and the existing institutional structure of the Arctic Council also provides room for further development in this regards. A multilateral audit published by the Council shows the Member States' acknowledgement for the need for increased cooperation in the region, especially in response to changes related to environmental impacts and potential economic development.¹⁰ In reality, however, there is still a lack of initiatives towards this collaboration, as apparent in the lack of alterations in operational conditions outlined by the two binding agreements and the lack of enthusiasm in creating more legally binding agreements within the Council itself.

IV. Lack of Enforcement Mechanisms

The lack of enforcement mechanisms within the structure of the Council includes, but is not limited to, the non-binding nature of the institution. Policy recommendations published by the Arctic Council are merely guidelines and recommendations for the Member States' domestic policies on the Arctic, but it lacks the power to ensure these guidelines are being followed or imposed. It could be argued that there exists a paradox in this issue in that the research findings and policies recommendations produced by the Council are of such impeccable qualities due to this lack of enforcement mechanisms, but it is this exact characteristic that limits the influence and efficiency of the Council in dealing with important Arctic issues.

Enforcement mechanisms, however, do not necessary translate to tangible structural adjustments. As explained by Christoph Humrich, management mechanisms within the Arctic Council may take two forms: regulatory or enabling coordination.¹¹ Regulatory, in this case, refers to the conventional enforcement mechanisms such as binding treaties. This option, although proven effective, as it is legally mandatory, might be difficult to achieve considering that the Arctic Council was able to establish and develop to what it is today on the basis of

voluntary participation. Enabling mode, on the contrary, relies on communication, persuasion, and capacity building as a mean of enforcement.¹² This option seems more viable in the short-run as it simply promotes increased existing collaborative efforts rather than making tangible structural adjustments. Oran Young has expressed similar stance regarding the limitations of a regulatory coordination, explaining that, "Legally binding treaties have a number of limitations as mechanisms for providing effective governance for complex and dynamic systems that are apt to experience non-linear and abrupt changes that have important implications for efforts to meet the demand for governance."¹³ These limitations include the need for protracted negotiations to reach agreement on their principal provisions, the restraint of dealing with issue with contentious nature in building consensus, the unfeasibility of legally binding treaties in adapting to changing circumstances, and the limited roles of non-states actors, particularly the Indigenous Participants in the implementation of legal agreements and treaties.¹⁴ Young, however, also provides acknowledgements that all these limitations can be overcome through careful planning. Although this might be the case, considering the growing influence of non-state actors, traditional diplomatic practices might no longer be effective in assuming and maintaining supremacy over Arctic issues.¹⁵ Evidently, it appears to be more practical to pursue applications of enforcement mechanisms through increasing existing arrangements rather than advocating for a structural adjustment of the Council towards a legally binding government entity.

As mentioned in the earlier section, there has been a development on a progress-tracking system such as the *Tracking Tool for Arctic Council Deliverables and Ongoing Work* created under the Canadian Chairmanship. Although still in its early stage, tracking tools such as this can be considered a significant step towards improving enforcement mechanisms within the structure.

V. Disconnection Between Policy & Practice

Although the lack of enforcement mechanisms limits the influence of the Arctic Council, it is undeniable that it also allows for impeccable quality research findings and policy recommendations in absence of political restraints. There exists a paradox within this observation in that the lack of enforcement allows for high-quality findings and recommendations, but at the same time these data are not being implemented or utilized to their full potential due to this same aspect.

According to a report to congressional requesters published by United States Government Accountability Office, only a mere number of thirty-nine statements in the declarations issued from 1996 to 2013, over a period of fifteen years, were identified as recommendations to the Arctic states by the State officials.¹⁶ This number is considerably low, in comparison to the numbers of policy research findings published by working groups and task forces during that time period. In addition to the diminutive number, the identified statements are extremely broad, and do not include specific guidelines on the process of implementation itself. State officials identify this lack of specific guidelines as an obstacle to effectively implement research findings.¹⁷ Furthermore, the report specifically notes that the State is not responsible for the imposition of recommended policies. Rather, the State relies on other agencies, but these agencies often lack the means to review and track the progress of overall implementation.¹⁸ The agencies also claim to face challenges implementing policies as they feel that they do not have a clear enough direction or specific resources for their work.¹⁹

Despite not being under direct responsibility of the State to ensure policy implementations, it would still be practical for the State to follow up with the agencies under their authority. In practice, however, State does not review or track agencies' progress on implementation of policy recommendations and research findings. State officials explain that agencies meet monthly at interagency Arctic Policy Group meetings to informally discuss progress on projects and other policy implementations, but the State does not attend nor get involved in this process. Several senior agency officials explain this lack of commitment to the fact that the United States does not consider the Arctic Council to be of high-priority, although they assert that the U.S. Chairmanship in 2015-2017 will change this.²⁰ Moreover, Arctic States claim to face challenges putting recommendations into practice, as they believe these recommendations were written as a mean to provide a mechanism to strengthen the Council's ability to address Arctic issues as a whole without considerations of Member States' individual domestic capacities. State officials also express their concern regarding the amount of recommendations produced by working groups and task forces; they feel that these recommendations are too numerous that it becomes challenging to implement all of them. The U.S. Government Accountability Office estimates 10-20 recommendations on average for reports and assessments produced by task forces and working groups. In regards to this issue, senior officials advise the working groups and task forces to specify priority recommendations in order to facilitate implementation.²¹

This also leads to an overlap between Arctic Council's policy recommendations and existing domestic policies dealing with similar issues. For instance, guidelines developed by the Council

for offshore oil and gas development reflect some of the policies already practiced by the United States' domestic law.²² Although it is a positive sign that important issues are being addressed domestically, it might also be seen as an inefficient use of resource allocation on the Council's part as resources could have been spent addressing issues that are underdeveloped.

In regards to resource allocation, disconnection between policy recommendations and implementation is also further widened by the organizational structure of the Arctic Council itself. Currently, there is a lack of effective financing mechanisms within the Council.²³ All of the Council's operations and projects are funded on a voluntary basis by Member States or by grants. Working groups have expressed their concerns towards this system as they feel the lack of central funding creates unnecessary inefficiency. For instance, projects with lower priority might be executed prior to more important issues simply due to the financial and resource misallocation, or initiation of significant projects might be delayed or even halted simply due to the lack of funding. Although the Arctic Council introduced a financing mechanism, the Project Support Instrument (PSI), in 2003 in response to this issue, the lack of financial contributions have delayed the implementation of this system until 2014, and funding of the PSI itself remains voluntary. Additionally, there is also a lack of tracking system to account for the Council's spending, with the exception of the finances of the Permanent Secretariat. The Council does not keep accounts for any of its direct and indirect operational costs or funding for various projects.²⁴ Despite the fact that a finance tracking system was initiated under the Canadian Chairmanship, it is still in its early stage of development, and the advancement of this tracking system does not appear to be a current priority for the Arctic Council under the U.S. Chairmanship.

Certain Member States have also acknowledged this limitation of the Arctic Council on policy implementation and expressed their hope for a more political influential Council. In a report published by in 2013 titled "Vision for the Arctic," all Member States along with the six Permanent Participants state their wish of seeing the Arctic Council expand its role from merely policy-shaping to policy-making.²⁵ As mentioned earlier, Denmark has also hoped for the Council to become a "decision-making organization" as well.²⁶ Despite the existing limitations, the Council can still play a positive role by enhancing common understanding among stakeholders to promote international cooperation.²⁷ Similar to the other issues discussed previously, the use of hard law, such as simply ensuring policy implementation through legal obligations, might not be politically feasible. Thus, promoting existing aspects of the Council such as further develop

projects tracking tools or financial accountability system that are already initiated is a valuable step towards bridging the gap between policy recommendations and their implementations.

VI. Limited Capacity of Indigenous Representation

The signing of the Ottawa Declaration in 1996 marks the official establishment of the Arctic Council, the first intergovernmental forum to include Indigenous representatives as Permanent Participants. This status entails “Full consultation rights in connection with the Council's negotiations and decisions.” The Council's main missions, as written in the Declaration, includes “Affirming [the Council's] commitment to the well-being of the inhabitants of the Arctic,” “Recognizing the traditional knowledge of the indigenous people of the Arctic and their communities and taking note of its importance and that of Arctic science and research to the collective understanding of the circumpolar Arctic,” and “Desiring further to provide a means for promoting cooperative activities to address Arctic issues requiring circumpolar cooperation, and to ensure full consultation with and the involvement of indigenous people and their communities and other inhabitants of the Arctic in such activities.”²⁸ Evidently, the well being of the Indigenous population and their participation is considered an integral aspect of the core values of the Arctic Council. To this day, however, the Permanent Participants still struggle with limited capacity to fully represent and engage in the Council's various activities.²⁹

During the Ninth Ministerial Meeting in 2015 in Iqaluit, Ms. Áile Javo, the President of the Saami Council stated that the Permanent Participants capacity to keep up with priority issues of the Arctic Council is challenged as workload of the Council steadily increases. Ms. Javo also asked the Member States to fulfill their responsibility of ensuring adequate funding for the Permanent Participants, asserting that a “Well-functioning and operative organizations at home” is needed for meaningful contributions in the role of Participants.³⁰ The multilateral audit report mentioned previously also shows the Arctic Council's acknowledgement of this limitation, specifically addressing the issue of funding for the Permanent Participants. Currently, although the Council emphasizes the importance of indigenous knowledge and participation, there is no mechanism to ensure the Indigenous groups have adequate funding. The report also foresees limited Indigenous capacity becoming even more of a challenge in the future as the Arctic Council expands and broadens its work, requiring more participation from the Permanent Participants.³¹

According to the book, *The Arctic Council*, published in 2015, there is also tension that exists between differing perceptions of the exact role each constituent plays on the Arctic Council.³²

Although acknowledging the significance of including Indigenous groups and granting them full consultation rights as Permanent Participants of the Arctic Council, the Member States believe that they are the primary decision makers for the Council and for the Arctic region as a whole. As formal representatives of sovereign states, the Member States claim to "Speak for the peoples of the region and to act on their behalf in all matters related to their domestic and external needs."³³ On the contrary, the Permanent Participants believe that their representation in decision-making on Arctic issues is just as valid and central as the Member States'. They can also technically argue for a primary position of inclusion on the basis of existing international law such as the UN Declaration of Human Rights and Declaration of the Rights of Indigenous Peoples as well.³⁴ These contrasting perceptions could potentially explain the lack of Member States' commitment to addressing the issue of limited capacity of Indigenous representation.

Furthermore, even if the issue of insufficient funding for the Permanent Participants is generally acknowledged by the Arctic Council in their reports, there appears to be little to minimal acceptance by the individual Member States that the problem of Indigenous underrepresentation exists. For instance, Canada was commended for appointing an Indigenous woman, Leona Aglukkaq, as the chair and minister of the Arctic Council during their Chairmanship in 2013, and this was considered a vital progress in Indigenous representation. However, it is important to note that although Aglukkaq is of Indigenous heritage, her position as Chair of the Arctic Council was representative of Canada's interests, and not of the Indigenous groups'. When questioned whether or not there is a possibility of the Permanent Participant groups eventually becoming the Chair of the Arctic Council in the future as a way to promote increased Indigenous influence and representation, most government officials deliberate that the position of Chair is, and should be, exclusively reserved for State representatives.³⁵ This response supports the notion that although the Permanent Participants have the same consultation rights and are assumed to be of equal status as the Member States, reality reflects otherwise.

Interviews with various Indigenous representatives also indicate that perceptions on various Arctic issues, ranging from economic development to environmental protection programs, differ between the Northern inhabitants and policymakers.³⁶ Thus, adequate Indigenous representation is vital for the Council to bring forth meaningful changes to the community. If the Arctic Council was to stay true to its core value of prioritizing the lives and interests of Indigenous communities, it needs to ensure that the Indigenous voice is being adequately represented especially in regards to decisions that will directly affect their livelihoods and wellbeing.

VII. Policy Recommendations & Concluding Remarks

1. Increase coordination of management by creating a system to identify common priority issues between all Member States and Permanent Participants. The Council should also ensure this consensus on common priorities is properly conveyed to working groups and task forces. There should also be increased communication between working groups to avoid possible an overlap of responsibilities.
2. Create an efficient and effective tracking system to check on the progress of projects and research assigned to working groups and task forces as a mean of enforcement mechanism.
3. Ensure sufficient funding to increase indigenous participation capacity within the Arctic Council. Instead of it being each individual nation-state's responsibility to fund each indigenous participant organization within their border, there should be a central fund set aside by Council that is directly given to the permanent participants.
4. Include regional governments as part of the Arctic Council. This will somewhat bridge the gap between differing perceptions on various topics regarding policies on Arctic issues. In addition to adding to indigenous representation within the council, the inclusion of regional governments can also ensure that policy recommendations are being imposed on a regional level.

In twenty years since its establishment, the Arctic Council has expanded and achieved way beyond what it has originally set out for. This claim is apparent through the increased number of projects, research, and agreements made under the authority of the Council. Again, it must be reiterated that the areas of improvement discussed in this chapter should in no way be considered as failures of the institution. Rather, the shifting world dynamics over the years have dictated new roles and responsibilities upon the Council. Thus, the Arctic Council must now reform itself in order to not only continue to accomplish its original goals and missions, but also to meet these new expectations and efficiently tackle Arctic issues moving forward beyond its twentieth anniversary. It is also important to note that improvement prospects discussed in this chapter are not the only approaches to strengthening the Arctic Council, but rather the ones most often discussed by respected scholars, and somewhat acknowledged by the Arctic Council. As the socio-economic and political dynamics continue to change, the Arctic Council will undeniably be required to adapt to these factors in order to advance its goals and missions to promote international coordination and improve the living conditions of the inhabitants of the North.

NOTES

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- ²⁰ *Ibid.*, 38.
- ²¹ *Ibid.*, 40.
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CONCLUSION

By Jake Creps

Our title, *Putting the Arctic Back on the Map: A Progress Report in Anticipation of the Arctic Council's Twentieth Anniversary*, signifies the prominence and importance that the Arctic Council has placed on the region since its inception twenty years. The Arctic Task Force of 2016, after our short visit to Ottawa, was able to hear the invaluable, unique experiences of experts in Northern affairs. Each member of the Arctic Task Force gained a new perspective that helped guide the writing of his or her chapter. With the assistance of our instructors, Nadine Fabbi and Vince Gallucci, along with various guest speakers, the focus of our selected issues was greatly narrowed and specified. In this report, we aim to identify controversial issues and provide effective policy recommendations for each concern. Through the unity of historical content, expert opinion, and government reporting, we strive to bridge the gap between academia and policy making. Following the writing of this report, we will be presenting our findings to an expert evaluator, Ambassador Kenneth Yalowitz, to solidify our arguments and receive constructive feedback. This work will be archived by the Jackson School of International Studies and used as an example for the Arctic Task Force for years to come.

In Part I of the report, we discussed climate change in the Arctic. Within the theme of climate change, we unpack resource extraction, maritime and terrestrial pollution, and strategies for climate-induced displacement in the Arctic.

Chapter 1, written by Laura Heckenlively, addressed the opportunities and responsibilities of the Arctic Council to help foster sustainable development of resource extraction. She recognizes the relationship between nations and corporations regarding fossil fuels in the Arctic and recommends a much-needed partnership between both players to develop sustainable energy growth in the Arctic. Many issues outlined in this report recognize the lack of an entity to deal with each concern. Laura's suggestion of the development of a task force with a specific focus on environmental regulation for resource extraction sets the tone for a universal theme throughout this report. Finally, understanding the inherent involvement of corporations in the Arctic, she recommends that adequate technology for eco-friendly resource extraction must be available for those corporations to ensure future sustainable growth.

Chapter 2, written by Kelsey Brewster, addressed the mitigation and prevention of black carbon and methane pollution, two of the most harmful pollutants in the Arctic, and the role the Arctic Council plays as a conduit for communication on the issue. Kelsey's report leads to the realization that a specific and binding agreement for Arctic Council members regarding emissions of black carbon and methane must be established in order to create a uniform effort to reverse its effect. She goes on to highlight the need for oversight of economic activity, specifically oil and gas, in the Arctic, ensuring the most state-of-the-art equipment be readily available to corporations operating in the region. Finally, she recognizes the overwhelming dependency that Indigenous communities have on diesel fuel and the need for integration of renewable resources.

Chapter 3, written by Danika Moore, addressed the issue of climate-induced displacement of Indigenous communities in the Arctic and the need for an adaptive strategy for future relocation and infrastructure development. Concluding her report, Danika highlights the need for research funding and public awareness of the issue at hand. To promote proactive, rather than reactive solutions, adequate research is needed. This requires introducing the reality of the issue at hand to the public. She goes on to recognize the issue of legal rights and refugee status of the groups affected by climate change. She suggests that the UN should be ultimately responsible for creating resolution, but the Arctic Council should facilitate communication for nations and Permanent Participants alike. Finally, she outlines the need for an overarching governing body for the relocation process and the associated responsibilities that body will have in order to streamline the process. Among them are establishing timelines, providing funding, and efficient means of sharing information between each party.

In Part II of the report, we discussed the future of the Indigenous communities of the Circumpolar North. Within the theme of Indigenous community, we discuss food security of the Inuit in the North American Arctic, promoting mental wellness and resilience in the Arctic, and the importance of post-secondary education opportunities for Inuit of the North.

Chapter 4, written by Allison Rutz, addressed the growing concern of food security for Inuit of the Arctic. She clearly defines the need for the Arctic Council to create public outreach on a global scale to work with nations of the Arctic Council and Observers alike to create an initiative to promote a more stable food security environment in the Arctic. She goes on to suggest that future Arctic Chairs should make food security their top priority, incorporating it into the main pillars of their Chairmanship. Streamlining the production of infrastructure in the Arctic that can

adequately facilitate regular food delivery in the Arctic across the Circumpolar North is the ultimate goal.

Chapter 5, written by Claire Wang, spearheads the growing concern of mental wellness for the people of the Arctic. Among her recommendations are establishing a realistic impact measurement standard for mental health programs across the Arctic, establishing funding mechanisms for Indigenous communities to establish internal mental wellness programs, and uniting all indigenous groups throughout the circumpolar region to raise awareness and bring each sub-region up to global standards. She highlights the need for the Arctic Council to facilitate the necessary dialogue required to make this a reality.

Chapter 6, written by Elizabeth Castro, tackles the much-anticipated development of post-secondary education in the Arctic. Her focus is primarily on the creation of an Inuit University. Elizabeth shows the current opportunities the Arctic Council has to make an Inuit University a reality and highlights the need for additional research and development as a foundation for future success. She goes on to address the need for representation of students and advocates in Arctic Council meetings to share their wants, needs, and experiences. Finally, Elizabeth represents the desire for a partnership of the currently existing University of the Arctic to update the Arctic Council on collaborations presented by current member universities.

In Part III of the report, we discussed the developing economic and legal structure of the Arctic Council. Along the theme of economic development and the legalities behind it, we break down the biases of Western ideology of economic development, suggesting realistic solutions for the communities of the North that impact quality of life rather than gross domestic product. In addition, we look at the overarching issue of conflicting regulations on maritime trade in the Arctic.

Chapter 7, written by Jordan Habenicht, lays out twenty years of economic development policies in the Far North. He speaks to the need for establishing targeted areas for improvement resulting in tangible development goals. Jordan recognizes the need for diversification of the economy of the North, breaking away from reliance on only natural resources and traditional artisanship. Lastly, he highlights the need to build adequate infrastructure, such as telecommunication, to the foster the growth of entrepreneurship of Indigenous people, promoting internal growth of Arctic economy beyond outsider influence.

Chapter 8, written by Mac Zelle, defines international maritime law concerning the Arctic Ocean. He shows the need for an Arctic Ocean Treaty by creating a parallel between it and the existing Antarctic Treaty. Mac shows the shortcomings of the existing framework governing Arctic maritime affairs and suggests a standardized regulation concerning exclusive economic zones, territorial and international transit passages, maritime environmental regulations, maritime code and standards, and international fish stock management. He recognizes the longevity of planning required to implement this type of treaty realizing this feat is a marathon, not a sprint.

In Part IV of the report, we discussed the recent developments of conflict and cooperation in the Arctic. We lay out, historically, the developments in Arctic doctrine and security in the Arctic following the end of the Cold War to present day, emphasizing Russian affairs as a primary concern. Each chapter reflects the ambition of the Arctic Council to create resolution in the face of dramatically shifting geopolitics.

Chapter 9, written by Kyle Wheeler, takes a look at the Arctic Security dilemma, breaking down regional perspectives. He suggests that much of the tension created in the Arctic is due to many contracting doctrines and decisions made on the behalf of the United States and other Arctic Nations. He emphasizes UNCLOS, the sanctions held on Russia following its military aggression in Ukraine, and the need for an Arctic Security Forum to facilitate communication to ensure Arctic affairs are not jeopardized by the global political situation.

Chapter 10, written by Jake Creps, looks at the controversial topic of search and rescue and cooperation in the Arctic. Collaborating the efforts of the Canadian, American, and future Finnish Chairmanships of the Arctic Council along with the historical data of ship casualties and sea ice extent, he analyzes the correlation between policy, environment, and search and rescue. Jake focuses on the relationship between Russia and the West as the Arctic nations experience a downward trend in Circumpolar cooperation. Using the Arctic Coast Guard Forum as an example, he looks for solutions to reverse the damage done by previous and current administrations.

The final chapter, written by Ivalene Laohajaratsang, concludes our report by analyzing the need for reformation within the Arctic Council to facilitate increased coordination and management. An active theme within Ivalene's chapter is the lack of indigenous participation within the decision making of the Arctic Council. She highlights the need for regional government representation within Indigenous communities and the lack of funding to ensure active participation is present.

She shows the need for improvement on project management on the behalf of the Arctic Council, suggesting the development of efficient and effective tracking systems to check the progress of research and development throughout the Arctic.

The rapid melting of ice in the Arctic region has created global awareness for climate change, sustainable development, and the production of renewable energy. Since the first major melting of the Arctic ice sheet in 2007, many nations, corporations, and organizations are forced to shift their operations not only in the Arctic, but throughout the world. Through the development of effective policy, active representation, research development, and public awareness, the Arctic Council has the ability to shape the future of the planet. As a representation of the Jackson School of International Studies and through the funding of the Carnegie Institute of International Policy, our report promotes the future education of students in the Arctic not only at the University of Washington, but the education of any student seeking to make an impact on the Arctic region. Looking back at the last twenty years of Arctic Council leadership, with proper leadership and guidance, the next twenty years hold endless possibilities for growth and development.

This report, while only discussing a handful of topics of concern in the Arctic, serves as a bridge between the worlds of academia and policy making. Working with regional partners and colleagues around the world, the University of Washington, and the Arctic Task Force in particular, intends to leave a lasting impression on current Arctic affairs and to contribute meaningfully to the current dialogue surrounding Arctic issues.

ABOUT THE AUTHORS

Erika Doane is a student in the University of Washington Honors Program and a graduating senior pursuing her bachelor's degree in International Studies and Spanish. She plans to attend law school in the future and continue her work toward ending educational inequity and other systemic injustices that plague this country.

Laura Heckenlively is originally from Sacramento, California, where she was involved with various philanthropic and environmental clean-up groups that focused along the local American River. She is currently a graduating senior at the University of Washington, majoring in International Studies and minoring in Environmental Science and has been involved with the on-campus student advocacy group to gain student support for environmental policy decisions.

Danika Moore is an International Studies student at the University of Washington, focusing on Environmental Studies. She has a strong interest in human rights, environmental justice, and intercultural communication. She is a Polish-American, grew up mainly in Poland and Italy, and loves learning about different world-views and ways of being through traveling.

Kelsey Brewster is in her last year at the University of Washington majoring in International Studies with an emphasis in Environmental Studies. Her interest in International Studies is a result from living abroad in Germany and Belgium with her family for nine years. After graduation, she hopes to move overseas for some time before pursuing graduate school or a career in international affairs.

Allison Rutz was raised in Central Asia from the time she was five, where she acquired her passion for language, culture, travel, and serving others. Her undergraduate years at the University of Washington have been spent pursuing a major in International Studies with a focus in Foreign Policy, Diplomacy, Peace and Security. After graduation she hopes to continue language learning and engage her heart for others through volunteering abroad.

Claire Wang is originally from China and currently an undergraduate student at the University of Washington with a B.S. in Economics and a B.A. in International Studies. Her career interest lies in management consulting. In 2015, she led the Seattle chapter of AIESEC - the world's largest student-run NGO with a focus on developing youth leadership.

Elizabeth Castro identifies as the daughter of farmworkers. She is from Mesa, Washington and Veracruz, Mexico. Elizabeth is a senior in the Jackson School focusing on Latin American studies and a minor in Education. She aims to advocate toward education equity and her research interests include immigrant youth experiences, education as a human right, and civic engagement.

Jordan Habenicht is currently a senior in the Jackson School of International Studies focusing on International Political Economy. His interest is in economic policies of development and finding ways to implement more effective legislation. Previously he served six and a half years with the U.S. Army which involved multiple humanitarian missions. One of these missions saw him assisting in relocating the town of Newtok, Alaska as a result of the effects of climate change.

Michael (Mac) Zelle is originally from Rollinsford, NH. He is a double major in Economics and International Studies at the University of Washington, graduating in June 2016. Mac's area of focus is sovereign debt markets. He has long had an interest in international legal systems, and being a life long sailor, has a novice's interests in maritime law.

Kyle Wheeler is a Senior at the University of Washington and is from Tacoma, Washington. He is majoring in International Studies with a focus in Diplomacy, Foreign Policy, and National Security. Kyle is currently planning on going to law school in order to practice international humanitarian or environmental law.

Jake Creps is an undergraduate student in the Jackson School of International Studies at the University of Washington with a minor in Arctic Studies. Prior to studying at the University of Washington, Jake was an intelligence analyst with the United States Air Force where he studied the culture, politics, economies, and militaries of state and non-state actors in Africa, the Middle East, and Asia. As part of the Carnegie International Policy Institute Fellowship, Jake plans to continue work in policy writing and development in the Arctic region.

Ivalene Laohajaratsang is currently a graduating senior of the Jackson School of International Studies at the University of Washington. Her concentration includes international law, human rights, and diplomacy. Growing up in Thailand, Ivalene spent most of her childhood in a diverse community, attending international schools. She aspires to devote her life to improving the lives of others through advocating for equality and justice.

