



Arctic and International Relations Series



Young and Emerging Scholars Edition



JACKSON SCHOOL OF INTERNATIONAL STUDIES
UNIVERSITY *of* WASHINGTON
Canadian Studies Center

Canadian Studies Center
Henry M. Jackson School of International Studies
University of Washington, Seattle

Contents

PREFACE

pg. 5

PART I: HENRY M. JACKSON SCHOOL OF INTERNATIONAL STUDIES UNDERGRADUATE TASK FORCE ON THE ARCTIC

pg. 9

INTRODUCTION

Task Force on the Arctic

Nadine C. Fabbi and Vincent F. Gallucci

pg. 10

Major Opportunities and Major Responsibilities: The Future of Arctic Resource Extraction

Laura Heckenlively

pg. 12

Black Carbon and Methane: Mitigation and Prevention in the Arctic

Kelsey Brewster

pg. 15

The United States and Arctic Heavy Fuel Oil: Moving beyond the Juncture

Brandon Ray

pg. 18

Planned Relocation: An Adaptive Strategy to Climate-Induced Displacement in the Arctic

Danika Moore

pg. 22

Voicing Food Security for the Inuit of the North American Arctic

Allison Rutz

pg. 24

Promoting Mental Wellness and Resilience in the Arctic

Yuchen Wang

pg. 27

Postsecondary Educational Opportunities for Inuit in the Arctic

Elizabeth Castro

pg. 30

Establishing a New Transportation Strategy in Nunavut to Promote Economic Development

Jordan Habenicht

pg. 33

Reformation of the Arctic Council: The Changing Global Dynamics of the North

Ivalene Laohajaratsang

pg. 36

PART II: HENRY M. JACKSON SCHOOL OF INTERNATIONAL STUDIES INTERNATIONAL POLICY INSTITUTE ARCTIC FELLOWS PROGRAM

pg. 39

INTRODUCTION

One Arctic and the US Chairship of the Arctic Council

Nadine C. Fabbi

pg. 40

Assessing Freshwater Security in the Arctic: A Call for an Arctic-Specific Water Resources Index

Rachel Freeman

pg. 42

The Arctic Economic Council and Its Relationship to Arctic Indigenous Communities

Jordan Habenicht

pg. 46

City Diplomacy and the Arctic: Pursuing City Diplomacy for Pragmatic Policymaking

Moh Kilani

pg. 49

South Korea, Singapore, and the Permanent Participants: Innovative Approaches to Observer Status on the Arctic Council

Jay-Kwon James Park

pg. 52

Reframing Sustainable Development in the Arctic Council

Brandon Ray

pg. 55

Energy Security in the Arctic: How US and Canadian Collaboration Can Help the Arctic Council Implement Renewable Energy Solutions

Kira Siebert

pg. 59

Making Indigenous Consultation Meaningful within the Arctic Council

Jason C. Young

pg. 62



Preface

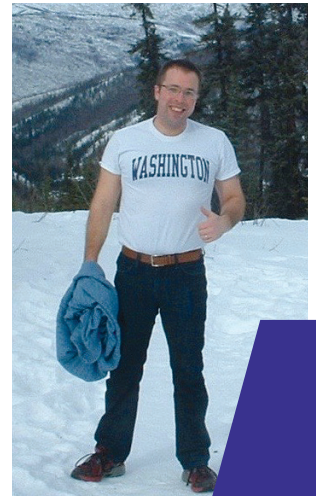
Welcome to our first *Young and Emerging Scholars* issue, featuring the work of undergraduate and graduate students pursuing the study of Arctic issues at the Henry M. Jackson School of International Studies (Jackson School). These young or emerging scholars are from diverse backgrounds and have wide-ranging scholarly interests. Yet all have a keen interest in understanding the enhanced role of the Arctic in international relations – both as a focus of and a new voice in global geopolitics. The undergraduate policy papers in Part I are extracted from much longer research papers that formed a 200-plus-page report assessing the status of the Arctic Council in its 20th year. The graduate student papers in Part II were developed in response to the current theme of “One Arctic,” adopted by the US chair of the Council. Both the Jackson School’s JSIS 495 Task Force on the Arctic and the JSIS 600 One Arctic courses engaged students in pedagogical approaches unique to our Center and School – study-in-Canada or immersion experiences and policy-relevant research.

There is no question that study abroad and immersion experiences have a profound and lasting impact on students’ personal and academic lives and play a role in shaping their career paths. The biennial Task Force on the Arctic is unique in that it takes the students on a one-week fact-finding mission to Ottawa, Canada, to conduct fieldwork and interviews with scholars, government departments, embassies of Arctic countries, and Inuit organizations. Students often describe the trip to Ottawa as a “once-in-a-lifetime” experience. This year, 12 undergraduate students majoring in International Studies participated in the one-week trip to Ottawa at the end of January 2016. At the

graduate level, seven students in JSIS 600 attended the inaugural Arctic and International Relations Institute two-day workshop, “One Arctic: The U.S. Chairmanship of the Arctic Council,” held at the Wilson Center in Washington, DC, in April 2016. During the workshop, students were able to meet and talk with Arctic scholars, representatives from the Arctic Council, and Indigenous leaders. According to one student, “No other event has given me such direct contact with the great visionaries of Arctic research and policy.” Providing our students with study-in-Canada and immersion experiences with Arctic experts is one of the hallmarks of the Jackson School’s Arctic Studies program.



During the one-week fact-finding trip to Ottawa, Task Force students are able to meet with young colleagues at Nunavut Sivuniksavut (NS) to develop their understanding of Inuit educational policies. Elizabeth Castro (left), major in International Studies, poses with Priscilla Nordstrom from NS.



Immersion experiences for Jackson School students in Canadian and Arctic Studies include participation in the international Model Arctic Council (MAC). Brandon Ray participated in the MAC in Alaska in March where he developed policy-relevant research for the Arctic Council.

Also unique to our Center and School is student training in policy writing. All undergraduate students in the Jackson School are required to complete a policy memo workshop prior to entry into a Task Force. At the graduate level, policy training has been enhanced with the new International Policy Institute. The Institute is dedicated to generating original thinking on emerging topics in international affairs and bringing a new and uniquely Pacific Northwest voice to the policy conversation. At both the undergraduate and graduate levels, students are trained to ask policy-relevant questions and encouraged to write for policy audiences to bridge the gap between academia and the world of policymaking.

We hope that you enjoy reading these short policy option papers by our young and emerging scholars. For many, this was their introduction to understanding the role of the Arctic in international affairs; for a few, the Arctic has been their focus of study for some time. In all cases, the students came up with innovative ways to approach new challenges brought by climate change and to consider new ways of thinking about international relations as a result of Arctic Indigenous involvement.

We wish to thank the International Policy Institute in the Jackson School (supported by funding from Carnegie Corporation of New York) for its support for both the undergraduate Task Force on the Arctic and the graduate seminar. We also wish to thank Dr. Joanne Muzak, copyeditor, for her invaluable advice throughout both courses and projects; and Monick Keo and Christine Tabadero, Canadian Studies Center staff, for their assistance in everything undertaken at the Center.



Immersion experiences in the Jackson School include opportunities to study in the Canadian Arctic. This past summer Jason Young, Foreign Language and Area Studies Fellow in Inuktitut, conducted language study and research in Igloolik, Nunavut.

The Canadian Studies Center, Henry M. Jackson School of International Studies, was established in 1987 as a U.S. Department of Education National Resource Center on Canada with the Center for Canadian-American Studies at Western Washington University. The Canadian Studies Center, a member organization of University of the Arctic, oversees the Arctic and International Relations initiative in the Henry M. Jackson School of International Studies and serves as the hosting unit for UW's Canada Fulbright Chair in Arctic Studies and the interdisciplinary minor in Arctic Studies (a partnership between the Jackson School and the School of Oceanography).

Arctic and International Relations Series is the outcome of a partnership between the Canadian Studies Center/Arctic and International Relations and the International Policy Institute in the Jackson School of International Studies and UW's *Future of Ice* initiative. The series is dedicated to translating scholarship into policy options to enhance understanding of the Arctic as a unique region in international affairs and to support the inclusion of Arctic Indigenous peoples in policy shaping for the region.

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Part I: Henry M. Jackson School of International Studies Undergraduate Task Force On The Arctic

INTRODUCTION

Task Force on the Arctic

NADINE C. FABBI AND VINCENT F. GALLUCCI

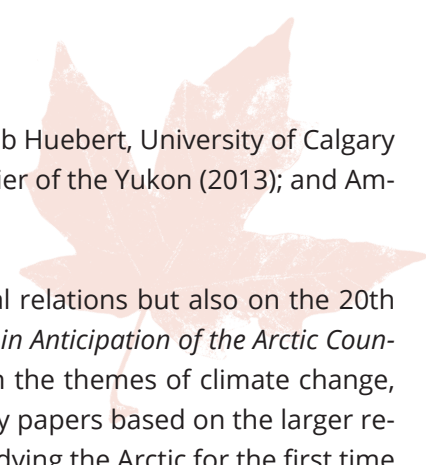
Since 1983, the capstone project for students majoring in International Studies in the Henry M. Jackson School of International Studies (Jackson School) at the University of Washington is Task Force. Task Force (approximately eight are offered every winter quarter) investigates a wide range of topics and provides recommendations to various branches and offices of the US government, as well as to international, multilateral, and non-governmental organizations. Each Task Force consists of up to 20 students who together tackle a real-world policy issue and produce a final report with practical policy recommendations. The findings are presented to an outside expert evaluator and the report is published online with UW Libraries.

Beginning in 2008, the Canadian Studies Center partnered with International Studies to offer a Task Force on the Arctic that would also bring students to Ottawa, Canada, for a one-week fact-finding mission. As noted in the Preface, time in Ottawa is spent meeting with Arctic scholars; visiting Canadian government departments such as Global Affairs, National Defence, Fisheries and Oceans, and Indigenous and Northern Affairs, the Embassies of Arctic nations including Russia, Iceland, Norway, and Finland, and Inuit organizations including the Inuit Tapiriit Kanatami and Inuit Circumpolar Council; as well as participating in walking and parliamentary tours.

To date, four Task Force courses have been offered on the Arctic. In total, over 50 students have been introduced to a wide variety of current issues in the Arctic, including the North American dispute over the Northwest Passage, Arctic governance, security, and the Arctic Council. Each of these students traveled to Ottawa (and in 2013 to Quebec City). Without exception, it was the first time any of the students had visited Canada's capital. The impact on the personal and professional lives of the students has been nothing short of profound. Students have gone on to obtain master's degrees in Arctic Studies, served as Fulbright Scholars, and worked on Arctic policy for the Government of Quebec and other entities. For one student this was her first experience visiting a foreign embassy and the experience would shape her career – Victoria Choe is now a consul for the US State Department. Still others have gone on to pursue law, business, and even medical degrees, and many continue to cite the Task Force on the Arctic as informing their perspectives on the world.



Students in the Jackson School's Task Force are trained in policy-writing skills. The students in the Arctic Task Force travel to Canada where they spend a week in Ottawa conducting on-site research, and learning firsthand about Arctic policy at the domestic and international levels.



Expert evaluators have included key scholars and diplomats in the field, including Rob Huebert, University of Calgary (2008); Julia Gourley, US Department of State (2011); Anthony Penikett, former premier of the Yukon (2013); and Ambassador Kenneth Yalowitz (2016).

The 2016 Task Force focused not only on the Arctic as a new player in international relations but also on the 20th anniversary of the Arctic Council. The students named their report *A Progress Report in Anticipation of the Arctic Council's 20th Anniversary*. Each of the students wrote a chapter in the report focused on the themes of climate change, community capacity and health, and security and economic issues – nine short policy papers based on the larger researched chapters are included here. In each case, the undergraduate student is studying the Arctic for the first time and does a superb job of attempting to make relevant policy recommendations to the Arctic Council, from creating new task forces on resource extraction and renewable energy technology, to strategies for climate refugees, food security, mental health issues, and education, to economic development policies.

We are also proud to note that several of the students are already enjoying success in their careers. Kelsey Brewster is currently a Fulbright English teacher in Malaysia and plans to pursue a graduate degree. Elizabeth Castro is a Fulbright English Teaching Assistant in Mexico City and will continue her studies at the Harvard Graduate School of Education in Education Policy and Management. Jordan Habenicht is an intern with the Arctic Caucus, Pacific Northwest Economic Region. Laura Heckenlively is currently studying at the Culinary Institute of America in Napa Valley on the Accelerated Culinary Arts Graduate Certificate Program and is determined to enter the food world with a concentration on food policy and education. Ivalene Laohajatsang is now working in financial investment in Bangkok, Thailand. Danika Moore is currently in New York interning with the Rainforest Alliance's individual philanthropy team. Brandon Ray is now enrolled in a concurrent master's degree in International Studies and Marine and Environmental Affairs. He was awarded a 2016–17 Foreign Language and Area Studies Fellowship to study the Russian language and the Arctic. Finally, Yuchen Wang has been offered a position at Deloitte Consulting. We are enormously proud of each of them!

Nadine C. Fabbi and **Vincent F. Gallucci** were the co-instructors for the JSIS 495 Task Force on the Arctic offered in winter quarter 2016. This course and fact-finding mission were supported by funds from the University of Washington Jackson School International Policy Institute (funded by a grant from Carnegie Corporation of New York); 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).

Major Opportunities and Major Responsibilities: The Future of Arctic Resource Extraction

LAURA HECKENLIVELY

SUMMARY

International fossil fuel dependency has brought attention to the Arctic and the undiscovered oil and gas reserves that lie under its ice. As the Arctic Ocean warms and sea ice melts, non-Arctic nations have begun to look north for development opportunities, insisting that the Arctic should be considered a “global commons” for every industry and company, regardless of its proximity to the region. At the same time, in the face of climate change, oil and gas exploration and further resource extraction in the Arctic pose great environmental and economic risks. As the Arctic region becomes a global focal point, it is important that success in this terrain is redefined as sustainable development that benefits Indigenous peoples by promoting access to modern society, existing nations as they search for new ways to fuel the world, and, arguably most importantly, the Arctic environment as it plays a significant role in regulating the climactic changes the globe is already facing. In this article, I pose three broad recommendations to guide the Arctic Council through this significant time in the Arctic region’s history and to mitigate these environmental and economic risks while accessing some of the many opportunities: (1) the creation of a new Arctic Council Task Force dedicated to compiling research and publishing recommendations on the environmental regulations, safe extraction practices, and the importance of the Arctic region in relation to other parts of the world; (2) the establishment of partnerships between nations and resource extraction companies to ensure both the environmental and economic risks are being handled appropriately; and (3) allowing for only the nations with the most advanced and environmentally friendly extraction methods to access the Arctic’s immense oil and gas resources.

INTRODUCTION

Experts have estimated that 31 percent of the world’s remaining reserves of natural gas and 13 percent of remaining reserves of oil, approximately 360 billion barrels, exist in the frozen waters of the Arctic.¹ The Arctic is experiencing a temperature increase at double the rate of the global average, which is melting ice that has locked away massive oil and gas reserves for centuries, on the account of it being too risky to navigate. In the past century, the continually warming globe has allowed the eyes of industries and nations to drift north to this seemingly untouched region, inciting fear among environmental advocates, researchers, and Indigenous groups that this region will be overtaken and destroyed by massive machinery, effectively ruining the culturally significant and environmentally paramount elements of the Arctic. As a high level, non-governmental forum, the Arctic Council has promoted the research of this vast region, so as to ensure that as the Arctic develops and/or becomes more accessible, it is done in the most beneficial way for all parties involved. However, through examination of the Ottawa Declaration (1996), Iqaluit Declaration (2015), and Protection of the Arctic Marine Environment Working Group’s (PAME) Arctic Offshore Oil and Gas Guidelines (2008), it is apparent that there is no cohesive regulatory body that deals with resource extraction. While the Arctic Council has been successful in producing massive amounts of research in the past twenty years, research has been divided among many Task Forces, Working Groups, and private researchers, making accessing a succinct list of recommendations on oil and gas activities rather challenging.

¹ U.S. Department of the Interior and U.S. Geological Survey, “Circum-Arctic Resource Appraisal: Estimates of Undiscovered Oil and Gas North of the Arctic Circle,” USGS Fact Sheet 2008-3049, 2008, <https://pubs.usgs.gov/fs/2008/3049/fs2008-3049.pdf>.



BACKGROUND

In June 1968, ARCO and Humble Oil and Refining Company examined test cores taken from Prudhoe Bay, Alaska, that confirmed the existence of huge oil reserves in the North American Arctic for the first time.² Since then, Arctic nations have invested in the extraction industry, which has proven to be a profitable venture, as evidenced in the amassing of nearly US\$873 billion in Norway's Sovereign Wealth Fund, which is compiled of the profits earned from offshore oil and gas activities and reserved for the national population in a post-fossil-fuel world.³ Although the Arctic Council has conducted vast amounts of research on environmental consequences of Arctic resource extractive activities, mainly evident in reports from the PAME Working Group, the Council's position as a non-law-making forum has limited its ability to enforce its recommendations. While the Arctic Council's very nature is to remain distinct from law-making governmental bodies, the recommendations that stem from the research conducted by the Council's various Working Groups and Task Forces will be stronger and easier to use in lobbying nations or non-governmental bodies if they come from a succinct and cohesive body.

The Ottawa and Iqaluit Declarations both state that the Arctic Council has "commitments to protecting the Arctic environment, including the sustainable use of natural resources"; these commitments have been seen with the initiation of various research teams and continue to be a high priority.⁴ Investments by individual nations and companies into the Arctic's rich resource wealth constitutes the majority of present activity, as the majority of Arctic Council reports consist of non-binding recommendations.

CONCLUDING THOUGHTS

The warming of the Arctic puts the health of the ecosystem at risk, and the three recommendations I outline at the beginning of this article seek to keep environmental health a top priority in the face of increasing global interest and investment in this region. The first recommendation is to establish a single Task Force whose sole focus would be to develop strict environmental regulations regarding Arctic natural resource exploration. While this task has been taken on by various Task Forces and Working Groups in the past, allowing for experts and researchers who have published many of the previous reports to come together in a think tank or Task Force will only strengthen the quality of research, recommendations, and regulations released. Reports released by PAME, the Sustainable Development Working Group, and the Emergency, Prevention, Preparedness and Response Working Group illustrate the vast amount of research that has been conducted and not enforced.

The second recommendation, originally put forth by Heather A. Conley et al., involves forming partnerships between nations and private oil companies with the distinct purpose of establishing national environmental regulations that companies would be legally obliged to abide.⁵ Partnerships like the ones that Conley proposes can be seen in the case of Norway and its partnership with Statoil; environmental regulations set forth by the nation are followed by a contracted private extraction company, which, in turn, benefits the nation in terms of economic gain and sustained environmental health. Ultimately, this will lead to a succinct set of regulations that are then carried out by extraction companies.

² Lori Jo Oswald, "ARCO Strikes Oil at Prudhoe Bay," *Petroleum News* 6, no. 1 (January 28, 2001).

³ Sovereign Wealth Fund Institute, "Tracking the Activity of Sovereign Wealth Funds, Pensions and other Public Funds," accessed August 24, 2016, <http://www.swfinstitute.org/fund-rankings/>.

⁴ Arctic Council, *Declaration on the Establishment of the Arctic Council* [Ottawa Declaration], Ottawa, ON, 1996, <https://oaarchive.arctic-council.org/handle/11374/85>.

⁵ Heather A. Conley, David L. Pumphrey, Terence M. Toland, and Mihaela David, *Arctic Economics in the 21st Century: The Benefits and Costs of Cold* (Center for Strategic & International Studies, 2013), https://csis-prod.s3.amazonaws.com/s3fs-public/legacy_files/files/publication/130710_Conley_ArcticEconomics_WEB.pdf.

The third recommendation stems from non-Arctic nations' involvement and interest in the warming Arctic. While the majority of all oil and gas activities have been undertaken by Arctic nations, allowing for non-Arctic nations to invest in extractive practices could set the stage for further international cooperation. Additionally, allowing coalitions between nations that have substantial research and technology development in environmentally minded extraction will ensure that the Arctic's ecosystem health remains of highest priority. Currently, this kind of coalition does not exist in the Arctic region; however, with the peak interest of Asian countries that possess highly technical practices, it is possible to imagine a future where those practices are loaned or provided by Asian countries to ensure that the best practices are being used for economic benefit and continued environmental health in the Arctic.

Ultimately, the Arctic Council can ensure a place for oil and gas extraction activities in the Arctic while protecting the environment by implementing stricter environmental standards and continuing to compile research on the environmental externalities associated with oil and gas extractive practices.

Laura Heckenlively graduated from University of Washington with a degree in International Studies and Environmental Studies and is currently pursuing an advanced culinary arts degree at the Culinary Institute of America in Napa, California. She aspires to be involved in food policy, nutritional education, and sustainability practices as a career in the near future.

Black Carbon and Methane: Mitigation and Prevention in The Arctic

KELSEY BREWSTER

SUMMARY

As short-lived climate forcers, black carbon and methane pose some of the strongest threats to the melting of the Arctic. Since the Arctic Council's inception in 1996, it has made multiple efforts to reduce black carbon and methane emissions. With concrete cooperative action between the Arctic Council members and Arctic stakeholders, steps can be taken 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

INTRODUCTION

The Canada and United States Arctic Council chairships (2013–15 and 2015–17, respectively) have witnessed real changes concerning pollution policy in the Arctic. Nonetheless, pollution in this region is still a problem, and to ensure the Arctic environment's survival, binding agreements need to be created to prevent excessive pollution from overwhelming the earth's atmosphere. The Arctic Council needs to spur action and promote solutions, such as the implementation of renewable energy technology across Arctic communities and the improved regulation of the oil and gas industry in the circumpolar region.

BACKGROUND

Black carbon and methane are short-lived climate forcers, and while both are mainly anthropogenic, methane is a naturally occurring gas as well.² Secretary of State John Kerry mentioned both pollutants in his remarks at the 2015 Arctic Council meetings in Iqaluit, Canada; Kerry explained, "the compilation of national black carbon and methane emission inventories, national reporting on domestic mitigation efforts, and greater international cooperation on reducing these dangerous pollutants" are priorities during the US chairship.³ Black carbon and methane contribute greatly to the anthropogenic greenhouse effect by absorbing energy and reemitting it as heat. These hazards to human health, ecosystems, food security, and agriculture have been a major focus of the Arctic Council in its attempt to mitigate pollution and the warming of the Arctic. Arctic Council Working Groups such as the Arctic Monitoring Assessment Programme (AMAP), the Conservation of Arctic Flora and Fauna (CAFF), and the Arctic Contaminants Action Program (ACAP) have produced multiple reports, studies, and solutions to address issues associated with these pollutants.

AMAP is mandated to monitor pollution and climate change in the Arctic region. It has produced assessments on both black carbon and methane, released in 2015.⁴ CAFF concerns itself with conservation of and intersectoral coop-

¹ Arctic Council, "Iqaluit Declaration 2015," April 24, 2015, <https://oaarchive.arctic-council.org/handle/11374/662>.

² Arctic Monitoring and Assessment Programme (AMAP), *AMAP Assessment 2015: Black Carbon and Ozone as Arctic Climate Forcers* (Oslo: AMAP, 2015), <http://www.amap.no/documents/doc/AMAP-Assessment-2015-Black-carbon-and-ozone-as-Arctic-climate-forcers/1299>.

³ John Kerry, "Remarks at the Presentation of the U.S. Chairmanship Program at the Arctic Council Ministerial," Legislative Assembly of Nunavut Iqaluit, Canada, April 24, 2015, <http://www.state.gov/secretary/remarks/2015/04/241102.htm>.

⁴ AMAP, *AMAP Assessment 2015: Black Carbon and Ozone as Arctic Climate Forcers*; AMAP, *AMAP Assessment 2015: Methane as an Arctic climate forcer* (Oslo: AMAP, 2015), <http://www.amap.no/documents/doc/AMAP-Assessment-2015-Methane-as-an-Arctic-climate-forcer/1285>.

eration on species, habitat management, and regulatory decision making. CAFF successfully created a working plan for conservation in the Arctic that addresses black carbon and methane; it offers recommendations and policies to reduce climate change in the Arctic and to promote conservation practices.⁵ ACAP's goal is to completely eliminate emissions of pollutants in the Arctic through the implementation of national actions. Two of its Expert Groups – Short Lived Climate Pollutants and Indigenous Peoples Contaminant Action Program – focus on that goal. ACAP also created a Black Carbon Case Studies Platform to showcase projects or policies concerning mitigation in the Arctic.⁶ Successful projects have taken place in Alaska, Canada, and Sweden, where clean energy such as solar, wind, and hydro power are being used to cut black carbon emissions. During its Arctic Council chairship, Canada created a Task Force on Black Carbon and Methane, which linked past work by the Task Force on Short Lived Climate Forcers, AMAP, and ACAP and successfully culminated in an Arctic Council *Framework for Action on Enhanced Black Carbon and Methane Emissions Reductions*.⁷ 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 national reports and policies related to their black carbon and methane emissions reductions strategies.⁸ While the Arctic Council has achieved significant progress in the realm of emissions reductions, much more needs to be done to slow the melting and contamination of the Arctic.

CONCLUDING THOUGHTS

The Task Force on Black Carbon and Methane, a product of Canada's chairship as noted above, not only resulted in the Arctic Council *Framework for Action on Enhanced Black Carbon and Methane Emissions*. The Task Force also created the *Actions for Arctic Biodiversity*, which offers recommendations and policies to reduce climate change in the Arctic and promote conservation practices. They also effectively contributed to the reduction of black carbon emissions in the Murmansk region of Russia.⁹ As the current Arctic Council Chair, the United States has the opportunity to implement policies that will curb climate change and address specific problems associated with black carbon and methane. To conclude, I would like to offer three policy recommendations that would assist the Arctic Council in addressing black carbon and methane emissions.

The first recommendation requires that the Arctic Council create legally binding agreements concerning pollution. These agreements would apply to the entire Arctic region and be mandatory for Member States and Permanent Participants. This option would involve monitoring the release of black carbon in the shipping and oil and gas industries as well as other sources of emission. By signing a binding agreement, Member States would be required to release up-to-date reports on their efforts to control emissions. The second recommendation requires greater control of economic activities in the Arctic, including drilling, shipping, fishing, and resource extraction. Companies partaking in these activities would be required to update their technology, such as vehicles or extraction machinery, to meet clean energy standards. The Arctic Council would need to hold Member States responsible for monitoring the activities of companies based in their country. The third recommendation requires that renewable energy be recommended to Indigenous communities immediately. With the successful integration of wind, solar, and geothermal energy in the Arctic landscape having been proven to work in places such as Sweden, Canada, and the United States, the Arctic

⁵ Conservation of Arctic Flora and Fauna (CAFF), *Actions for Arctic Biodiversity, 2013–2021: Implementing the recommendations of the Arctic Biodiversity Assessment* (Akureyri, Iceland: Conservation of Arctic Flora and Fauna, 2015), <http://www.caff.is/actions-for-arctic-biodiversity-2013-2021>.

⁶ Arctic Council, "Black Carbon Case Studies Platform," accessed February 21, 2016, <http://www.arctic-council.org/index.php/en/acap-home/black-carbon-case-studies>.

⁷ Arctic Council, *Enhanced Black Carbon and Methane Emissions Reduction an Arctic Council Framework for Action* (Annex 4: Iqaluit: 2015 SAO Report to Ministers), accessed February 24, 2016, <https://oaarchive.arctic-council.org/handle/11374/610>.

⁸ Ibid.

⁹ CAFF, *Actions for Arctic Biodiversity*.



Council should build a program to increase the construction of renewable energy technology in Indigenous communities.¹⁰ The Black Carbon Case Studies Platform helped to showcase these clean energy projects; yet, as black carbon and methane continue to increasingly pollute the environment, these clean energy projects should be increasingly promoted and implemented.¹¹ These policy recommendations represent an opportunity to monitor Arctic activity before it begins growing exponentially, and the Arctic Council currently represents the best forum through which to promote awareness and call the world to action.

Kelsey Brewster is currently a Fulbright English teacher in Malaysia and plans to pursue a graduate degree in the future.

¹⁰ Arctic Council, "Solar Project, Pieta, Sweden," September 8, 2015, <http://www.arctic-council.org/index.php/en/our-work2/8-news-and-events/337-solar-project-pieta-sweden>; Arctic Council, "Chena Hot Springs, Chena, AK, USA," September 8, 2015, <http://www.arctic-council.org/index.php/en/our-work2/8-news-and-events/336-chena-hot-springs-chena-ak-usa>; Arctic Council, "Diavik Wind Farm Yellow Knife, Canada," September 8, 2015, <http://www.arctic-council.org/index.php/en/our-work2/8-news-and-events/338-diavik-wind-farm-yellow-knife-canada>.

¹¹ Arctic Council, "Black Carbon Case Studies Platform," accessed February 21, 2016, <http://www.arctic-council.org/index.php/en/acap-home/black-carbon-case-studies>.

The United States and Arctic Heavy Fuel Oil: Moving beyond the Juncture

BRANDON RAY

ABSTRACT

The Arctic Council's *Arctic Marine Shipping Assessment 2009 Report* characterized the discharge of oil as the “most significant threat from ships to the Arctic marine environment.”¹ This designation is largely due to the severity of oil spills in locations that do not have infrastructure to provide spill response as well as the impact that emissions have on both the greenhouse effect and melting ice. Regardless of maritime sector – tourism, cargo, fishing – all parts of the Arctic marine economy rely on heavy fuel oil to some extent,² which makes heavy fuel oil a widespread potential threat to the Arctic marine environment. As concerns over the dangers posed by heavy fuel oil align with the United States' Arctic strategy³ and its Arctic Council chairship priorities,⁴ the timing is optimal for the United States to evaluate several options for restricting or banning the use of heavy fuel oil in the Arctic, and to take the necessary action to protect the Arctic marine environment.

INTRODUCTION

The 2013 US National Strategy for the Arctic Region has three lines of effort: advancing our security interests, pursuing responsible stewardship, and strengthening international cooperation.⁵ This strategy is well aligned with the US Arctic Council chairship priorities: improving economic and living conditions in Arctic communities; Arctic Ocean safety, security, and stewardship; and addressing the impacts of climate change.⁶ Given that the use of heavy fuel oil is directly tied to two of the US chairship priorities and indirectly influences the third through climate change's impact on community livelihood, as well as all three lines of effort in our National Strategy, restricting the use of heavy fuel oil is clearly a top priority for the United States. In the March 2016 US–Canada Joint Statement on Climate, Energy, and Arctic Leadership, President Obama and Prime Minister Trudeau reaffirmed a commitment to “determine with Arctic partners how best to address the risks posed by heavy fuel oil use and black carbon emissions from Arctic shipping.”⁷ Both Arctic Council Permanent Participants and Observers have shown that they would be potential allies in the US cause. Alaskan Inuit, along with their counterparts in Canada, Greenland, and Chukotka, have also identified heavy fuel oil use as a top concern.⁸ In January 2016, 15 non-governmental organizations (NGOs), including the World Wide Fund for Nature (an Arctic Council Observer), petitioned Ambassador David Balton of the State Department, who serves as the chair of the Senior Arctic Officials, to ban heavy fuel oil use in the Arctic. In their letter, the NGOs enumerated the environmental and logistical reasons for a proposed ban, including the potential harm that heavy

¹ Arctic Council, *Arctic Marine Shipping Assessment* (Anchorage AK: PAME, 2009), http://www.pame.is/images/03_Projects/AMSA/AMSA_2009_report/AMSA_2009_Report_2nd_print.pdf.

² A. Mjelde, K. Martinsen, M. Eide, and Ø. Endresen, “Environmental Accounting for Arctic Shipping: A Framework Building on Ship Tracking Data from Satellites,” *Marine Pollution Bulletin* 87, no. 1/2 (2014): 22–28.

³ White House, *National Strategy for the Arctic Region* (Washington, DC: White House, 2013), https://www.whitehouse.gov/sites/default/files/docs/nat_arctic_strategy.pdf.

⁴ U.S. Department of State, “U.S. Chairmanship of the Arctic Council,” October 29, 2015, <http://www.state.gov/e/oes/ocns/opa/arc/uschair/>.

⁵ White House, *National Strategy for the Arctic Region*.

⁶ U.S. Department of State, “U.S. Chairmanship of the Arctic Council.”

⁷ White House, “U.S.–Canada Joint Statement on Climate, Energy, and Arctic Leadership,” press release, March 10, 2016, <https://www.whitehouse.gov/the-press-office/2016/03/10/us-canada-joint-statement-climate-energy-and-arctic-leadership>.

⁸ Inuit Circumpolar Council, *The Sea Ice Never Stops: Circumpolar Inuit Reflections on Sea Ice Use and Shipping in Inuit Nunaat* (Ottawa: Inuit Circumpolar Council–Canada, 2014), http://www.inuitcircumpolar.com/uploads/3/0/5/4/30542564/sea_ice_never_stops_-_final.pdf.



fuel oil causes, and called for action instead of continued further study.⁹ The Protection of the Arctic Marine Environment (PAME) Working Group has been addressing the use of heavy fuel oil through a series of studies and reports for a number of years.¹⁰ The PAME Working Group met in Stockholm in early February 2016. While heavy fuel oil use was discussed, the Working Group resolved to conduct further research and elicit mitigation recommendations for its next meeting in September 2016.¹¹ Even if recommendations for action are selected at the September meeting, it is unlikely that any actionable solution can be enacted before the United States turns the chairship over to Finland in May 2017.

BACKGROUND

With decreasing Arctic sea ice extent,¹² tourism, shipping, and fishing traffic are projected to increase.¹³ In the Arctic, heavy fuel oil is found predominantly in medium tonnage cargo vessels, which have a greater spill risk as a class of vessels.¹⁴ Heavy fuel oil is the preferred fuel due to its lower cost, averaging \$0.50 to \$1.00 less per gallon than lighter distillate fuel oil.¹⁵ However, heavy fuel oil does not evaporate easily, like distillate fuel oils, and tends to emulsify, which drastically increases the volume of affected water for spill cleanup efforts. Furthermore, heavy fuel oil use causes increased emissions of particulates, such as black carbon,¹⁶ which enhance the greenhouse effect and further reduce sea ice cover through ice-albedo feedbacks, which has unique environmental impacts in polar regions. Already, in November 2015, we witnessed a Russian tanker ran aground near Sakhalin Island. Although the incident happened within 500 feet of a port that had cleanup equipment at the ready, the spill took over a month to clean.¹⁷ Given that a majority of the Arctic is not located near ports or other infrastructure, the longevity of cleanup efforts in the Arctic would be disastrous to ecosystem health.

Providing legally binding requirements for shipping in the Arctic – an improvement over the previous voluntary guidance – the International Maritime Organization’s (IMO) Polar Code will come into force in January 2017. The use of heavy fuel oil has already been banned in the Antarctic through an amendment to the IMO’s International Convention for the Prevention of Pollution from Ships (MARPOL), which came into force on August 1, 2011. MAPROL thus provides a clear precedent for banning heavy fuel in the Arctic. However, the new IMO Polar Code only encourages ships operating in the Arctic not to use or carry heavy fuel oil.¹⁸ A ban on Arctic heavy fuel oil use was previously considered by the IMO in 2013, but it was deemed “premature” by the IMO’s Marine Environment Protection Committee.¹⁹ Given the

⁹ *Maritime Executive*, “Fifteen NGOs Petition Arctic Council on HFO,” January 29, 2016, <http://www.maritime-executive.com/article/fifteen-ngos-petition-arctic-council-on-hfo>.

¹⁰ Protection of the Arctic Marine Environment (PAME), *The Arctic Ocean Review Project, Final Report, (Phase II 2011–2013), Kiruna, May 2013* (Akureyri: PAME Secretariat, 2013), http://www.pame.is/images/03_Projects/AOR/Reports/126082_pame_sept_2.pdf

¹¹ PAME, *PAME I-2016 Working Group Meeting Report* (Akureyri: PAME, 2016), http://www.pame.is/images/02_Document_Library/Meeting_Reports/2016/PAME_I_2016_Meeting_Report.pdf.

¹² Intergovernmental Panel on Climate Change, “Summary for Policymakers,” in *Climate Change 2013: The Physical Science Basis* (Cambridge: Cambridge University Press, 2013), 9.

¹³ GRID-ARENDAL, “Tourism in the Polar Regions: Facts, Trends and Impacts,” accessed May 26, 2016, <http://www.grida.no/publications/tourism-polar/page/1421.aspx>; Laurence C. Smith and Scott R. Stephenson, “New Trans-Arctic Shipping Routes Navigable by Midcentury,” *PNAS* 110, no. 13 (2013): E1191–95; Ed Struzik, “Melting Sea Ice Could Lead to Pressure on Arctic Fishery,” *Yale Environment* 360, May 10, 2012, http://e360.yale.edu/feature/melting_sea_ice_could_lead_to_pressure_on_arctic_fishery/2526/.

¹⁴ Mjelde et al., “Environmental Accounting for Arctic Shipping.”

¹⁵ U.S. Energy Information Administration, “Petroleum Marketing Monthly,” July 1, 2016, <http://www.eia.gov/petroleum/marketing/monthly/>.

¹⁶ Det Norske Veritas, *Heavy Fuel in the Arctic (Phase 1)* (Akureyri: Det Norske Veritas, 2011), http://www.pame.is/images/03_Projects/AMSA/Heavy_Fuel_in_the_Arctic/Phase_I_HFO_project_AMSA_rec_IB-Final_report.pdf.

¹⁷ Emily Russell, “Future of Heavy Fuel Oil in Arctic Waters Challenged,” *Alaska Public Radio*, February 11, 2016, <http://www.alaskapublic.org/2016/02/11/future-of-heavy-fuel-oil-in-arctic-waters-challenged>.

¹⁸ International Maritime Organization, “Shipping in Polar Waters,” accessed February 28, 2016, <http://www.imo.org/en/MediaCentre/HotTopics/polar/Pages/default.aspx>.

¹⁹ International Maritime Organization, *Report of the Marine Environment Protection Committee on Its Sixty-Fifth Session* (MEPC 65/22, May 24, 2013), <http://www.uscg.mil/imo/mepc/docs/MEPC65-report.pdf>.

tension between environmental protection and economic development,²⁰ combined with the current state of political feasibility within the American government as well as between the Western nations and Russia, no concrete action has been taken to resolve these issues.

CONCLUDING THOUGHTS

Within the context of marine management in the Arctic, economic growth is occurring and needs to continue. Without challenging economic growth, how can environmental protection improve? With the recent adoption of the Polar Code, which took over a decade to negotiate, the ability to get additional legally binding restrictions on heavy fuel oil use in the Arctic through a revision to the Polar Code is neither likely nor timely. Nonetheless, advocacy for an internationally binding requirement to limit heavy fuel oil in the Arctic can continue with the following actions:

1. Drawing on the support of the Permanent Participants, PAME should continue research efforts on the use and effects of heavy fuel oil in the Arctic. Including Observer nation-states as participants in this research would both increase awareness of the risks of heavy fuel oil use in the Arctic as well as garner support for future restrictions through whatever mechanism they come.
2. PAME should present its findings at the next IMO Marine Environmental Protection Committee meeting and urge the incorporation of the Arctic into the preexisting MARPOL amendment, using what has already been accomplished to raise visibility on the issue.
3. The Arctic Council should promote a ban on usage and carriage of heavy fuel oil in Arctic marine areas of heightened ecological and cultural significance.²¹ For example, Norway has already banned the use of heavy fuel oil in areas surrounding the Svalbard archipelago.²² Given that these areas are the most sensitive to negative externalities, protecting these areas would be a logical first step and allow restrictions to be carried out on a smaller scale to assess the economic impact. This ban would be instituted and regulated by individual nations, and serve as a stopgap until more comprehensive international regulation is established.
4. The Arctic coastal nation states (known as the Arctic Five) could contemplate a moratorium on heavy fuel oil use in the Arctic, similar to the declaration to prevent unregulated fishing in the central Arctic Ocean. If such a moratorium is reached, the Arctic coastal nation-states should conduct a similar meeting to that held in Washington, DC, in December 2015 regarding fishing and bring in Arctic Council Observer nation-states as partners on the moratorium. While this moratorium would be a voluntary agreement between the nations and thus not technically enforceable on the high seas, it could prevent many ships carrying heavy fuel oil from entering the Arctic (as most vessels pass through territorial seas to reach the Arctic).

These courses of action span a plausible range of political feasibility. Although momentum is not currently favorable on the international political stage for binding requirements, the motivation within the US Arctic Council chairship is present. The ability to act within the constraints of the Arctic Council or the Arctic Five provide an ideal location for

²⁰ Mike DeBonis, "On Snowy D.C. Day, Senate Hearing on the Arctic Turns to Climate Change," *Washington Post*, March 5, 2015, <https://www.washingtonpost.com/news/post-politics/wp/2015/03/05/on-snowy-d-c-day-senate-hearing-on-the-arctic-turns-to-climate-change/>.

²¹ Arctic Council, *Identification of Arctic Marine Areas of Heightened Ecological and Cultural Significance: Arctic Marine Shipping Assessment* (AMSA) IIC (Oslo: Arctic Council, 2013), <http://www.amap.no/documents/doc/identification-of-arctic-marine-areas-of-heightened-ecological-and-cultural-significance-arctic-marine-shipping-assessment-amsa-iic/869>.

²² Association of Arctic Expedition Cruise Operators, "Heavy Fuel Oil Ban," February 5, 2016, <http://www.aeco.no/2015/02/heavy-fuel-oil-ban>.

intermediate solutions to address the use and carriage of heavy fuel oil in the Arctic, before shipping numbers make this a much bigger concern or a spill occurs.

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Planned Relocation: An Adaptive Strategy to Climate-Induced Displacement

DANIKA MOORE

SUMMARY

Climate-induced displacement is an urgent issue globally and in the Arctic; planned relocation is the best and often the only adaptive strategy. Many communities in the Arctic are no longer habitable because of changes in their environment, and they have no place to turn for assistance.¹ The Arctic Council should play a leading role in increasing awareness about climate-induced migrants (or climate refugees), funding research on potential relocation sites, and encouraging governments to share information and experience to form a comprehensive planned relocation strategy for the Arctic.

INTRODUCTION

Climate change is causing the Arctic to warm at an alarming rate, resulting in permafrost and sea-ice melt, and an increase in erosion, flooding, and storm surges. Many coastal Indigenous communities are becoming uninhabitable because of these changes: they have lost their protective coastal sea-ice barrier, their infrastructure is collapsing, and their homes are flooding. Of the 213 Alaskan Indigenous communities, 184 are being affected by flooding and erosion, with 31 of these acutely threatened.² The situation is urgent, but governments have been slow to respond.

It is critical that national governments realize the benefits of acting preemptively and recognize that climate-induced migration is not only a humanitarian crisis but an economic and security one as well. Spending money on relocation is more cost effective than continual spending on maintenance of crumbling communities.³ Relocation will also ensure social stability and promote emotional health of Indigenous communities.

BACKGROUND

Climate-induced migration is a relatively new topic; the idea of a link between climate change and migration was introduced in 1990 when the International Panel on Climate Change warned that “the greatest single impact of climate change could be on human migration.”⁴ The first mention of climate refugees in an international conference occurred in 2011 at the Cancun United Nations Convention on Climate Change meeting.⁵ Today, both the Arctic Council and the United States have shown that they are aware of the problem, but neither have solved it.

The 2015 Iqaluit Declaration proves that the Council is moving in the right direction. The Council realizes that the Arctic is becoming increasingly volatile because of climate change and that adaptation is critically important. However,

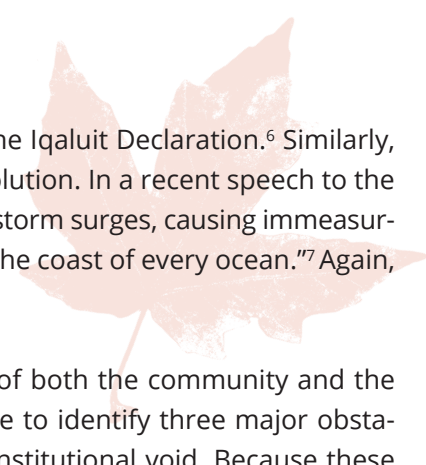
¹ Frank Laczko and Christine Aghazarm, eds., *Migration, Environment and Climate Change: Assessing the Evidence* (Geneva: International Organization for Migration, 2009), 9, http://publications.iom.int/system/files/pdf/migration_and_environment.pdf.

² Robin Bronen and F. Stuart Chapin, “Adaptive Governance and Institutional Strategies for Climate-Induced Community Relocations in Alaska,” *Proceedings of the National Academy of Sciences of the United States of America* 110, no. 23 (2013): 9320, doi: 10.1073/pnas.1210508110.

³ Henry Huntington, Eban Goodstein, and Eugénie Euskirchen, “Towards a Tipping Point in Responding to Change: Rising Costs, Fewer Options for Arctic and Global Societies,” *AMBIO* 41, no. 1 (2012): 67, doi:10.1007/s13280-011-0226-5.

⁴ International Organization for Migration, *Migration, Environment and Climate Change: Assessing the Evidence* (Geneva: International Organization for Migration, 2009), 13, http://publications.iom.int/system/files/pdf/migration_and_environment.pdf.

⁵ Koko Warner, Tamer Afifi, Walter Kalin, Scott Leckie, Beth Ferris, Susan F. Martin, and David Wrathall, *Changing Climate, Moving People: Framing Migration, Displacement and Planned Relocation* (UNU-EHS Publication Series, Policy brief, no. 8, 2013), 14, <https://collections.unu.edu/eserv/UNU:1837/pdf11213.pdf>.



there is no explicit mention of climate-induced migration or planned relocation in the Iqaluit Declaration.⁶ Similarly, the United States acknowledges the urgency of the problem but has not offered a solution. In a recent speech to the Arctic Council, John Kerry said that climate change “threatens to unleash flooding and storm surges, causing immeasurable harm not only to Arctic Communities, but to urban and rural settlements along the coast of every ocean.”⁷ Again, he is aware of the problem but has failed to offer concrete solutions.

By analyzing settlement history, recent environmental changes, and the approach of both the community and the government to threats posed by climate change in three Alaskan villages, I was able to identify three major obstacles to planned relocation: denial by governments, lack of legal definition, and an institutional void. Because these communities are so small and isolated, many governments are not even aware of the unrest faced by their citizens. A definition of climate-induced migrants has not been determined, and therefore it is hard to assign legal rights to this group of people (unlike refugees, who have international protection). The most profound obstacle is the lack of a governing body. There needs to be an institution that can streamline the relocation process. So far, relocation has occurred in a disorderly manner, making it extremely difficult, costly, and inefficient.

CONCLUDING THOUGHTS

The Arctic Council should fund research, raise awareness, define this new type of refugee, and facilitate coordination between Arctic countries to help form a comprehensive relocation strategy. Research should focus on predicting the communities that will become vulnerable in the future and on identifying sound relocation sites. The Council can raise awareness by making the voices of the Permanent Participants heard and by putting forward the issue in conferences. Although the United Nations should be the organization to officially give a definition to “climate-induced migrants,” the Arctic Council could contribute to this definition and help pinpoint the legal protections it should uphold. Lastly, the Arctic Council should promote itself as the nucleus organization tasked with facilitating and coordinating expertise and information sharing among Arctic nations, with the goal of designing a comprehensive planned relocation strategy.

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⁶ Arctic Council, “Iqaluit Declaration 2015,” April 24, 2015, <https://oaarchive.arctic-council.org/handle/11374/662>.

⁷ John Kerry, “Remarks at the Presentation of the U.S. Chairmanship Program at the Arctic Council Ministerial,” Legislative Assembly of Nunavut Iqaluit, Canada, April 24, 2015, <http://www.state.gov/secretary/remarks/2015/04/241102.htm>.

Voicing Food Security for Inuit of the North American Arctic

ALLISON RUTZ

ABSTRACT

North American Inuit experience food insecurity at more than double the rate of all other Canadian households.¹ For Inuit, however, food security goes beyond nutritional health. The Inuit definition of food security requires understanding that food is a lifeline that connects past and current self- and cultural identity. It includes activities surrounding Inuit-preferred foods that provide for future generations through customs and spirituality, languages, knowledge, policies, management practices, and self-governance.² Thus, food insecurity for Inuit detracts from the sustainability of their cultural and traditional values and therefore affects their capacity to secure future well-being and resiliency.

INTRODUCTION

Food security has been internationally defined as “physical and economic access to sufficient, safe, and nutritious food.”³ However, given the Inuit definition of food security stated above, it is evident that food security encompasses more than access to nutritious food. Inuit livelihood is defined by a deep relationship with the environment and the resources it provides,⁴ and is therefore threatened by global human activity driving climate change.⁵ Food insecurity also impinges on Inuit food sovereignty, or the right to define one’s food system, including production, distribution, and consumption.⁶ To uphold commitment to the well-being of Arctic inhabitants,⁷ the Arctic Council has realized its responsibility to address the issue of food security for Indigenous people of the North.

This report defines the specific issues of food security for Inuit of the Arctic as they differ from the global definition of food security. I track the growing prominence and increasing specificity of the issue within the Arctic Council to analyze how increasing recognition of the problem is benefiting research and initiatives that promote Inuit food sustainability. I conclude that the promotion of food security within the Arctic Council should continue, and I suggest ways in which the Arctic Council can further improve food security for Inuit.

BACKGROUND

A review of the Arctic Council’s acknowledgment of Inuit food security reveals that the issue has become more prominent, and a more specific understanding has been accepted over the years, which in turn demonstrates the Council’s

¹ Council of Canadian Academies, *Aboriginal Food Security in Northern Canada: An Assessment of the State of Knowledge* (Ottawa: Expert Panel on the State of Knowledge of Food Security in Northern Canada, Council of Canadian Academies, 2014), 43, http://www.scienceadvice.ca/uploads/eng/assessments%20and%20publications%20and%20news%20releases/food%20security/foodsecurity_fullreporten.pdf.

² Inuit Circumpolar Council–Alaska, *Alaskan Inuit Food Security Conceptual Framework: How to Assess the Arctic from an Inuit Perspective: Summary and Recommendations Report* (Anchorage: Inuit Circumpolar Council–Alaska, 2015), 5, <http://iccalaska.org/wp-icc/wp-content/uploads/2016/03/Food-Security-Summary-and-Recommendations-Report.pdf>.

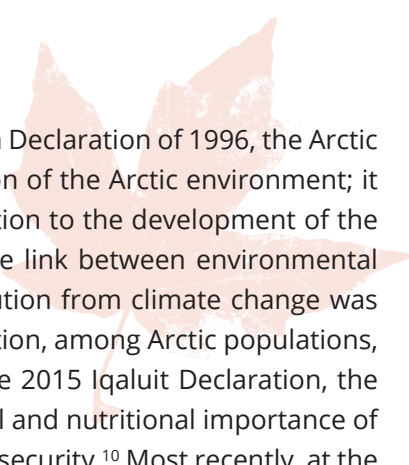
³ Inuit Tapiriit Kanatami, *Social Determinants of Inuit Health in Canada* (Ottawa: Inuit Tapiriit Kanatami, 2014), 29, <https://www.itk.ca/publication/comprehensive-report-social-determinants-inuit-health-national-inuit-organization>.

⁴ Inuit Tapiriit Kanatami and Inuit Circumpolar Council–Canada, *Inuit and the Right to Food: Submission to the United Nations Special Rapporteur on the Right to Food for the Official Country Mission to Canada* (Ottawa: Inuit Tapiriit Kanatami and Inuit Circumpolar Council–Canada, 2012), 6, http://www.inuitcircumpolar.com/uploads/3/0/5/4/30542564/icc.itk.inuit_and_the_right_to_food-for_un_rapporteur_on_the_right_to_food.pdf.

⁵ 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.

⁶ Ibid., 251.

⁷ Arctic Council, “Ottawa Declaration (1996),” September 19, 1996, <https://oaarchive.arctic-council.org/handle/11374/85>.



capacity to effectively evolve and prioritize key Arctic issues. Beginning with the Ottawa Declaration of 1996, the Arctic Council made a commitment to the well-being of Arctic inhabitants and the protection of the Arctic environment; it also recognized the importance of Indigenous knowledge, particularly its contribution to the development of the Council.⁸ Thirteen years later, in the 2009 *Senior Arctic Official Report to Ministers*, the link between environmental and Inuit health was clearly recognized as the Norwegian chairship stated that pollution from climate change was elevating levels of contaminants found in Inuit traditional foods and urged the promotion, among Arctic populations, of access to and consumption of traditional foods low in contaminants.⁹ Then, in the 2015 Iqaluit Declaration, the Arctic nation-states and Permanent Participants specifically acknowledged the cultural and nutritional importance of traditional foods, stating they welcome project proposals to assess and promote food security.¹⁰ Most recently, at the 2015 Arctic Council Ministerial Meeting, International Chair of Inuit Circumpolar Council (ICC), Okalik Eegeesiak voiced the urgency of prioritizing food security in her opening statement. She remarked, “ICC supports the proposed themes and projects for the USA Arctic Council Chairmanship...However, I strongly urge that the United States Chairmanship program include two critical priority areas, namely *Food Security and Inadequate Housing*.”¹¹

Through acknowledging Inuit food security as a specific issue in the Arctic, the Arctic Council has aided in promoting interest and research on the matter within and outside of the Council, which can be seen in the growing number of published academic articles concerning Inuit food security and the response they are receiving. For example, a 2014 study published in the academic journal *Health & Place* evaluated how a community freezer in Nain, Nunatsiavut, influenced country food access. The researchers, a multidisciplinary team of environmental and social scientists and Nunatsiavut Government environmental directors, interviewed freezer users, managers, harvesters, and Elders,¹² and concluded food security must be considered a managed process that requires adjustments to the diverse realities among Inuit.¹³ In this way, informed conversations with locals are necessary to formulating resilient initiatives, like the freezer, in the future. Another report, a collaborative effort of 146 authors published in 2015, depicted how Inuit food security is dependent upon and deeply connected with Arctic environmental health, and thus requires Indigenous knowledge and Inuit experience in local, national, and international forums that seek to create sustainable policies and practices that address food security.¹⁴ These two reports articulate that the current concerns involving Inuit food security focus on the lack of program evaluation¹⁵ and the gap in understanding the specific implications of food security for Inuit.¹⁶ Both examples of research on Inuit food security demonstrate Arctic Indigenous involvement in addressing the issue is critical.

CONCLUDING THOUGHTS

Inarguably, the Arctic Council's increased prioritization of food security has contributed to promoting Inuit well-being. With the capability of identifying and promoting Inuit food security within the Arctic Council, the Council should expand to promote the issue of food security on a global scale, using their influence to draw international attention

⁸ Ibid.

⁹ Arctic Council, *Senior Arctic Official (SAO) Report to Ministers* (Tromsø: Arctic Council, 2009), 17, <https://oaarchive.arctic-council.org/handle/11374/83>.

¹⁰ Arctic Council, “Iqaluit Declaration 2015,” April 24, 2015, <https://oaarchive.arctic-council.org/handle/11374/662>.

¹¹ Okalik Eegeesiak, “One Arctic: Shared Opportunities, Challenges and Responsibilities,” Arctic Council Ministerial Meeting, Iqaluit, Nunavut, April 24, 2015, http://www.inuitcircumpolar.com/uploads/3/0/5/4/30542564/arctic_council_ministerial_meeting_-_iqaluit_nunavut_-_april_24_2015.pdf.

¹² Organ et al., “Contemporary Programs in Support of Traditional Ways,” 252.

¹³ Ibid., 257.

¹⁴ Inuit Circumpolar Council–Alaska, *Alaskan Inuit Food Security Conceptual Framework*, 9.

¹⁵ Organ et al., “Contemporary Programs in Support of Traditional Ways,” 251.

¹⁶ Inuit Circumpolar Council–Alaska, *Alaskan Inuit Food Security Conceptual Framework*, 4.

to the issue. Given that an increasing number of states are seeking Arctic opportunities as well as Observer status on the Council, the timing and context are right for the Arctic Council to promote and improve Inuit food security. Moreover, the Council has a chance to hold any countries that contribute to the environmental changes occurring in the Arctic accountable for their actions, actions that are obstructing or threatening to obstruct Inuit's human right to food security and sovereignty. Additionally, the United States, during its Arctic Council chairship (2015–17), should immediately prioritize Inuit food security to increase recognition and understanding of the issue and encourage further research to identify best practices for the future. Doing so is necessary in protecting Inuit well-being as their livelihood is defined by their relationship with the environment and the resources it provides.¹⁷ As one Inuk stated in the Inuit-produced report *How to Assess the Arctic from an Inuit Perspective*, "Tradition and culture is important from the very beginning that we come into this world. We start with a month of celebrating. We gather and share. This is part of our religion, our spirituality. It [gathering, processing, storing, sharing, consuming food] is our religion. We have to do it. We must continue. It is a culture we have to pass from generation to generation. We need it without interference from outside."¹⁸

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¹⁷ Inuit Tapiriit Kanatami and Inuit Circumpolar Council–Canada, *Inuit and the Right to Food*, 6.

¹⁸ Inuit Circumpolar Council–Alaska, *Alaskan Inuit Food Security Conceptual Framework*, 3.

Promoting Mental Wellness and Resilience in the Arctic

YUCHEN WANG

ABSTRACT

Mental illness is a cross-generational challenge in the Arctic. Suicide rates across circumpolar regions are currently among the highest in the world, with youth especially at risk.¹ In this short report, I will review the Arctic Council's past and current initiatives on mental wellness and offer a vision for the future of mental health programs.

INTRODUCTION

While mental health is a concern among different Arctic communities, Indigenous communities in particular are experiencing poor mental health.² Between 2000 and 2009, Chukotka in Russia, Greenland, and Nunavut in Canada had the highest age-standardized suicide rates.³ These are also regions with a high proportion of Indigenous peoples – approximately 30 percent in Chukotka, 90 percent in Greenland, and 85 percent in Nunavut.⁴ While suicide statistics are key indicators of mental health status in the Arctic, they do not provide the entire picture of a community's mental well-being: “for every suicide there are many more suicide attempts and individuals harboring suicidal thoughts.”⁵ Given that the Arctic Council made a commitment to improve “the well-being of the inhabitants of the Arctic” in the 1996 Ottawa Declaration,⁶ and has continued to express the importance of addressing mental health issues, the Council should facilitate concrete resilience-building efforts, with more attention to Indigenous communities in Chukotka, Greenland, and Nunavut. This paper reviews some key scholarly insights on how to address mental health in the Arctic, which could inform Arctic Council initiatives, and concludes by offering actionable recommendations for the Arctic Council.

BACKGROUND

Mental wellness has been a consistent issue on recent Arctic Council's agendas. 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.”⁷ At the presentation of the US chairship in April 2015, US Secretary of State John Kerry emphasized the United States' continuous efforts to improve the lives of the Arctic people, part of which includes “creating tools to improve mental health.”⁸ Therefore, mental wellness in the Arctic continues to be a critical issue under the US chairship.

In 2015 the Sustainable Development Working Group (SDWG) published a report called *Sharing Hope: Circumpolar Perspectives on Promising Practices for Promoting Mental Wellness and Resilience*, which highlights case studies across

¹ Sustainable Development Working Group (SDWG), *Sharing Hope: Circumpolar Perspectives on Promising Practices for Promoting Mental Wellness and Resilience* (SDWG, 2015), vi, <https://oaarchive.arcticcouncil.org/handle/11374/411>.

² Joan Nymand Larsen and Gail Fondahl, eds., *Arctic Human Development Report II: Regional Processes & Global Linkages* (Copenhagen: Nordisk Ministerråd, 2015), 300, <http://norden.divaportal.org/smash/record.jsf?pid=diva2%3A788965&dswid=-2984>.

³ T. Kue Young, Boris Revich, and Leena Soininen, “Suicide in Circumpolar Regions: An Introduction and Overview,” *International Journal of Circumpolar Health* 74 (2015): 2, <http://www.circumpolarhealthjournal.net/index.php/ijch/article/view/27349>.

⁴ Ibid.

⁵ Sustainable Development Working Group, “SDWG Mandate,” accessed February 9, 2016, <http://www.sdwg.org/about-us/mandate-and-work-plan/>.

⁶ Arctic Council, “Declaration on the Establishment of the Arctic Council,” September 19, 1996, http://library.arcticportal.org/1270/1/ottawa_decl_1996-3..pdf.

⁷ Arctic Council, “Iqaluit Declaration 2015,” April 24, 2015, <https://oaarchive.arctic-council.org/handle/11374/662>.

⁸ 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,” April 24, 2015, <https://oaarchive.arcticcouncil.org/handle/11374/913>.

six Arctic communities and emphasizes the importance of having culturally grounded, community-based solutions to suicide in Indigenous Arctic communities.⁹ Under the current US chairship, the SDWG has the agenda to operate the “One Health” approach, which evaluates the well-being of Arctic human, animals, and the environment to gain a holistic picture of health status in the North.¹⁰ This approach may help the Arctic Council link its mental health initiatives to Arctic communities’ historical, cultural, and spiritual connection to nature and the land. Another initiative under the US chairship, the Reducing the Incidence of Suicide in Indigenous Groups – Strengths United through Networks (RISING SUN) program, is working to create common metrics for evaluating suicide prevention efforts in the Arctic, in hope of upscaling interventions in the future.¹¹ RISING SUN aims to generate shared knowledge that will aid health workers in better serving their communities, and help policymakers identify regional and cultural challenges to the implementation of mental health programs.¹²

The Arctic Council’s mental wellness initiatives are significant, but with the exception of suicide prevention, mental health programs in the Arctic lack rigorous evaluation, including tracking mechanisms to measure short and long-term outcomes.¹³ Michael Kral, a clinical-community-cultural psychologist and medical anthropologist, observes a polarization between Western psychiatric and Indigenous methods of healing. As he suggests, government-based intervention approaches to mental health are not working well in the North, and traditional cultural healing practices often take place outside of the mainstream clinics in Arctic communities.¹⁴ Such polarization reflects the lack of feedback from Indigenous communities in the Arctic Council’s current tracking mechanism of mental health initiatives. Olga Ulturgasheva, an ethnographic researcher on childhood and adolescence, reindeer herding, and hunting in Siberia and Alaska, introduces a sliding scale model of “positive” and “negative” influences that captures the fluctuation among Indigenous youth between resilience and vulnerability, based on timing, local situation, and the larger context of their community.¹⁵ While “positive” influences, such as family, friends, sharing, and native language, build resilience for Indigenous youth, “negative” influences, such as limited access to land, bullying, boredom, and violence, generate vulnerability.¹⁶ This model can be a solution to the polarization of Western and Indigenous approaches to healing and help policymakers incorporate cultural and communal elements in promoting mental wellness in the Arctic. These researchers, among others, emphasize that future mental wellness initiatives in the Arctic need to be community-driven, culturally relevant, and youth-focused.

Given the growing understanding of mental health in the Arctic, the Arctic Council has an opportunity to develop practical solutions in collaboration with local governments, Indigenous people, and health professionals.¹⁷

⁹ SDWG, *Sharing Hope*, vi.

¹⁰ Arctic Council, *Senior Arctic Officials’ Report to Ministers, Iqaluit, Canada, 24 April, 2015*, 73, <https://oaarchive.arctic-council.org/handle/11374/494>.

¹¹ SDWG, “Sustainable Development Working Group, Work Plan for 2015–2017,” accessed February 20, 2016, <http://www.sdwg.org/project/sdwg-work-plan/>.

¹² National Institute of Mental Health, “Reducing the Incidence of Suicide in Indigenous Groups – Strengths United through Networks (RISING SUN),” accessed July 4, 2016, <http://www.nimh.nih.gov/about/organization/gmh/risingsun/index.shtml>.

¹³ Young, Revich, and Soininen, “Suicide in Circumpolar Regions,” 7.

¹⁴ Michael J. Kral, “Postcolonial Suicide among Inuit in Arctic Canada,” *Culture, Medicine & Psychiatry* 36, no. 2 (2012): 319, doi: 10.1007/s11013-012-9253-3.

¹⁵ 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), doi: 10.1177/1363461514547120.

¹⁶ Ibid.

¹⁷ SDWG, *Sharing Hope*, vi.

CONCLUDING THOUGHTS

Based on the analysis of the Arctic Council's past achievements, current best practices, and future agenda to promote mental wellness in the Arctic, I would suggest the following three policy options:

1. The SDWG should establish a measurement standard to track the impact of mental wellness initiatives. These measurement standards might consider the following factors: number of community members served, feedback from participants, scalability, and required operational resources.
2. Arctic States should build funding mechanisms to support Indigenous communities to self-develop mental wellness projects. Funds can specifically support Indigenous organizations to upscale successful projects that focus on building resilience in youth.
3. The Arctic Council should voice the urgency of addressing mental illness in Chukotka, Greenland, and Nunavut, and advocate community-based, culturally relevant, and youthfocused solutions.

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Postsecondary Educational Opportunities for Inuit in the Arctic

ELIZABETH CASTRO

SUMMARY

The Inuit Circumpolar Conference (ICC),¹ one of the precursors to the Arctic Council, was one of the earliest proponents of an Inuit university.² During its 1977 conference, the ICC called for the establishment of an International Committee for Inuit Education, Culture and Language to, among other things, “explore the possibility for an Inuit university.”³ Today, promising initiatives, including education reports, a feasibility study, and recognition in Arctic discourse, are turning the possibility of an Inuit-inclusive university in the Canadian Arctic into a reality. The Arctic Council’s Sustainable Development Working Group (SDWG) and the University of the Arctic are part of the existing infrastructure upon which an Inuit-inclusive university can build upon for visibility and collaborations in the Arctic Council.

INTRODUCTION

Arctic- and Inuit-centered postsecondary education is critical in the Canadian Arctic. Today’s Inuit students are emerging leaders who are set to become vocal participants in the Arctic Council. Among Inuit aged 25 to 64 in Canada, only 5.1 percent have a university degree.⁴ Although educational needs and population vary among Arctic countries, Canada is the only country that does not have a university in its Arctic region. Inuit homeland in the Canadian Arctic includes territories such as Nunavut, where approximately 30,000 individuals reside across 27 isolated communities.⁵ While “the numbers vary from community to community, roughly three in four Inuit children who enter school will not complete Grade 12.”⁶ An Inuit-inclusive university, which would reflect Inuit philosophies of education and traditional knowledge, could provide greater incentive for Inuit students to complete high school and continue their education in the Arctic. Through the conservation of Inuit language and values, an Inuit-inclusive university could mirror Inuit student experience through curriculum, research, the land, and amongst faculty, peers, and Elders.

BACKGROUND

The Arctic Council’s commitment to including the voices of Indigenous communities in Arctic dialogue aligns with the Canadian interest in an Inuit-inclusive university. The 2015 Iqaluit Declaration recognizes the importance of resources for youth and Indigenous education. As the Declaration states, Ministers and representatives “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.”⁷ Thus, the Iqaluit Declaration affirms a willingness to commit to new

¹ The Inuit Circumpolar Council began as the Inuit Circumpolar Conference.

² Elected Officials of the First Meeting of the Inuit Circumpolar Conference, “First Inuit Circumpolar Conference June 1977,” *ICC Booklet: Inuit Circumpolar Conference June 1977*, accessed February 19, 2016, <http://www.ebenhopson.com/icc/iccbooklet.html>.

³ Elected Officials of the First Meeting of the Inuit Circumpolar Conference, Resolution 77-04.

⁴ Statistics Canada, “The Educational Attainment of Aboriginal Peoples in Canada,” accessed July 7, 2016, https://www12.statcan.gc.ca/nhs-enm/2011/as-sa/99-012-x/99-012-x2011003_3-eng.cfm.

⁵ Thomas R. Berger, *Conciliator’s Final Report: “The Nunavut Project”* (Nunavut Land Claims Agreement Implementation Contract Negotiations for the Second Planning Period 2003–2013, March 1, 2006), 23, <http://www.tunngavik.com/documents/publications/2006-03-01%20Thomas%20Berger%20Final%20Report%20ENG.pdf>.

⁶ National Committee on Inuit Education, *First Canadians, Canadians First: National Strategy on Inuit Education 2011* (Ottawa: National Committee on Inuit Education, 2011), 93.

⁷ Arctic Council, “Iqaluit Declaration 2015,” April 24, 2015, <https://oaarchive.arctic-council.org/handle/11374/662>.

research and projects affecting youth. Further, the 2015 installment of the Arctic Council–sponsored *Arctic Human Development Report* recognizes the ideas espoused in “indigenous controlled education systems,”⁸ bolstering education as a circumpolar issue.

Several recent Canadian initiatives support the establishment of a university specifically for Inuit, including the National Strategy on Inuit Education (NSIE), which made creating an Inuit university one of their core recommendations in their 2011 report.⁹ NSIE describes an Inuit university as not only an affirming space but also having potential for a “home base,” “intellectual home for Inuit scholarship,” and integrative of an “Inuit worldview.”¹⁰ Similarly, the 2015 *Inuit Nunangat University Workshop Report* emphasizes how Inuit values and languages can be channeled through a university that would serve Inuit.¹¹

One of the most promising initiatives for Inuit-inclusive university programs in the Arctic took shape in 2015. The Government of Nunavut commissioned a consulting firm to conduct a feasibility study for the creation of a university within its territory, one region of Inuit homeland.¹² Released in spring 2016, the feasibility study determined that a stand-alone university in Nunavut would not meet criteria for student enrollment, per standards set by a national body of Canadian universities.¹³ The study revealed steep infrastructure costs and an estimated tuition well above Canada’s annual average.¹⁴ Despite these barriers, the Government of Nunavut continues to seek to create university-level opportunities in the territory through alternative methods. In June 2016, Nunavut’s education minister, Paul Quassa, outlined to the legislature that the Government of Nunavut would “instead opt for a joint-venture partnership between Nunavut Arctic College and an established university.”¹⁵ The feasibility study delineates outreach efforts with Canadian universities to assess potential for collaboration with Nunavut Arctic College. The study notes, “a number [of institutions] came up with positive suggestions as to how the project could best move forward.”¹⁶ While new university programs depend on sustained interest in Nunavut, they can benefit greatly from the existing systems of the circumpolar Arctic Council.

Within the framework of the Arctic Council, two entities are especially poised to lend support to the development of Inuit-inclusive university programs in the Arctic: the SDWG and the University of the Arctic (UArctic), which holds Observer status in the Arctic Council. A prominent aspect of several SDWG projects is their oversight by Indigenous Permanent Participants.¹⁷ The SDWG project “Assessing, Monitoring and Promoting Arctic Indigenous Languages” is scheduled for continued research from 2015 to 2017. Led by the Inuit Circumpolar Council,¹⁸ this language assess-

⁸ Joan Nyman Larsen and Gail Fondahl, eds., *Arctic Human Development Report: Regional Processes and Global Linkages*, Nordic Council of Ministers Secretariat (Copenhagen: Nordisk Ministerraad, 2015), 352.

⁹ National Committee on Inuit Education, *First Canadians, Canadians First*, 73.

¹⁰ *Ibid.*, 88.

¹¹ Sheena Kennedy and Kelly Black et al., *Inuit Nunangat University Workshop Report* (May 2015), 2, <http://carleton.ca/3ci/wp-content/uploads/268011594-Inuit-Nunangat-University-Workshop-Report.pdf>.

¹² Sarah Rogers, “GN Awards Contract for Nunavut University Feasibility Study,” *Nunatsiaq Online*, October 29, 2015, http://www.nunatsiaqonline.ca/stories/article/65674gn_awards_contract_to_firm_to_prepare_feasibility_study_on_nunavut_u/.

¹³ “Student Enrollment Biggest Hurdle to Creation of Nunavut University: Study,” *Nunatsiaq Online*, June 16, 2016, http://www.nunatsiaqonline.ca/stories/article/65674student_enrollment_biggest_hurdle_to_creation_of_nunavut_university_st/; KPMG LLP, *Government of Nunavut University Feasibility Study*, April 19, 2016, http://gov.nu.ca/sites/default/files/university_feasibility_study_phase_2_report_web.pdf.

¹⁴ “Student Enrollment Biggest Hurdle.”

¹⁵ *Ibid.*

¹⁶ KPMG LLP, *Government of Nunavut University Feasibility Study*, 19.

¹⁷ Arctic Council, SDWG, “Work Plan for 2015–2017,” accessed February 20, 2016, <http://www.sdwg.org/project/sdwg-work-plan/>.

ment program could be an asset to Inuit-inclusive university programming, which would promote the preservation and teaching of Indigenous languages.

The UArctic network is comprised of educational institutions – universities, colleges, and research institutes – and includes postsecondary programs centered on Indigenous student inclusion.¹⁹ Dedicated to education in the Arctic, UArctic members are an important resource; they can consult on best practices in student recruitment and the assembly of funding. UArctic member universities, such as University of Winnipeg, University of Manitoba, and Vancouver Island University, were direct participants in the feasibility study of a university in Nunavut. As reported in case studies, these institutions align themselves with Indigenous education (University of Winnipeg) and Indigenization (University of Manitoba) in their strategic plans.²⁰ For a prospective Inuit-inclusive university program, the employment of Indigenous Elders to augment teaching and learning would affirm Indigenous inclusion. Vancouver Island University already uses this practice by employing eight Elders as “full-time faculty that inform curriculum and teaching.”²¹ In short, the existing infrastructure of the Arctic Council supports the establishment of an Inuit-inclusive university and would be a valuable resource for the development of programs in the Canadian Arctic.

CONCLUDING THOUGHTS

In light of recent momentum to develop a university in Canada’s Arctic region that can be Inuit-inclusive, this paper offers the following recommendations. First, the Social, Economic and Cultural Expert Group within the Arctic Council’s SDWG should highlight the results of the Nunavut Government’s mandated feasibility study on a university in Nunavut in 2016 SDWG meetings.²² Representatives of the SDWG should explore project development and research on an Inuit-inclusive university in the Arctic as it aligns with some of the goals in its ongoing projects on building capacity within Indigenous communities. Second, inviting Inuit student representatives to Arctic Council meetings would allow for student advocacy for the development of university programs to key policy shapers. Third, the University of the Arctic, and its member universities, particularly those with a focus on Indigenous student inclusion, can lend planning expertise. UArctic has the capacity to update Arctic Council meetings regarding these collaborations at the circumpolar level.

Serving more Inuit students in postsecondary programs has implications for Indigenous representation in Arctic diplomacy and stewardship. Inuit youth need educational spaces to increase the capacity of Indigenous peoples and Permanent Participants to address Inuit homeland and Arctic issues.

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¹⁸ Ibid.

¹⁹ UArctic International Secretariat, *UArctic Strategic Plan 2020* (Rovaniemi, Finland: University of Lapland, 2014), <http://www.uarctic.org/about-uarctic/strategic-plan/>; Kennedy and Black, *Inuit Nunangat University Workshop Report*, 5.

²⁰ KPMG LLP, *Government of Nunavut University Feasibility Study*, 22, 24.

²¹ Ibid., 25.

²² Arctic Council, SDWG, Social, Economic and Cultural Expert Group, “Mandate,” accessed February 20 2016, <http://www.sdwg.org/expert-groups/social-economic-and-cultural-expert-group/>.

Establishing a New Transportation Strategy in Nunavut to Promote Economic Development

JORDAN HABENICHT

SUMMARY

Economic development has been a key theme of the Arctic Council since its inception in 1996. The promotion of sustainable economic growth in Nunavut is particularly challenging given environmental and logistical issues. A viable transportation strategy that reliably connects communities in Nunavut will be essential to building a sustainable wage-based economy, promoting community-led growth, and improving the health of the communities.

INTRODUCTION

Both the Iqaluit Declaration of 2015 and the current US Arctic Council chairship priorities emphasize the need for responsible and sustainable economic development in the Arctic. Most contemporary economic development in the North American Arctic revolves around resource extraction activities, which account for around 30 percent of Nunavut's Gross Domestic Product (GDP).¹ While resource-extraction-based development has had many positive effects within communities, it is not a long-term economic strategy and does not create a healthy, diversified economy. Transportation is only one area of development that will need to be addressed in Nunavut if a sustainable wage-based economy is to be established.

BACKGROUND

The territory of Nunavut poses some unique challenges in developing a sustainable economy. While the 1993 Nunavut Land Claim Agreement created the largest Inuit-owned territory in Canada, Nunavut's population is relatively small, with around 30,000 inhabitants. Additionally, the geographical locations of communities have created a system where the primary methods of delivering basic necessities rely on local delivery by small air and maritime vehicles. As the transportation department in Nunavut has pointed 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."² This is not to say that Nunavut requires a superhighway or even a large-scale road network. Yet access to transportation infrastructure is going to become increasingly important as Nunavut moves forward. A previous plan had relied on the construction of a deep-water port in Iqaluit.³ This plan, however, would not have benefited the more isolated communities outside of Iqaluit. Thus, on March 2, 2016, Nunavut announced that it is officially scrapping its previous transportation strategy and is starting over as the original plan was outdated and lacked progress.⁴ As a new plan develops, a focus should be on providing communities greater market access. As of summer 2016, the Government of Nunavut is receiving federal assistance to improve air transportation facilities through runway improvements and installing new aids to navigation at Iqaluit

¹ Gérard Duhaime and Andrée Caron, "Ch. 2. The Economy of the Circumpolar Arctic," in *The Economy of the North* (Statistics Norway, 2006), 18, accessed March 3, 2016, http://www.ssb.no/a/english/publikasjoner/pdf/sa84_en/kap2.pdf.

² Methusalah Kunuk and Jim Stevens, "Nunavut Transportation System: Evolving for Nunavummiut and Their Economy," paper prepared for the Annual Conference of the Transportation Association of Canada, St. John's, NL, September 2003, <http://conf.tac-atc.ca/english/resourcecentre/readingroom/conference/conf2003/pdfs/kunuk.pdf>.

³ Aarluk Consulting Inc., Gartner Lee Limited, and Chris Anderson, *Strategic Plan for the Iqaluit Deep Water Port Project*, August 2005, <http://www.tunnngavik.com/documents/publications/2005-08-00 Iqaluit Deepwater Port Strategic Plan.pdf>.

⁴ Thomas Rohner, "Nunavut Plans to Scrap Transportation Strategy, Start Over," *Nunatsiaq Online*, March 2, 2016, http://www.nunatsiaqonline.ca/stories/article/65674nunavut_to_scrap_transportation_strategy_start_over/.

Airport. While improvements in small municipal airports will be beneficial in making these easier for pilots to deliver goods,⁵ these changes will do little to lower the cost of living. More basic transportation infrastructure, when combined with air and maritime transportation capabilities, could have widespread economic benefits. Cheaper transportation of goods will help to lower the prices of food and construction supplies, which is a major issue in the isolated communities of the North.

Economic development is not a new theme for the Arctic Council. Since the Council's inception in Ottawa in 1996, economic development has been a key goal for North American Arctic communities. This was further reaffirmed in the Iqaluit Declaration, which lists responsible economic development as one of the key goals.⁶ In addition, both Canada and the United States identified development as part of their themes during their Arctic Council chairships. Despite this being a common theme within the Council, economic development is often narrowly defined and strictly equated with a rise in GDP. Under this definition of economic development, Nunavut has been developing with GDP growth of 11.5 percent in 2013 and 6.2 percent in 2014.⁷ However, communities in Nunavut still lack sufficient access to basic infrastructure, education, telecommunications, and housing. These issues are holding Nunavut's economy back and will continue to do so until they are addressed. Development is a key issue for both the Arctic Council and Inuit communities themselves and will require work outside of GDP growth to achieve results. As a new transportation policy takes form alongside policies for economic growth, it should focus on addressing the needs of the communities over the desires of southern enterprises. The communities and people themselves will know where the greatest needs lie and should guide the development process.

Transportation strategies in the North American Arctic have, thus far, widely relied on maritime and air services to reach isolated communities. In the United States, current policies seek to establish deep-water ports, in addition to maritime support infrastructure such as aids to navigation, in anticipation of the opening of the Northwest Passage.⁸ This is in stark contrast to the European Arctic states. As Scott Stephenson points out, Norway is "already one of the most infrastructurally developed Arctic states."⁹ Additionally, Russia has established the Trans-Siberian Railway and is planning to expand rail access to the ports of Amderma and Indiga, both of which lie along Russia's northwest coast.¹⁰ Russia and Norway have been leaders in developing their Arctic regions, largely due to the importance of these areas for their economies. Both states rely heavily on oil and gas exports for their economies with about 20 percent of Russia's GDP and around 22 percent of Norway's GDP coming from oil exports alone.¹¹ This has led to a more developed Arctic region in these states. Thus, the European Arctic states could provide key expertise in developing and implementing a transportation strategy in Nunavut. Incorporating European experts and knowledge is directly in-line with the Arctic Council's and Inuit Circumpolar Council's efforts to achieve circumpolar cooperation.

⁵ Jean Sorensen, "Western Canadian Airports Get Billions in Upgrades," *Journal of Commerce*, September 11, 2015, <http://journalofcommerce.com/Infrastructure/News/2015/9/Western-Canadian-airports-get-billions-in-upgrades-1010077W/>.

⁶ Arctic Council, "Iqaluit Declaration," April 24, 2015, <https://oaarchive.arctic-council.org/handle/11374/662>.

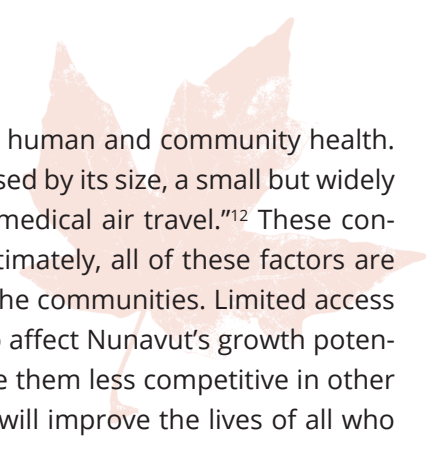
⁷ "Provincial and Territorial Real Gross Domestic Product by Industry Stats," Nunavut Bureau of Statistics, April 28, 2015, [http://www.stats.gov.nu.ca/Publications/Annual/Provincial-and-Territorial-Real-Gross-Domestic-Product-by-Industry-StatsUpdate,2014\(preliminary\).pdf](http://www.stats.gov.nu.ca/Publications/Annual/Provincial-and-Territorial-Real-Gross-Domestic-Product-by-Industry-StatsUpdate,2014(preliminary).pdf).

⁸ U.S. Committee on the Marine Transportation System, *A Ten-Year Prioritization of Infrastructure Needs in the U.S. Arctic* (Washington, DC, 2016), http://www.cmts.gov/downloads/NSAR_1.1.2_10-Year_MTS_Investment_Framework_Final_5_4_16.pdf.

⁹ Scott Stephenson, "Collaborative Infrastructures: A Roadmap for International Cooperation in the Arctic," *Arctic Yearbook 2012*, 311–33, http://stephenson.boi.ucla.edu/Stephenson_2012_AY.pdf.

¹⁰ *Ibid.*, 321.

¹¹ Rudiger Ahrend, "Can Russia Break the 'Resource Curse?'" *Eurasian Geography and Economics* 46, no. 8 (2005): 586; "Norway," European Commission Directorate-General for Trade, April 29, 2016, <http://ec.europa.eu/trade/policy/countries-and-regions/countries/norway/>.



Finally, improved transportation infrastructure would also help in promoting better human and community health. As Nunavut's report on healthcare access states, "Nunavut faces additional costs caused by its size, a small but widely distributed population, and its traditional dependence on Southern hospitals and medical air travel."¹² These conditions lead to a higher cost for healthcare and limit access to medical services. Ultimately, all of these factors are impeding Nunavut's economic potential, as well as the human and social health of the communities. Limited access to healthcare and global markets combined with a high cost of living will continue to affect Nunavut's growth potential, in addition to increasing the costs of any exports from Nunavut, which will make them less competitive in other markets. Establishing a solid transportation strategy and putting communities first will improve the lives of all who call Nunavut home.

CONCLUDING THOUGHTS

The development of transportation infrastructure will be a challenge for Nunavut due to environmental and logistical constraints. As the territory develops its new transportation strategy, the focus should be on connecting communities to increase market access, which will help in lowering the cost of consumer goods, foods, and healthcare, as well as spur economic growth at the community level. Even though this is a tall order, Nunavut and Canada can look towards Europe, especially Norway and Russia, for solutions. European advisors could provide expertise on linking isolated Northern communities to each other as well as connecting the North as a whole to the global market. Finally, any transportation plan should be realistic and community-focused. Any transportation strategy is going to bring change with it, and as such, Inuit interests will need to be at the forefront of any future discussions.

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¹² Nunavut Tunngavik Incorporated, *Nunavut's Health System: Annual Report on the State of Inuit Culture and Society 07/08* (Iqaluit: Nunavut Tunngavik Incorporated, 2008), 19, [http://www.tunngavik.com/documents/publications/2007-2008 Annual Report on the State of Inuit Culture and Society \(English\).pdf](http://www.tunngavik.com/documents/publications/2007-2008%20Annual%20Report%20on%20the%20State%20of%20Inuit%20Culture%20and%20Society%20(English).pdf).

Reformation of the Arctic Council: The Changing Global Dynamics of the North

IVALENE LAOHAJARATSANG

SUMMARY

Changing political, economic, and social dynamics since the establishment of the Arctic Council in 1996 have dictated new roles and expectations for the Council. Thus, the existing structure of the Council is no longer sufficient to deal with modern Arctic issues. This paper addresses four main areas of improvement for the Arctic Council: the coordination of management; enforcement mechanisms; the relationship between policy recommendations and implementations; and Indigenous underrepresentation.

INTRODUCTION

The Arctic Council was originally founded as an intergovernmental organization whose primary purpose was to address environmental concerns in the Arctic region, with the participation of Indigenous groups. Twenty years later, however, shifting socioeconomic and political circumstances have dictated new roles and expectations for the Council; the Council no longer exclusively addresses environmental issues, but now handles a wide range of Arctic issues from Indigenous rights to security concerns. Gradually, the Arctic Council's challenges in dealing with current Arctic issues have become a topic of discussion among the international community of Arctic scholars. This paper addresses four potential areas of improvement for the Arctic Council often suggested by scholars: the coordination of management; enforcement mechanisms; the relationship between policy recommendations and implementations; and Indigenous underrepresentation.

BACKGROUND

A multilateral audit conducted by the Supreme Audit Institutions of several Member States, whose purpose was to assess the efficiency of the Arctic Council, found several challenges the Council's Working Groups face in prioritizing their work. These challenges alluded to the lack of coordination in management between the Member States.¹ The Member States' conflicting interests in terms of prioritizing Arctic issues often leads to inefficient resource allocations and lack of continuity of project implementations. Better coordination of management can ensure progress of projects and implementation of policy recommendations.

Currently, the non-binding structure of the Arctic Council means that it has no say over whether or how policy recommendations are implemented nationally and regionally. In turn, there are no mechanisms for tracking projects that originate with the Council. This limits the political influence of the Council and its potential to enact meaningful changes. Scholars such as Christoph Humrich and Oran Young have addressed the Council's need for more enforcement mechanisms,² asserting that while restructuring the Council as a legally binding entity might seem difficult, the

¹ Arctic Council, *The Arctic Council: Perspectives on A Changing Arctic, The Council's Work, And Key Challenges: A Joint Memorandum of a Multilateral Audit on the Arctic States' National Authorities' Work with the Arctic Council* (Anchorage, 2015), <https://oaarchive.arctic-council.org/handle/11374/1527>.

² Christoph Humrich, "Fragmented International Governance of Arctic Offshore Oil: Governance Challenges and Institutional Improvement," *Global Environmental Politics* 13, no. 3 (2013): 79–99, doi:10.1162/glep_a_00184; Oran Young, "Strengthening the Arctic Council" (unpublished paper).

Council can increase its political influence by strengthening existing arrangements, such as the Tracking Tool for Arctic Council Deliverables and Ongoing Work that was created under the Canadian chairship.³

The non-binding nature of the Council has encouraged the production of high-quality research and policy recommendations; paradoxically, however, these findings and recommendations are not being implemented because of the Council's non-binding structure. Member States and Permanent Participants have acknowledged this issue and expressed hope that the Council might become more policy-making rather than policy-shaping.⁴

Lastly, interviews conducted by our class with Indigenous representatives in Ottawa have revealed different perceptions on common Arctic issues between policymakers and Indigenous groups.⁵ For instance, Indigenous groups have expressed concerns that environmental protection programs suggested by the policymakers often disregard their traditional ways of life and cultural well-being. For the Council to effectively address Arctic issues, these differences need to be recognized and Indigenous voices need to be adequately represented within the Council. Currently, Permanent Participants face limited capacity to fully participate in the Council because of a lack of funding and support from Member States.⁶

The 2015 Iqaluit Declaration includes a section titled “Building a Stronger Arctic Council,” which acknowledges the Council's evolution in addressing new opportunities and challenges in the Arctic. This indicates a positive direction in which the Council acknowledges its shortcomings and expresses its desire and willingness to reform itself to meet changing world dynamics.

CONCLUDING THOUGHTS

In sum, the Arctic Council can strengthen itself by creating a system to identify common priorities between all Member States and Participants; creating a tracking system to ensure progress of projects and policy implementations; ensuring sufficient funding to increase Indigenous participation capacity; and including regional governments in its structure to ensure policy implementation on a regional level.

It is also important to note that these areas of improvements should not be considered shortcomings of the institution. Rather, changing global dynamics are dictating new roles and responsibilities for the Council and require the Council to reform itself to remain central to addressing modern Arctic issues.

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³ See, for example, *Arctic Council Deliverables and Ongoing Work: 2013–2015*, <https://oaarchive.arctic-council.org/handle/11374/1423>.

⁴ Arctic Council, *Vision for the Arctic* (Kiruna, Sweden, 2013), <https://oaarchive.arctic-council.org/handle/11374/287>.

⁵ Interviews with Indigenous representatives during the JSIS 495 Task Force trip to Ottawa, Canada, January 2016.

⁶ Arctic Council, *Statement by Ms Áile Javo, President of the Saami Council, on the Occasion of the Ninth Ministerial Meeting of the Arctic Council* (Iqaluit, 2015), <https://oaarchive.arctic-council.org/handle/11374/911>.





Part II: Henry M. Jackson School of International Studies International Policy Institute Arctic Fellows Program

INTRODUCTION

One Arctic and the US Chairship of the Arctic Council

NADINE C. FABBI

The new International Policy Institute in the Henry M. Jackson School of International Studies at the University of Washington has been established with a mission to generate original thinking on emerging topics in international affairs and bring a new and uniquely Pacific Northwest voice to the policy conversation. 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. Part of the work of the Institute is to train students to effectively engage with the international policy and decision-making community. The Arctic is one of four Institute initiatives (the others are cyber security, outer space, and religion).

In the 2015–16 academic year, seven International Policy Institute Arctic Fellows (UW graduate students) were identified from Marine and Environmental Affairs, the Jackson School's master's program in International Studies and Applied Master's, Geography, and the Task Force on the Arctic. These students participated in a weekly seminar in the 2016 spring quarter to discuss and analyze the Arctic and its role in international relations.

The course included a two-day workshop at the Wilson Center in Washington, DC, called "One Arctic: The US Chairmanship of the Arctic Council." There the students met and heard from the past and current Senior Arctic Officials for Canada and the United States (Susan Harper and Julia Gourley); international scholars, including the author of the most recent book on the

Arctic Council, Douglas Nord; practitioners in the field; and Indigenous leaders. These leaders included one of the founding visionaries of the Arctic Council and former chair of the Inuit Circumpolar Council, Rosemarie Kuptana, and the current president of the Aleut International Association, James Gamble. The students participated in a Twitter feed and had the opportunity to present their research to the attendees for feedback.

I hope you enjoy the students' recommendations on an innovative set of topics: the need for fresh water indices across the Arctic; the relationship of the new Arctic Economic Council to Indigenous communities; how the model of



International Policy Institute (IPI) Arctic Fellows had the opportunity to spend two days with scholars and policy experts at the Wilson Center in Washington, DC, in April 2016. From left, Jason Young, doctoral candidate, Geography; Jordan Habenicht, BA student, International Studies; Kira Siebert, Master's in Applied International Studies (MAAIS); Moh Kilani, MAAIS; Dr. Nadine Fabbi, Canadian Studies Center (IPI Advisor); Rachel Freeman, MA student, Marine and Environmental Affairs; Brandon Ray, MA student, International Studies; and Jay-Kwon Park, MA student, International Studies.



city diplomacy could play a role between Arctic communities and centers in the south; how South Korea and Singapore offer a model for effective relations with the Permanent Participant organizations; a bold recommendation for a restructuring of the Arctic Council to focus more on sustainable development; an analysis of some of the successful initiatives of the Council concerning energy security; and a strong recommendation that the role of the Permanent Participants be enhanced so that the Arctic Council remain effective and thrive in the future.

I am a doctoral candidate studying the Canadian Arctic. I can easily say that participation in the Arctic and International Relations Institute has been one of the most exciting opportunities of my graduate experience. No other event has given me such direct contact with the great visionaries of Arctic research and policy. The event was also a wonderful opportunity to build community with other UW graduate students and faculty studying policy and social issues in the Arctic. This is a rich and interdisciplinary community of scholars that will enrich the UW's leadership on Arctic issues.

– Jason Young, Geography

Nadine C. Fabbi serves as the Lead for the International Policy Institute Arctic Fellows program in the Jackson School and served as the instructor for the JSIS 600 offered in spring quarter 2016. This course and the study immersion experience in Washington, DC, were supported by funds from the International Policy Institute (funded by a grant from Carnegie Corporation of New York) and Canadian Studies Center (with Title VI grant funding, Office of Postsecondary Education, International Education Program Services, U.S. Department of Education).

The workshop in Washington, DC, contributed significantly to student learning. The workshop was sponsored by Trent University, the University of Washington, the World Policy Institute, and the Wilson Center. Trent University's School of the Study of Canada provided funding from a grant from the Social Science and Humanities Research Council of Canada. Sponsors at the University of Washington included the Henry M. Jackson School of International Studies; the U.S. Department of Education Title VI National Resource Centers in the Jackson School: the Canadian Studies Center, the Center for Global Studies, the Ellison Center for Russian, East European and Central Asian Studies, the Center for West European Studies, and the East Asia Center; the Jackson School's International Policy Institute; the University of Washington's Future of Ice initiative; and the Global Business Center in the Michael G. Foster School of Business. At the World Policy Institute, New York City, Arctic in Context was the key sponsor. The Polar Initiative at the Woodrow Wilson International Center for Scholars hosted the workshop. Trent University's Frost Centre for Canadian Studies and Indigenous Studies and Western Washington University's Canadian American Studies Centre have also contributed.

Assessing Freshwater Security in the Arctic: A Call for an Arctic-Specific Water Resources Index

RACHEL FREEMAN

ABSTRACT

The continued progression of global climate change will have serious implications for freshwater resources throughout the world. However, there remains a great deal of uncertainty as to how water resources will be affected by these trends at a local or watershed scale. This poses a significant concern for the Arctic region, which is inhabited by predominantly small, isolated communities, dependent on local watersheds for their basic needs. While many countries have adopted global indices to assess the vulnerability of their perspective water resources to climatic change, none of these measures are generalizable to the unique set of conditions present in the Arctic. Recently, a team of scientists developed the Arctic Water Resources Vulnerability Index (AWRVI), an Arctic-specific index designed to assess water resource vulnerability and community resilience at the appropriate local scale. While AWRVI requires further refinement, it serves as the best available technology for measuring Arctic water security. This paper draws upon evidence of climatic stress on water resources in the Arctic, and a comparison of AWRVI with existing large-scale water indices, as evidence for the need of the Arctic Council to officially adopt an Arctic-specific water index to address water security in the region.

INTRODUCTION

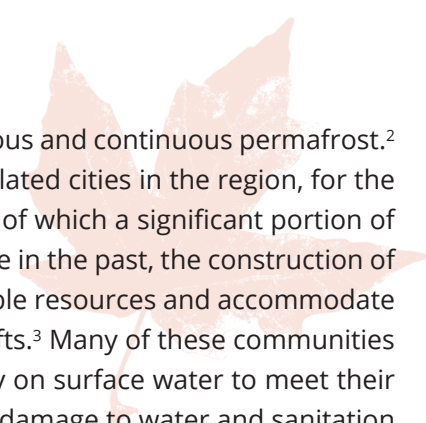
While the signs of future threats to freshwater security in the Arctic are clear, and in some cases already present, there remains a great deal of uncertainty about how these threats will impact individual communities and Arctic livelihoods. For these reasons, it is all the more critical for the Arctic Council to work collaboratively towards the adoption of a water resource index that will assess freshwater security and resilience in the Arctic and act as a tool to inform future policy decisions concerning Arctic health and sustainability. The evidence below supports the recommendation that AWRVI serve in this capacity as it continues to be refined to meet the needs of all Arctic communities throughout the region.

CLIMATE CHANGE AND WATER RESOURCES IN THE ARCTIC

While global climate change has had significant impacts on human society and the environment throughout the world, these changes have arguably been more intense in the Arctic. According to the Arctic Climate Impact Assessment (2004), the Arctic average temperature has risen at almost twice the rate as the rest of the world in the past few decades, with an increase in larger climatic shifts expected in the future.¹ This bears considerable implications for the future of water resources and community resilience in the region.

Unlike other areas of the world, the Arctic possesses a unique set of conditions that make it highly sensitive to various stresses on its natural environment, particularly in extremely remote communities like those of Nunavut territory in Canada and the Qaasuitsup municipality in Greenland. These characteristically isolated areas are often comprised of a combination of poorly developed infrastructure and high energy costs, an often limited abundance of liquid water

¹ Susan Hassol, *Impacts of a Warming Arctic: Arctic Climate Impact Assessment* (Cambridge: Cambridge University Press, 2004), 8.



much of the year, and perhaps most consequential of all, the presence of discontinuous and continuous permafrost.² While modernization has led to the development of a few urbanized, densely populated cities in the region, for the purposes of this paper, the Arctic refers to the predominantly isolated communities of which a significant portion of the area is comprised. Though many Arctic inhabitants maintained a nomadic lifestyle in the past, the construction of permanent establishments has required Arctic residents to “subsist on locally available resources and accommodate the local environment,” which are now experiencing rapid changes from climatic shifts.³ Many of these communities are built entirely on permanently frozen soil (permafrost), and residents tend to rely on surface water to meet their daily needs. Climate-change-induced permafrost degradation can cause irreparable damage to water and sanitation facilities, drain freshwater lakes, ponds, and rivers, and contaminate surface waters.⁴ Further evidence of the impacts of climate change on freshwater availability and quality include “melting glaciers, decreasing seasonal rates of precipitation, increasing evapotranspiration, and saltwater intrusion in lowland areas.”⁵ The presence of these effects is already apparent in many Arctic communities, as highlighted in the presentation on global climate and sustainability by Indigenous leader Rosemarie Kuptana at the May 2016 One Arctic Workshop in Washington, DC.

GLOBAL WATER INDICES

There are many tools and indices utilized throughout the world to assess water resource availability and vulnerability to change. However, these mechanisms tend to rely on measures of quantification exclusive of social measures that incorporate human interaction with and perception of water resources.⁶ The few indices that do incorporate a social dimension into their assessment methodology rarely operate on a scale more defined than that of a country or regional level, and do not account for Arctic-specific conditions.⁷ For example, the World Poverty Index (WPI) measures water stress at the household and community levels by assessing the following components: access to water, water quantity, quality, and variability, water uses, capacity for water management, and environmental aspects. However, like many other indices, the WPI lacks a measurement for assessing a community’s vulnerability to changes affecting its water resources.⁸ This creates a critical gap in available tools for assessing the state of Arctic water resource security for several reasons.

Many Arctic individuals and communities possess strong cultural ties with the water and land through which they subsist. Research suggests that social dynamics and cultural values associated with water may be inexorably linked to a community’s vulnerability and resilience to the stresses of climate change on those water resources.⁹ The intricate social-ecological relationships in the Arctic require a water resource index reflective of those connections. Moreover, the geographic isolation of many Arctic communities renders broad-scale indices inadequate, as they do not “provide fine-scale representation at the watershed scale in which communities operate.”¹⁰

² Lilian Alessa, Andrew Kliskey, Richard Lammers, Chris Arp, Dan White, Larry Hinzman, and Robert Busey, “The Arctic Water Resource Vulnerability Index: An Integrated Assessment Tool for Community Resilience and Vulnerability with Respect to Freshwater,” *Environmental Management* 42, no. 3 (2008): 523–41.

³ John A. Warren, James E. Berner, and Tine Curtis, “Climate Change and Human Health: Infrastructure Impacts to Small Remote Communities in the North,” *International Journal of Circumpolar Health* 64, no. 5 (2005): 488.

⁴ Alessa et al., “The Arctic Water Resource Vulnerability Index,” 7–9; Birgitta Evengard, Jim Berner, Michael Brubaker, Gert Mulvad, and Boris Revich, “Climate Change and Water Security with a Focus on the Arctic,” *Global Health Action* 4 (2011), doi: 10.3402/gha.v4i0.8449.

⁵ Evengard et al., “Climate Change and Water Security.”

⁶ Peter H. Gleick, “Basic Water Requirements for Human Activities: Meeting Basic Needs,” *Water International* 21, no. 2 (1996): 83–92; Peter Lawrence, Jeremy Meigh, and Caroline Sullivan, “The Water Poverty Index: An International Comparison,” *Keele Economics Research Papers* (October 2002), <http://econwpa.repec.org/eps/dev/papers/0211/0211003.pdf>.

⁷ Alessa et al., “The Arctic Water Resource Vulnerability Index,” 3–4.

⁸ A.L. Brenkert and E.L. Malone, “Modeling Vulnerability and Resilience to Climate Change: A Case Study of India and Indian States,” *Climatic Change* 72 (2005): 57–102.

⁹ Trefor Reynoldson, “The Development of Ecosystem Objectives for the Laurentian Great Lakes,” *Journal of Aquatic Ecosystem Health* 2, no. 2 (1993): 81–85; Lilian Alessa, Andrew Kliskey, and Paula Williams, “The Distancing Effect of Modernization on the Perception of Water Resources in Arctic Communities,” *Polar Geography* 30, no. 3/4 (2007): 175–91.

¹⁰ Alessa et al., “The Arctic Water Resource Vulnerability Index,” 4.

THE ARCTIC WATER RESOURCES VULNERABILITY INDEX (AWRVI)

Drs. Lilian Alessa and Andrew Kliskey (University of Idaho, Moscow), along with a team of researchers, developed the Arctic Water Resources Vulnerability Index (AWRVI) to fill in the aforementioned gaps in existing water indices and to accurately measure freshwater security in the Arctic.¹¹ The tool assesses resilience and vulnerability to change in freshwater resources through a number of physical and social indicators, selected based on their relevance to Arctic communities. The rationale for these criteria stems from the argument that “resilience to change in freshwater resources is a function of both the physical system that drives the functioning of water in the social-ecological system and the social system through which communities perceive, interact, and regulate water as a resource.”¹² The end goal is for AWRVI to be used by non-expert, community members living in the Arctic to assess their relative susceptibility to various changes in these indicators affecting their watersheds, allowing them to make informed decisions regarding the future use and management of their freshwater supplies.

Created in 2008, AWRVI still requires further refinement and, most importantly, support to succeed in its implementation goals. Thus far, the creators of AWRVI have only been provided the opportunity to test the tool in a handful of subarctic communities in Alaska and the Russian Far East. Furthermore, while the United States has briefly noted its support for AWRVI as a means of better understanding freshwater security in the Arctic through the “Improving Economic and Living Conditions in Arctic Communities” objective of its 2015–17 chairship,¹³ the index has not been unanimously adopted by all Arctic Council Member States. The importance that the Arctic Council attributes to traditional and local knowledge makes the unified support of an Arctic-specific water resources index – such as AWRVI – that takes those values into account all the more critical.

CONCLUDING REMARKS

While there are many tools currently available to assess water security on a broad level, AWRVI is the only existing water resources index that operates on a local watershed level, takes social dimensions into account, and caters to the unique social-ecological conditions of the Arctic. As the effects of climate change continue to intensify in the Arctic region, subsequent threats to freshwater supplies and Arctic livelihoods continue to grow. While the US Department of State’s website briefly mentions AWRVI in a general overview of the program for its Arctic Council chairship, the growing threat to Arctic freshwater security warrants a greater amount of visibility be afforded to the index by all Member States. As evidenced throughout this paper, the incorporation of AWRVI into an ongoing working group within the Arctic Council would greatly benefit future Arctic freshwater research and policy decisions. Increased support for the index could come in many forms, from the provision of funding for further development to the unified endorsement of the resource by all Council members as the tool of choice for assessing community resilience to changes in freshwater resources in the Arctic. While the former may be ideal, this paper suggests that even support in the form of the latter would go a long way for Arctic freshwater research, all the while operating within the boundaries of the financial and political limitations of this complex intergovernmental institution.

ACKNOWLEDGMENTS

Drs. Andrew Kliskey (University of Idaho, Moscow) and Nadine Fabbi (University of Washington) provided valuable input into this report.

¹¹ University of Idaho’s Center for Resilient Communities, “Arctic Water Resources Vulnerability Index,” accessed August 11, 2016, <https://www.uidaho.edu/caa/galleries-centers-and-labs/crc/research/awrvi>; Arctic Adaptation Exchange, “Arctic Water Resources Vulnerability Index (AWRVI) Tool,” accessed August 11, 2016, <http://arcticadaptationexchange.com/arctic-water-resources-vulnerability-index-awrvi-tool>.

¹² Alessa et al., “The Arctic Water Resource Vulnerability Index,” 4.

¹³ U.S. Department of State, “U.S. Chairmanship of the Arctic Council: Chairmanship Projects,” accessed June 1, 2016, <http://www.state.gov/e/oes/ocns/opa/arc/uschair/>.

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The Arctic Economic Council and Its Relationship to Arctic Indigenous Communities

JORDAN HABENICHT

SUMMARY

On April 13, 2016, the Arctic Economic Council (AEC) released foundational documents that provide an overview of the organization's future plans. The stated intentions of the AEC are to act as an advisor to the Arctic Council on economic issues and help facilitate sustainable development. While the foundational documents mainly cover the logistics of how the AEC will operate, the strategic plan also highlights its intentions. Although the AEC's focus is to promote sustainable economic development, the organization also should provide skills training and incentives to Arctic Indigenous-owned businesses.

BACKGROUND

The Arctic Economic Council was established on April 24, 2015 by the Iqaluit Declaration under the Canadian chairship. In the declaration, the Council "Welcome[s] the establishment of the Arctic Economic Council, and look[s] forward to developing a cooperative relationship with this body in order to increase responsible economic development for the benefit of the people of the Arctic."¹ This statement guides the AEC in developing the North for the people that reside there. In other words, development of these Arctic communities is for the benefit of Indigenous residents, which should take priority over the interests of other actors.

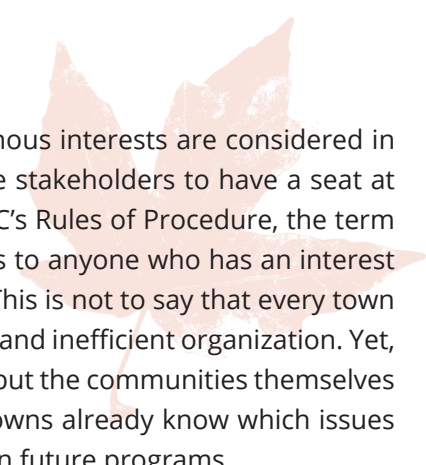
The Arctic Council promotes endogenous growth, which is the idea of investing in human capacity to foster development. Some may know of this strategy as "bottom-up development" in that it seeks to increase human security as a means of development. While these ideas are not a modern invention, they have begun to take a more central role in development policies. Economist Antonio Vázquez-Barquero explains that endogenous growth "considers development as a territorial process (not a functional process) that is methodologically based on case studies (not on cross-section analysis) and that considers development policies are more efficient when carried out by local actors (not by the central administrations)."² In other words, rather than relying on a single list of structural adjustments that depend on external actors to promote growth, development comes from the people themselves.

The AEC's strategic plan has three pillars: organizational, stewardship, and economic growth. Additionally, the plan includes five themes that will guide the AEC's recommendations to the Arctic Council: market connections, investment partnerships, regulation, sharing of data, and stewardship.³ This paper focuses on the stewardship and economic growth pillars because they highlight the intentions of the AEC. While the organization of the AEC will be important for efficient operation, this pillar is not explicitly concerned with achieving economic development and therefore is not relevant here.

¹ Arctic Council, "Iqaluit Declaration," April 24, 2015, <https://oaarchive.arctic-council.org/handle/11374/662>.

² Antonio Vázquez-Barquero, "Endogenous Development: Analytical and Policy Issues," in *Development on the Ground: Clusters, Networks and Regions in Emerging Economies*, ed. Allen J. Scott and Gioacchino Garofoli (New York: Routledge, 2007), 25.

³ Arctic Economic Council, "2016–2018 Strategic Planning Document," April 27, 2016, <http://arcticeconomiccouncil.com/wp-content/uploads/2016/04/AEC-Strategic-Plan-1.pdf>.



The second pillar of the AEC's plan, stewardship, seeks to ensure that Arctic Indigenous interests are considered in development plans. Specifically, the AEC states that it will "advocate for appropriate stakeholders to have a seat at the table on key Arctic decisions."⁴ However, under the definitions section of the AEC's Rules of Procedure, the term *stakeholder* is not defined.⁵ While it can be generally assumed that *stakeholder* refers to anyone who has an interest in Arctic matters, it lacks any direct reference to ensuring community participation. This is not to say that every town should have direct representation on the AEC, as that would create an overburdened and inefficient organization. Yet, under this pillar, Inuit are offered the opportunity to take part in AEC policy decision, but the communities themselves should be deciding which issues need to be addressed first. The citizens of Arctic towns already know which issues affect them most, but the AEC only provides a limited capacity for decision making on future programs.

As the AEC states under its stewardship pillar, its goal is "to set the foundation for collaboration and stewardship among Arctic stakeholders and members of the AEC."⁶ However, the stated goals seem to focus on a national level of decision making. This section refers to market connections, cross-border projects, and linking industry to academia, which will admittedly be crucial in promoting economic growth within the region, but the stewardship section overall lacks reference to direct Indigenous input and representation. It could be argued that the executive committee and the inclusion of Arctic Indigenous-owned businesses will provide adequate representation for Indigenous communities, but these stakeholders would provide limited engagement in addressing the other aspects of human security. For instance, the AEC does not list any goals for improving housing or lowering the cost of living within these communities. Both of these issues are well-documented problems in the Arctic and create a significant barrier to sustainable development. Cross-border projects will provide some opportunities for wage-based employment. However, strong market connections between Arctic States will primarily benefit national governments. In many ways, though, this is just the continuation of the idea that everyone benefits from trade, despite the fact that there is generally a group that does not benefit from these programs, such as the case with small family-operated maize farmers in Mexico being unable to compete against industrial-scale agriculture in the United States as a result of NAFTA.⁷

The third pillar of the AEC's plan is economic development and ensuring that it is achieved responsibly. It is important to note that this section does include attracting foreign direct investment (FDI). FDI not only provides additional sources for capital generation but could also give Observer States the opportunity to participate in promoting growth, which could provide Arctic communities with long-term benefits. However, one of the stated goals is to promote environmental stewardship and economic growth. While the plan also includes a goal to ensure that economic growth benefits impacted communities, it does not explain what this means. If by "benefit" the AEC is simply imagining a growth in the gross domestic product (GDP) of Arctic communities, then, arguably, this goal has already been mildly successful. As Ilmo Mäenpää points out, "Differences in disposable income per capita across Arctic countries are smaller than differences in GRP [Gross Regional Product] per capita, and the gap between Arctic and non-Arctic regions are considerably smaller than the difference in GRP per capita."⁸ However, the focus on environmental issues and the promotion of business fails, once again, to address human security. Oran Young reminds us that "Such considerations take on particular force when the numbers of those harmed are small and when the relevant

⁴ Ibid., 2.

⁵ Arctic Economic Council, "Rules of Procedure," April 13, 2016, <http://arcticeconomiccouncil.com/wp-content/uploads/2016/04/AEC-Rules-of-Procedure-1.pdf>.

⁶ Arctic Economic Council, "2016–2018 Strategic Planning Document."

⁷ James K. Boyce, "The Globalization of Market Failure: International Trade and Sustainable Agriculture," Political Economy Research Institute, University of Massachusetts, Amherst, 1999.

⁸ Ilmo Mäenpää, "Comparative Analysis of Arctic Economies at Macro Level," in *The Economy of the North* 2008, 30, accessed June 3, 2016, http://www.ssb.no/a/english/publikasjoner/pdf/sa112_en/kap3.pdf.

harms in question center on the status of ecosystems rather than on social welfare.”⁹ It is important to remember that Indigenous groups have fought to have a voice in the discussion of the Arctic, as it is their home and they must face the consequences of any actions that impact the North. There has been ample research done on the barriers to sustainable development, and many of the issues are those of human security needs. As such, it would behoove the AEC to include human security issues, specifically human and social development issues, within their plans. Healthy people and communities are what will bring about economic growth in the North rather than large-scale projects that benefit the central governments.

CONCLUDING THOUGHTS

The creation of the Arctic Economic Council signaled an important move forward for the Arctic Council. Prior to its creation, there was limited representation for economic development within the Arctic Council, despite it being a stated goal of the Council. However, there are three areas that the AEC should include in its strategic plan going forward. First, as stated above, human security should be included in the goals. Healthy communities will be key in promoting sustainable development. Ensuring human security is central not only to the success of specific economic development projects but also to meeting broader AEC goals. Second, sustainable development needs to include factors outside of environmental sustainability. This is not to say that environmental concerns are not important; they are crucial in the Arctic. However, if the communities are still facing human and social issues, development programs will fall short of their intended goals. Finally, the AEC needs to ensure that development plans do not rely solely on resource extraction activities. While mining projects, as well as oil and gas extraction, can provide substantial economic benefits to Arctic communities, they are a temporary solution. Commodity prices go through boom and bust cycles, which limit their long-term success and sustainability. Moreover, resource extraction is limited by quantity and will require projects in other sectors. A diversified economy will be essential in securing the future for the communities and people of the Arctic.

Jordan Habenicht is a recent graduate of the University of Washington's Jackson School of International Studies where he focused on the political economics of development in the Arctic. He also had the opportunity to assist in the relocation efforts of Newtok, Alaska, while serving with the US Army.

⁹ Oran R. Young, “Arctic Stewardship: Maintaining Regional Resilience in an Era of Global Change.” *Ethics & International Affairs* 26, no. 4 (2012): 415.

City Diplomacy and the Arctic: Pursuing City Diplomacy for Pragmatic Policymaking

MOH KILANI

ABSTRACT

This paper defines city diplomacy and explores its efficacy with examples from inside and outside the greater Arctic. City diplomacy is diplomacy between cities and other institutions of all sizes. It can include city-to-city agreements, such as the C40, a network of the world's megacities dedicated to climate change, wherein policy agreements are made multilaterally and implemented by each individual city. The paper presents general recommendations for implementing city diplomacy in the Arctic to support a more sustainable economy.

INTRODUCTION

This new political mode of city diplomacy is a catalyst for human well-being, Indigenous rights, and sustainable development to thrive in the Arctic. The Arctic is changing rapidly due to climate change, which presents opportunities and concerns. The permafrost is melting, greenhouse gas emissions are increasing, and marine ecosystems are changing with unclear consequences. At the same time, there are new opportunities as the Arctic is becoming more accessible to international shipping, infrastructural development, and natural resource utilization, including fisheries.¹ With this greater access, comes greater awareness of the across-the-board developmental challenges that have been largely ignored to date.

Rapid cooperative and sustainable development of the Arctic region could come to fruition via city diplomacy. Many problems relating to climate change, Indigenous rights, economic development, and human well-being can be dealt with at the level of the city and township. Policymaking at the level of the nation-state is generally removed from its constituents and disconnected both spatially and temporally. In other words, there is a gap in distance and time between national policymakers and the locus of implementation. The Arctic Council meets every six months, which leads to a serious lag time in policymaking as well as implementation and review.² For effective policy to be made, there must be an immediacy to the design, implementation, and review, which requires physical proximity.

CITY DIPLOMACY DEFINED

City diplomacy is a type of subnationalism wherein government actors at the level of the city interact with their counterparts, nationally and internationally, for economic, cultural, educational, or other agreements.³ For the purposes of this paper, city diplomacy will refer to diplomatic agreements between cities, towns, regions, and Indigenous groups. In short, all government actors from the level of the city and lower (e.g., townships and villages) are considered to be under the umbrella of city diplomacy.

¹ Charles Emmerson and Glada Lahn, *Arctic Opening: Opportunity and Risk in the High North* (Lloyd's and Chatham House, 2012), <https://www.chathamhouse.org/sites/files/chathamhouse/public/Research/Energy,%20Environment%20and%20Development/0412arctic.pdf>.

² Timo Koivurova, Paula Kankaanpää, and Adam Stepień, "Innovative Environmental Protection: Lessons from the Arctic," *Journal of Environmental Law* 27, no. 2 (2015): 285–311; Arctic Council, Twitter post, July 15, 2016, 2:15 a.m., <https://twitter.com/arcticcouncil/status/753880614504456192>.

³ Benjamin R. Barber, *If Mayors Ruled the World: Dysfunctional Nations, Rising Cities* (New Haven, CT: Yale University Press, 2013), 5–6; Rogier van der Pluijm and Jan Melissen, "City Diplomacy: The Expanding Role of Cities in International Politics," Clingendael Diplomacy Papers no. 10, Institute of International Relations, The Hague, Netherlands, 2007, 11, https://www.uclg.org/sites/default/files/20070400_cdsp_paper_pluijm.pdf.

City diplomacy is a more fluid, faster-moving policy mechanism than state or nation-state diplomacy for several reasons: stakeholders have closer proximity to the issues at hand; there is less bureaucracy; and there is no emphasis on state security. In relation to the Arctic, city diplomacy presents a potentially more direct way to bridge Arctic scholarship and impactful policymaking.

There are numerous examples of city diplomacy, and it is increasing in popularity as a policymaking tool.⁴ Unlike nation-states, or other transnational bodies, such as the Arctic Council, whose members are nation-states, cities do not base their political concerns on issues such as state security.⁵ As a result, their policy considerations more generally reflect community needs such as the economic or educational status of their constituency. Given the efficacy of city diplomacy, Arctic policymakers can look to this new model for pragmatic solutions to seemingly intractable problems. In short, I posit that an organization akin to the Arctic Council or the Northern Forum applied at the city level would have far greater potential to create effective solutions to problems in the Arctic than national and international organizations.

THE C40

A prime example of city diplomacy is the C40 Cities Climate Leadership Group, a transnational group of 83 cities, including Seattle, Vancouver, Washington (DC), Beijing, Shanghai, Singapore, Seoul, Shenzhen, Tokyo, Oslo, and Stockholm, dedicated to addressing climate change. The C40 cities account for one-twelfth of the world's population or roughly 500 million people.⁶

In 2006 the C40 was brought together as an amalgamation of two organizations: the C40 Climate Leadership Group and Clinton Climate Initiative. Within two years, under the leadership of Toronto, they had two programs developed: the Climate Positive Development Program and the Carbon Finance Capacity Building program. In 2012 the C40 announced that by 2020 their current efforts would reduce global greenhouse gas emissions by 248 million tons annually.⁷

The C40 is a cross-sectoral organization, where academia, the private sector, and the public sector create sustainable solutions to climate issues. Faster, more efficient, and less bureaucratic than initiatives at the country or state level, the C40 is a perfect example of what cross-sectoral city diplomacy can tangibly achieve.

CURRENT CITY DIPLOMACY IN THE ARCTIC

City diplomacy has been used in the European and Russian Arctic as a means of problem solving and implementing sustainable development initiatives such as the Nenets Autonomous District's renewable energy sector and the planned US-Russian Beringia biodiversity park.⁸ However, this trend of city diplomacy has yet to be used with Canadian or American cities. Northern Russian cities signed hundreds of international agreements in the post-Soviet period.⁹ Some of these agreements included establishing representative offices, accommodating trade missions, attracting foreign investment, creating positive global image, cooperating with international organizations, increasing cultural

⁴ Barber, *If Mayors Ruled the World*, 5.

⁵ Pertti Joenniemi et al., "Russian Subnational Actors: Paradiplomacies in the European and Russian Arctic," in *Future Security of the Global Arctic: State Policy, Economic Security and Climate*, ed. Lassi Heininen (New York: Palgrave Macmillan, 2016), 56–59.

⁶ "Addition of Auckland Brings C40's Global Membership to 83 Cities," *C40 Blog*, December 22, 2015, http://www.c40.org/blog_posts/addition-of-auckland-brings-c40-s-global-membership-to-83-cities.

⁷ "2012 in Review: Cities Commit to (and Are Achieving) GHG Reductions," *C40 Blog*, December 31, 2015, http://www.c40.org/blog_posts/2012-in-review-cities-commit-to-and-are-achieving-ghg-reductions.

⁸ Joenniemi et al., "Russian Subnational Actors," 62.

⁹ *Ibid.*, 60.

familiarity, and city-twinning (which promotes cultural and commercial ties between geographically and political distinct areas).¹⁰

Specifically, Arkhangelsk and Murmansk, two very prominent Russian Arctic cities, have persistently pursued city diplomacy. The city of Arkhangelsk has twin-city agreements with Sweden (Ljusdal and Kiruna), Norway (Vardo), and Finland (Oulu).¹¹ Similarly, Murmansk, the most populous Arctic city, has multiple twin-cities in several countries, including Iceland (Akureyri), Sweden (Lulea), Finland (Rovaniemi), and Norway (Vardo and Tromso).¹² Murmansk is also part of the Russian-Finnish intergovernmental agreement on multilateral cooperation.

ARCTIC INTERESTS AND CITY DIPLOMACY

City diplomacy – Arctic cities, townships, non-state actors, business organizations, and Indigenous groups working together as seamlessly as possible – could be a more effective strategy of policymaking for development in the Arctic. Essentially, this is the combination of Timo Koivurova's epistemic community with city diplomacy.¹³ Peter Haas defines an *epistemic community* as "a network of professionals with recognised expertise and competence in a particular domain and an authoritative claim to policy relevant knowledge within that domain or issue-area."¹⁴ City-to-city agreements are faster to create and implement, and more effectively reflect the needs and discourse of their inhabitants. At the level of the state or nation-state, the authentic discourse is often lost in transmission or superseded by national interests.

By examining current city diplomatic initiatives, such as the C40, policymakers may establish a pathway for an Arctic city diplomacy agreement. An Arctic agreement of this nature would not only highlight the existing positives of Arctic policy to date, including scientifically based policymaking, regional cooperation, demilitarization, and Indigenous inclusion, but it would also give weight to the notion of city diplomacy globally. This may create a paradigm shift in international regimes, where cooperation, empirical science, and inclusion are the fundamentals of locally made and implemented policy.

RECOMMENDATIONS

Subnational policymakers, such as mayors of major Arctic cities and cities that are heavily tied to the Arctic (e.g., Seattle), could reach out to their counterparts to examine the potential of what we might refer to as an Arctic City Diplomacy Initiative. This initiative could include the private sector, academia, NGOs, and Indigenous groups, with the explicit and stated goal of creating inclusive, sustainable development. Additionally, smaller townships and dispersed Indigenous communities could be included as aggregate networks with permanent participation, much like in the Arctic Council, but with greater weight because of physical proximity. The sum of this would result in policymaking that takes into immediate consideration the constituents and stakeholders of the locality, through a proven policymaking mechanism.

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¹⁰ Ibid., 61.

¹¹ Ibid., 60.

¹² Ibid.

¹³ Koivurova, Kankaanpää, and Stépien, "Innovative Environmental Protection," 3.

¹⁴ Peter M. Haas, "Introduction: Epistemic Communities and International Policy Coordination," *International Organization* 46, no. 1 (1992): 1–35, doi: 10.1017/S0020818300001442.

South Korea, Singapore, and the Permanent Participants: Innovative Approaches to Observer Status on the Arctic Council

JAY-KWON JAMES PARK

ABSTRACT

Since its establishment in 1996, the Arctic Council has played a central role in easing tension and increasing collaboration and cooperation among Arctic States and stakeholders in the Arctic. A multilateral organization with flexible structure, the Council has evolved significantly since 2013 when the decision to include new non-Arctic states, including five Asian Observer States, as Observers was made. Although there have been different opinions about having non-Arctic Observer States involved in Arctic affairs, it is undeniable that some of the work done by these new Observers has been valuable in building positive relationships between Arctic and non-Arctic stakeholders. This paper focuses on Singaporean and Korean governments' unique approaches to enhancing relationships in the Arctic region and with Arctic Indigenous groups.

INTRODUCTION

As global interest in the Arctic has increased, the Arctic Council, a high-level intergovernmental forum that shapes decisions and policies on the Arctic region with its Member States, Permanent Participants, and Observer States, has garnered substantial attention. Compared to other intergovernmental organizations, the Arctic Council is unique because it has a flexible structure and lacks rigid internal design.¹ What makes the Arctic Council even more distinct is the inclusion of the Arctic Indigenous groups as Permanent Participants that have the power to influence decisions made within the Arctic Council.

As of 2016, with the inclusion of six new non-Arctic Observers in 2013, the Arctic Council currently has 12 non-Arctic Observer States, 6 Permanent Participants, and 8 Arctic Member States. For a non-Arctic state to become an Observer it must "contribute to the work of the Permanent Participants and other Arctic indigenous people."² However, because of sovereignty concerns on the part of the Arctic nation-states, the Arctic Council has added a paragraph in the *Observer Manual* that reads, "total financial contributions from all Observers to any given project may not exceed the financing from Arctic States."³ Due to such regulations, some Observer States "only exist on paper" and neither support the Permanent Participants nor participate in Arctic affairs.⁴ Even with such limitations, among 12 Observers, the Republic of Korea and Singapore have been successful not only in increasing their presence in the Arctic but also in supporting the Permanent Participants in unique ways. Both Korea and Singapore, once third-world countries, were well aware that developing human resources is crucial for the Permanent Participants to have more influence in Arctic affairs. To support the Permanent Participants, as well as to build trust between them, the two countries have been focusing on

¹ Timo Koivurova, Paula Kankaanpää, and Adam Stępień, "Innovative Environmental Protection: Lessons from the Arctic," *Journal of Environmental Law* 27, no. 2 (2015): 285–311.

² "Observers," *Arctic Council*, July 28, 2016, <http://www.arctic-council.org/index.php/en/about-us/arctic-council/observers>.

³ Arctic Council, *Arctic Council Observer Manual for Subsidiary Bodies*, 7.5.

⁴ Sebastian Knecht, "New Observers Queuing Up: Why the Arctic Council Should Expand – and Expel," *The Arctic Institute*, April 20, 2015, <http://www.thearcticinstitute.org/new-observers-queuing-up/>.

supporting the Permanent Participants by providing educational aid and by working on meaningful projects, such as the Arctic Marine Indigenous Use Mapping, with them.

SINGAPOREAN APPROACH TO THE PERMANENT PARTICIPANTS

Since becoming an Observer State in 2013, Singapore has been participating in Arctic affairs by providing educational support to the Permanent Participants and visiting different places in the Arctic to discuss the future of the Arctic. Singaporean representatives from the Ministry of State and the Ministry of Manpower have been visiting Arctic States such as Iceland, Greenland, and Norway to express Singapore's interest in the Arctic and its political will to support the Permanent Participants.⁵ Since Singapore's acceptance in the Arctic Council, the Singapore government has been providing scholarships to the Arctic Indigenous students to study in Singapore. It also has been organizing the Arctic exhibitions by partnering with Arctic States and Permanent Participants. Singapore's hosting of the Arctic exhibitions is a unique approach to raising the awareness of the Arctic region among Singaporeans.⁶ Climate change – namely, melting ice caps – in the Arctic is a significant concern for Singapore as the country lies only about 15 meters above sea level. In other words, its vulnerability to a rise in sea level means that Singapore has a stake in what happens in the Arctic.⁷ Thus, by connecting the Arctic to Singapore's national concerns about climate change, the Singaporean government is not only promoting the importance of the Arctic region and the lives of the Arctic Indigenous people, but is also raising the awareness of the threat of climate change to the nation. Also, because Singapore is working collaboratively with the Arctic Member States, such as Norway and Canada, to realize different Arctic exhibitions, Singapore is building trust among Arctic Member States.

Like the Korea Development Institute, which provides educational support to developing countries through its Knowledge Sharing Program, Singapore has been providing scholarships to the Permanent Participants in the Arctic region.⁸ Singapore has been prioritizing the development of human resources. By partnering with the University of the Arctic, Singapore has been providing the Singapore-Arctic Council Permanent Participants Cooperation Package, a scholarship for Indigenous students who are willing to take master's programs in Singapore through the Singapore Cooperation Programme (SCP).⁹ The SCP's primary goal is to share Singapore's developmental strategy to support developing countries and Indigenous groups. Thus, its master's programs focus on public policy, public administration, and maritime studies, which are meant to provide critical tools for Permanent Participants to increase their influence in Arctic affairs and raise their overall standard of living.

KOREAN APPROACH TO THE PERMANENT PARTICIPANTS

After serving as an ad hoc Observer in the Arctic Council in 2008, the Republic of Korea also officially became an Observer State in 2013. Korea, along with the other Observer States, has been participating in Task Force meetings and different projects laid out by the Arctic Council's subsidiary bodies. What is distinct about Korea's involvement in Arctic affairs is that Korea has been working directly with the Permanent Participants and promoting collaborative work among the Observer States. For example, in April 2016 Korea hosted trilateral talks with China and Japan to discuss

⁵ "MFA Press Statement: Visit of Senior Parliamentary Secretary for Foreign Affairs and Culture, Community and Youth Mr. Sam Tan to Reykjavik, Iceland from 11 to 14 October 2013," Ministry of Foreign Affairs, Singapore, October 14, 2013, https://www.mfa.gov.sg/content/mfa/media_centre/press_room/pr/2013/201310/press_20131014_01.html.

⁶ See, for example, a past photo exhibit called *Explore the Arctic: Past, Present and Future*, hosted by the Science Center Singapore (accessed September 4, 2016, <http://www.science.edu.sg/exhibitions/Pages/ExploretheArctic.aspx>).

⁷ Jason Tan, "Why the Icy Arctic Matters to S'pore," *Today*, June 10, 2016, <http://m.todayonline.com/world/why-icy-arctic-matters-spore>.

⁸ "KSP Is...Korea and Knowledge Sharing," *Knowledge Sharing Program*, accessed July 19, 2016, <http://www.ksp.go.kr/ksp/ksp.jsp>.

⁹ "Postgraduate Scholarships in Singapore for Arctic Indigenous Students," *UArctic*, May 22, 2015, <http://www.uarctic.org/news/2015/5/postgraduate-scholarships-in-singapore-for-arctic-indigenous-students/>.

sustainable development and scientific cooperation in the Arctic.¹⁰ These trilateral talks were one of the first major initiatives taken by the Asian Observer States to share their views on the Arctic and draw collaborative agreements.

Korea realizes the need to provide support to the Permanent Participants and has been working with them in various ways. Since 2015, the Korea Maritime Institute (KMI) and the University of the Arctic have been sponsoring an annual Korea Arctic Academy, which invites 20 Arctic Indigenous students to Korea for a week-long exchange program. During the program, students from the Permanent Participants exchange ideas with Korean scholars on topics such as Arctic governance and Indigenous worldviews.¹¹ Knowing that top-down approaches have often failed to support Indigenous groups, Korea has been hosting this exchange program to better understand Indigenous needs and knowledge, and to provide genuine support.

Korea has also been working directly with the Permanent Participants. Korea became the first Asian Observer to participate in a project under the Protection of the Arctic Marine Environment (PAME) Working Group. KMI has been working with the Aleut International Association on the Arctic Marine Indigenous Use Mapping project by providing financial support and professionals.¹² Through working with the AIA, Korea not only aims to build trust and a good relationship with the AIA for further cooperation, but it also hopes to improve daily life of Aleuts living in Aleutian Islands.

CONCLUSION

One of the core values of the US Arctic Council chairship is cooperation among the Permanent Participants and other states involved in Arctic affairs. As relatively new non-Arctic Observer States, Korea and Singapore have contributed to this US chairship value by seeking to build reciprocal relationships with Permanent Participants. Supporting the Permanent Participants is a key requirement for the non-Arctic states to maintain their Observer status. Yet not many Observer States are actively working towards this requirement. Other Observer States should look to Singapore and Korea for models of programming that support not only relationship building but also the capacity of Permanent Participants themselves.

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¹⁰ Sang-Ho Song, "S. Korea, Japan, China Hold Talks on Arctic Affairs," Yonhapnews, April 28, 2016, <http://english.yonhapnews.co.kr/news/2016/04/28/0200000000AEN20160428003500315.html>.

¹¹ "Korea Arctic Academy," UArctic, accessed July 20, 2016, <http://education.uarctic.org/mobility/korea-arctic-academy/>.

¹² Chang Lou-Chung, "Korea Builds Database on Arctic Marine Use," *Korea.net*, March 10, 2016, <http://www.korea.net/NewsFocus/Policies/view?articleId=133663>.

Reframing Sustainable Development in the Arctic Council

BRANDON RAY

ABSTRACT

The Arctic Council struggles between two often divergent goals: economic development and environmental protection. The conflict between these goals, which is largely politically promulgated by southern decision makers and interest groups, prohibits meaningful sustainable development in the Arctic region.¹ Renowned Arctic scholar Oran Young claims that resolving this conflict is the primary means to strengthen the Arctic Council.² By examining the concept of sustainable development as it has been operationally defined within the Arctic Council, it is clear to see that the Council has not embraced sustainable development as one of its pillars. This stems from a problem with both the Council's definition of sustainable development and the structure of the Arctic Council, in its ability to support both environmental protection and economic development. Restructuring the Arctic Council to provide greater prominence to economic and cultural issues would promote a better strategic vision of the Arctic region.

INTRODUCTION

The Arctic Council, the intergovernmental forum designed to handle the non-security issues of the North, exacerbates this tension between economic development and environmental protection through the imbalance in the focus of its Working Groups: there are five Working Groups on environmental protection and one Working Group on "sustainable development." Even within this one Working Group, there is confusion over what its mandate should entail.³ Although sustainable development has a number of definitions, the most common one comes from the 1987 Brundtland Commission.⁴ According to the commission, sustainable development is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."⁵ There are three major pillars to sustainable development: economic development, environmental protection, and social equity.⁶ The Arctic as a region has not settled on a concrete definition of sustainable development.⁷ The Arctic Council's Sustainable Development Working Group (SDWG) focuses on human health, economic activities, education and cultural heritage, natural resource management, climate change adaptation, and infrastructure development;⁸ meanwhile, the Nordic Council of Ministers laid out their understanding of sustainable development in the Arctic in their 2012–14 Arctic Co-operation Programme, under the umbrella of "People First," to include demographic, environmental, climatic, developmental,

¹ Douglas C. Nord, *The Arctic Council: Governance within the Far North* (London: Routledge: 2016), 89.

² Oran R. Young, "Strengthening the Arctic Council," *Arctic and International Relations Series 2* (2016), [https://jsis.washington.edu/arctic/file/Arctic & Int'l Relations Series/ CS_Arctic-CouncilAt20_Report_2016c.pdf](https://jsis.washington.edu/arctic/file/Arctic%20&%20Int'l%20Relations%20Series/CS_Arctic-CouncilAt20_Report_2016c.pdf).

³ Md Waliul Hasanat, "The Role of International Governance Systems in Protecting the Arctic Environment: Examining Climate Change Policy," *The Yearbook of Polar Law* 4 (2012): 561–81.

⁴ International Institute for Sustainable Development, "Sustainable Development," accessed June 6, 2016, <http://www.iisd.org/topic/sustainable-development>.

⁵ United Nations, *Report of the World Commission on Environment and Development: Our Common Future* (1987), n.p., <http://www.un-documents.net/our-common-future.pdf>.

⁶ John Drexhage and Deborah Murphy, International Institute for Sustainable Development, "Sustainable Development: From Brundtland to Rio 2012," background paper, September 19, 2010, [http://www.un.org/wcm/webdav/site/climatechange/shared/gsp/docs/ GSP1-6_Background on Sustainable Devt.pdf](http://www.un.org/wcm/webdav/site/climatechange/shared/gsp/docs/GSP1-6_Background%20on%20Sustainable%20Devt.pdf).

⁷ David VanderZwaag, Rob Huebert, and Stacey Ferrara, "The Arctic Environmental Protection Strategy, Arctic Council, and Multilateral Environmental Initiatives: Tinkering While the Arctic Marine Environment Totters," *Denver Journal of International Law and Policy* 30, no. 2 (2002): 152.

⁸ Arctic Council, "Sustainable Development Working Group (SDWG)," accessed May 27, 2016, <http://www.arctic-council.org/index.php/en/about-us/working-groups/sdwg>.

and educational foci.⁹ The inconsistencies between these definitions could potentially lead to tension in priorities for nations that are members of both organizations.

Given the Brundtland concept of sustainable development, arguably every Working Group in the Arctic Council is focused on environmental protection – but only one Working Group is focused on the economic development and social equity pillars. This is problematic, as the Arctic Council purports, in the Ottawa Declaration, to have two main objectives in its operation: environmental protection and sustainable development.¹⁰ As a result, the economic and social needs of the North are not being adequately addressed by the Arctic Council, as evidenced by a 2011 survey of Arctic Council participants who ranked the SDWG the least effective working group in the Arctic Council.¹¹ Given that the Arctic Council has evolved as an international body since its inception, the Council needs to re-examine its mission and structure to ensure that it is functionally able to meet its goals, without biasing one at the expense of the other. In addition, a potential restructuring or reframing will help allocate greater resources to meet the social and economic challenges that threaten the livelihoods of northern communities.

BACKGROUND

Due to the compromises that were required to bring the Arctic Council into existence, the current structure of the Arctic Council is a close reflection of the Arctic Environmental Protection Strategy (AEPS) that preceded it. While the Canadian vision for the Arctic Council had a much broader scope, the United States was unwilling to engage in such a council unless its mandate was drastically reduced.¹² Even within the AEPS, however, sustainable development did not enter the greater consciousness until after the 1992 Rio Declaration, the result of the United Nations Conference on Environment and Development, which provided 27 principles to guide the future of sustainable development.¹³ This prompted the formation of the Task Force for Sustainable Development and Utilization in the 1993 Nuuk ministerial meeting.¹⁴ Four of the six Working Groups were carried over from AEPS: Protection of the Arctic Marine Environment, Arctic Monitoring and Assessment Programme, Conservation of Arctic Flora and Fauna, and Emergency Prevention, Preparedness, and Response. Although the Sustainable Development Working Group was added to AEPS in Inuvik months before the Ottawa Declaration was signed in 1996, the format for the Arctic Council had largely been decided before this time – and there was little time for this working group to take any concrete action prior to the formation of the Arctic Council. In addition, there was concern that a SDWG would duplicate the efforts of an Arctic Council, and thus decrease its effectiveness.¹⁵

However, the setup for this structure was determined well before AEPS existed. In his 1987 Murmansk Speech, Mikhail Gorbachev signaled the start of what would become the Arctic Council by framing the Arctic as an area for political cooperation and environmental protection with his six measures: reducing military activity, establishing nuclear-free zone, cooperating on environmental protection, scientific research, and resource extraction, and opening the Northern Sea Route. This speech had no mention of sustainable development, even though the Brundtland Commission

⁹ Arctic Council, "Nordic Council of Ministers Arctic Co-operation Programme 2012–2014," SAO meeting, Luleå, Sweden, November 2, 2011, https://oaarchive.arctic-council.org/bitstream/handle/11374/1111/doc7-3_inf_arctic_co-operation_programme_2012-2014.pdf?sequence=1&isAllowed=y.

¹⁰ Evan Bloom, "Establishment of the Arctic Council," *The American Journal of International Law* 93, no. 3 (1999): 712–22.

¹¹ Paula Kankaanpää and Oran R. Young, "The Effectiveness of the Arctic Council," *Polar Research* 31 (2012): 1–14.

¹² John English, *Ice and Water: Politics, Peoples, and the Arctic Council* (Toronto: Allen Lane: 2013).

¹³ United Nations, "Rio Declaration on Environment and Development," accessed May 27, 2016, <http://www.unep.org/documents.multilingual/default.asp?documentid=78&articleid=1163>.

¹⁴ VanderZwaag, Huebert, and Ferrara, "Arctic Environmental Protection Strategy," 152.

¹⁵ *Ibid.*, 153.



was specifically mentioned.¹⁶ This omission continued in the post-Cold War era, where Canadian Speaker of the House of Commons John Fraser sought to “deal with environmental and security concerns in the region,” with no mention of economic or social matters.¹⁷ When the Finns began their initiative that led to the AEPS, they did “not want to touch those very delicate international problems that have other than an environmental characters [sic].”¹⁸ The US insistence that the Arctic Council should not be a place to discuss strategic military matters left environmental matters as the incipient Arctic Council’s dominant focal area. Sustainability thus got a higher profile when security was taken off the table.¹⁹

CONCLUDING THOUGHTS

The Ottawa Declaration, the founding document of the Arctic Council, states the Council’s commitment to sustainable development, even before addressing environmental protection.²⁰ While the previous three Declarations (Nuuk, Kiruna, and Iqaluit) all address sustainable development, the attention given to environmental protection far outweighs that given to sustainable development. Thus, this bias toward environmental protection has continued to be institutionalized through the highest levels of Arctic Council work.²¹ To break this trend, the Arctic Council could revisit its commitment to sustainable development as a concept, including how it chooses to define sustainable development.

Given that most definitions of sustainable development include some form of environmental protection, a re-examination of the definition of sustainable development, in light of the Arctic Council’s objectives, is merited. If the Council chooses to keep the current understanding of sustainable development and retain the overlap of environmental protection, then the Council can enhance its focus on the non-environmental aspects through several means. The SDWG could organize itself around certain sectors within the economic and social aspects of sustainable development, and focus on these themes for ministerial meetings, as Paula Kankaanpää and Oran Young and Douglas C. Nord suggest.²² Alternatively, the SDWG could split into separate working groups on these sectors – and thus achieve a numerical balance between the environmental working groups and the social/economic working groups. As structure dictates function within an organization, a change of this magnitude would indicate a clear reprioritization of sustainable development within the Council. The downside to this approach is that it would ultimately result in around 10 Working Groups, which may be prohibitive for the Permanent Participants, who are already struggling with capacity issues under the current structure.

If, however, the Council decides that having sustainable development and environmental protection as separate pillars is not optimal, the Council could restructure itself under an overarching theme of sustainable development with the three pillars from the Brundtland Commission. A similar revision has previously been proposed by Kankaanpää and Young.²³ While this approach would represent the better organizational philosophy, the execution would be

¹⁶ Mikhail Gorbachev, “Speech in Murmansk at the Ceremonial Meeting on the Occasion of the Presentation of the Order of Lenin and the Gold Star to the City of Murmansk,” October 1, 1987, https://www.barentsinfo.fi/docs/Gorbachev_speech.pdf.

¹⁷ “Boris Yeltsin to Both Houses of Parliament,” in Canada, Parliament, *House of Commons Debates*, June 19, 1992, 34th Parliament, 3rd Session (Ottawa: Canadian Government Publishing, 1992), 12484.

¹⁸ Esko Rajakoski, “Multilateral Cooperation to Protect the Arctic Environment: The Finnish Initiative,” in *The Arctic: Choices for Peace and Security*, ed. Thomas R. Berger et al. (Edmonton: The True North Strong and Free Inquiry Society, 1989), 53–59.

¹⁹ University of Washington Canadian Studies Center, “The Arctic Council at Twenty: Founding Visionaries,” video, November 20, 2015, <https://jsis.washington.edu/arctic/series/videoseriest.html>.

²⁰ Arctic Council, “All Arctic Council Declarations, 1996–2015,” accessed January 6, 2016, <https://oaarchive.arctic-council.org/handle/11374/94>.

²¹ Nord, *The Arctic Council*, 65–66.

²² Kankaanpää and Young, “The Effectiveness of the Arctic Council,” 6; Nord, *The Arctic Council*, 96–97.

²³ Kankaanpää and Young, “The Effectiveness of the Arctic Council,” 10.

quite challenging. To achieve equal weight among the pillars would mean either keeping the current five environmental Working Groups for continuity and developing an additional five Working Groups out of SDWG for each of the economic (the Arctic Economic Council could potentially be folded in as one Working Group) and social pillars, or restructuring the current Working Groups to keep the overall number small. Regardless of which direction the Council chooses to take, the Council will need to redress this imbalance if it wants to remain the preeminent organization in the Arctic. Inaction risks the potential that another body will develop to focus on the social or economic aspects, and thus provide competition for resources and priorities.

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Energy Security in the Arctic: How US and Canadian Collaboration Can Help the Arctic Council Implement Renewable Energy Solutions

KIRA SIEBERT

ABSTRACT

The Arctic Council performs a wide range of research on the most pressing Arctic issues. Yet there is often a gap between Arctic Council research and the ability of Member States to implement research findings in policies. Thus, the Arctic Council may be unfairly criticized as an ineffective body that produces studies that do not result in meaningful and productive policies and programs. The Arctic Council's effectiveness can be measured in other ways, however; as an organization where soft power agreements can be made, the Council promotes peaceful cooperation between nations and can therefore contribute to advancing initiatives that are less confrontational than the conventional state-to-state focus on hard power and security issues. Since its inception, the Arctic Council has focused on the environment, and has unified nations with its soft power studies on environmental issues that impact not only all Arctic nations but the entire world. This paper uses the platform of energy security to examine how the policies in the United States and Canada are shaped by the Arctic Council.

INTRODUCTION

Socioeconomic and political challenges in the Arctic region often act as a warning or precursor for the rest of the world. In August 2000, Sheila Watt-Cloutier, former chair of the Inuit Circumpolar Council, famously remarked, "The Arctic is serving as a canary in the coal mine for the global environment."¹ The Arctic is experiencing climate change at a faster rate and more intensely than any other region in the world, as the 2004 Arctic Climate Impact Assessment (ACIA) demonstrated. The ACIA found that the Arctic region is warming twice as fast as the rest of the globe.² Black carbon is a key contributing factor to the accelerated temperature increase. Commonly known as "soot," black carbon results from the incomplete combustion of organic matter in fossil fuels.³ When black carbon settles on the snow and ice, the dark color reduces the reflection of sunlight and thus causes increased warming and melting of the ice sheets.⁴ The consequences of the temperature and ice melt increase cause interconnected changes that negatively affect the Arctic's environmental and human security. These issues include but are not limited to food security, economic security, housing and relocation, and energy security. The rapid changes in this sensitive environment serve as a motivating force for policies that will mitigate climate change and increase human security in the Arctic and the rest of the world.

Among these interconnected issues in the Arctic, energy security is a paramount concern for Arctic communities. Diesel, which poses significant and multifaceted challenges to environmental and human security, is currently the pri-

¹ Sheila Watt-Cloutier qtd. in "Inuit of Canada amongst the Hardest Hit by Climate Change," *Inuit Circumpolar Council Canada*, August 30, 2000, <http://www.inuitcircumpolar.com/inuit-of-canada-amongst-the-hardest-hit-by-climate-change.html>.

² "Welcome to ACIA," ACIA, 2004, accessed September 11, 2016, <http://www.acia.uaf.edu/>.

³ "Black Carbon Diesel Initiative in the Russian Arctic," Environmental Protection Agency, accessed July 18, 2016, <https://www.epa.gov/international-cooperation/black-carbon-diesel-initiative-russian-arctic>.

⁴ Ibid.

mary energy source in Arctic communities. Diesel is difficult to transport, and shipping avenues are often vulnerable to inclement weather that prevents fuel from being delivered to communities in need. The transportation challenges add to the fluctuating price of diesel, which often results in massive energy costs that severely impact families' livelihoods. Along with contributing to black carbon production, fossil fuel dependence in non-Arctic southern states has multiple negative impacts in Arctic environments. Oil and gas accidents or spills threaten the fragile Arctic ecosystem.⁵ Sustainable energy solutions are necessary for Arctic peoples and their ecosystems to thrive. Thus far, the Arctic Council has acted as an influential foundation for Member States to examine, collaborate, and launch renewable energy solutions.

THE INTERWEAVING OF STATE POLICY AND THE ARCTIC COUNCIL

On April 24, 2015, the chairship of the Arctic Council was transferred from Canada to the United States. In his remarks at the presentation of the chairship, US Secretary of State John Kerry stated that "improving the lives of the Arctic indigenous peoples also means expanding access to clean, affordable, and renewable energy technologies that will provide local communities with alternatives to the costly and dirty diesel-based electricity that too many are forced to rely on today."⁶ Despite the domestic challenges of implementing renewables in the contiguous United States, Kerry's statement made renewable energy in the Arctic a primary focus of the US chairship.

Immediately following Kerry's remarks, the US Department of Energy, Office of Indian Energy released a 10-year energy plan where "US Arctic energy interests are secured by a holistic approach advancing resilient and sustainable energy systems."⁷ These remarks are a call to action – a call to implement policies that will ensure Arctic energy security, including renewable energy options in Arctic communities.

Nearly one year later, on March 10, 2016, the United States and Canada embodied the peaceful cooperation modeled by the Arctic Council when US President Barack Obama and Canadian Prime Minister Justin Trudeau released a landmark Joint Statement on Climate, Energy, and Arctic Leadership. The statement emphasized the importance of Indigenous collaboration: "We will develop and share a plan and timeline for deploying innovative renewable energy and efficiency alternatives to diesel and advance community climate change adaptation. We will do this through closer coordination among Indigenous, state, provincial, and territorial governments."⁸ While these are exciting and inspiring moves, the question of policy implementation remains, particularly given the complexities of domestic policies within each individual nation.

STATES IMPLEMENTING POLICY

Political and economic barriers often thwart full implementation efforts. Despite these systematic roadblocks, both the United States and Canada have found small yet significant ways to implement the call for renewable energy options to increase energy security in the Arctic. For instance, in October 2015, the US chairship launched the Arctic Remote Energy Network Academy (ARENA) to promote community-based renewable energy solutions in rural communities. Housed under the Arctic Council's Sustainable Development Working Group (SDWG), ARENA is a consortium of the

⁵ Chris Mooney, "How New Ways to Power Remote Alaska Villages Could Spread Clean Energy Worldwide," *Alaska Dispatch News*, August 16, 2015, <http://www.adn.com/rural-alaska/article/how-new-ways-power-remote-alaska-villages-could-spread-clean-energy-worldwide/2015/08/16/>.

⁶ John Kerry, "Remarks at the Presentation of the U.S. Chairmanship Program at the Arctic Council Ministerial," Legislative Assembly of Nunavut Iqaluit, Canada, April 24, 2015, <http://www.state.gov/secretary/remarks/2015/04/241102.htm>.

⁷ Denali Daniels and Associates, Inc., US Department of Energy, and Office of Indian Energy, *National Strategy for the Arctic Region (NSAR): Ten-Year Renewable Energy Plan*, April 2015, http://energy.gov/sites/prod/files/2015/04/f21/NSARDraftPlan_v6.pdf.

⁸ "U.S.–Canada Joint Statement on Climate, Energy, and Arctic Leadership," *The White House, Briefing Room*, March 10, 2016, <https://www.whitehouse.gov/the-press-office/2016/03/10/us-canada-joint-statement-climate-energy-and-arctic-leadership>.



University of Alaska Fairbank's Alaska Center for Energy and Power (ACEP) and the Gwich'in Council International in Canada, Iceland, and Finland. ARENA works to assess and educate communities on renewable energy options through a staged process. Communities that chose to participate are introduced to the program through a series of webinars followed by an in-person energy assessment. The communities that mutually agree to implement renewable energy options receive financial support for mini-grids and then share best practices protocol with other communities.

ACEP is also working with US Department of Energy and the Office of Indian Energy to identify 20 rural communities that can implement staged renewable energy projects. The first stage is immediate weatherization of homes and businesses to increase energy efficiency. Concurrent with weatherization efforts, ACEP teams will conduct renewable energy feasibility studies to determine which type of renewable (wind and/or solar) energy is best suited for the community. Once the renewable energy source is identified, communities will be identified as recipients of hybrid mini-grids energy distribution centers. The hybrid mini-grids will supply energy from renewable sources as well as diesel to use in emergency situations. Training of personnel to operate and maintain the mini-grids is also part of the renewable energy package. ACEP reports that, as of August 2015, 70 of 200 of Alaska's rural communities are connected to renewable hybrid grids.⁹ ACEP hopes that the success of the additional 20 communities will provide a proof of concept of staged renewable success that can be leveraged to acquire further funding and investment for additional communities.

In Canada, the World Wildlife Fund Canada is leading a sustainable energy coalition that includes ACEP, Qikiqtani Inuit Association, Tugliq Energy Co., Borden Ladner Gervais LLP, the Pembina Institute, and the Waterloo Institute for Sustainable Energy. The goal is to identify three mid-sized rural communities within the next four years and provide them with renewable energy options.¹⁰ The goal of this project is again to provide a proof of concept for mid-sized rural communities to secure further investment in additional communities.

At first glance, these programs seem like a small step toward securing energy security in the Arctic. While large-scale implementation is the goal, such small steps are important and necessary for policymakers to use to gather the support they need to continue and expand renewable energy projects.

CONCLUDING THOUGHTS

The Arctic Council provides an extraordinary space for peaceful cooperation between its Member States. It was in this context that the United States and Canada chose to come together and engage their shared vision of renewable energy in the Arctic. The United States and Canada overcame the local barriers by working through the Arctic Council. They now must continue to work locally to mitigate the economic and political barriers that may block renewable energy solutions in Arctic communities. The small steps in the above examples are an inspiring demonstration of how the Arctic Council plays an important and significant role in guiding its Member States toward incorporating renewable energy solutions that will increase energy security and overall environmental and human security.

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⁹ ACEP Alaska Center for Energy and Power, "Project Pages," accessed June 7, 2016, <http://acep.uaf.edu/projects.aspx>.

¹⁰ "New Alliance to Bring Renewable Energy to Remote Communities in Canada's Arctic, WWF-Canada Announces," *WWF Canada*, news release, March 31, 2016, <http://www.wwf.ca/newsroom/720583/New-alliance-to-bring-renewable-energy-to-remote-communities-in-Canadas-Arctic-WWF-Canada-announces>.

Making Indigenous Consultation Meaningful within the Arctic Council

JASON C. YOUNG

INTRODUCTION

The Arctic Council must offer greater resources for learning and collaboration between scientists and traditional knowledge holders to realize its longstanding commitment to meaningful cooperation with Indigenous peoples. The Council is a unique organization in that it was founded through cooperation between state governments and Indigenous peoples. The Saami Council, Inuit Circumpolar Council (ICC), and the Russian Association of Indigenous Peoples of the North (RAIPON) all participated in the creation of the Council's predecessor, the Arctic Environmental Protection Strategy (AEPS). These peoples were then involved in the transformation of AEPS into the Arctic Council, and Inuit in particular participated in the writing of the Canadian *Framework Report* upon which the Council would be based. As a result, Indigenous inclusion was built into the very structure of the organization, through guaranteed consultation rights.¹ The Council has also continuously reaffirmed the importance of traditional and local knowledge, from its founding Ottawa Declaration in 1996 through to the Iqaluit Declaration in 2015.²

Nevertheless, there remain fundamental questions as to whether the Arctic Council meaningfully consults Indigenous peoples on and includes traditional knowledge within all of its activities. This is evidenced, for example, by the Indigenous Peoples' Secretariat's 2014 statement that "the use of traditional and local knowledge in the workings of the Arctic Council requires substantial improvement."³ If the Arctic Council is to embody the current US chairship's theme of "One Arctic," then Indigenous peoples must be full partners. To accomplish this goal, this paper advises that Arctic Council create educational support programs that encourage the sustained interaction of traditional knowledge holders and non-Indigenous scientists.

BACKGROUND

Since its beginning, the Arctic Council has struggled with a gap between principles and practice when it comes to Indigenous participation. While founding documents called for equality between states and Indigenous peoples,⁴ subsequent revisions significantly reduced support for Indigenous peoples.⁵ They were included as Permanent Participants and guaranteed a right to consultation. However, consultation ranges from deep inclusion in all aspects of a project to much shallower disclosure of results at the end of a project. Lesser forms of inclusion result in not only unequal relationships between Member States and Permanent Participants, but also in products of lesser quality.⁶

Recent activities have sought to increase the meaningful participation of Indigenous peoples, pursuing two major types of reforms. The first type has focused on increasing funding for Permanent Participants so that they have the

¹ Arctic Council Panel, *To Establish an International Arctic Council: A Framework Report* (Ottawa: Canadian Arctic Resources Committee, 1991); Douglas C. Nord, *The Arctic Council: Governance within the Far North* (London: Routledge, 2016).

² Arctic Council Indigenous Peoples' Secretariat, "Traditional Knowledge and the Arctic Council: Moving Forward Together," accessed May 21, 2016, <http://arcticpeopleleestest.org/background-document/>.

³ Ibid.

⁴ Arctic Council Panel, *To Establish an International Arctic Council*.

⁵ Nord, *The Arctic Council*.

⁶ Michaela Louise Coote, "Environmental Decision-Making in the Arctic Council: What Is the Role of Indigenous Peoples?" (MA thesis, University of Iceland, Reykjavik, 2015).



capacity to attend and fully participate in meetings and work. An Arctic Council Permanent Participants' Core Fund was proposed in 2004, a scoping paper was published in 2013 on *Building Capacity among the Permanent Participants*, and the Indigenous Peoples' Secretariat is currently exploring the establishment of the Better Arctic Funding Mechanism.⁷ While the Arctic Council continues to explore these options, progress has been slow and incomplete to date.

The second type of reform focuses on transforming the structure of the Arctic Council so that it more comprehensively integrates traditional knowledge into processes and products. The 2013 Kiruna Declaration committed the Arctic Council to the development of recommendations for better integration of traditional and local knowledge into its work.⁸ This resulted in workshops in Reykjavik and Ottawa, and then in a Sustainable Development Working Group (SDWG) project.⁹ The SDWG produced a set of recommendations based on this work,¹⁰ and the Permanent Participants developed and adopted an even more comprehensive set of 13 principles.¹¹ Once again, though, slow progress and uneven compromise remain hallmarks of these developments. While the SDWG continues to highlight the importance of integrating traditional knowledge, the Arctic Council has not yet fully adopted its recommendations.

Progress is slow on these reforms because of their breadth and because traditional knowledge remains a highly contentious issue within the Arctic Council.¹² This paper argues that the creation of educational programs that bridge knowledge systems, as called for by the 13th principle of the *Ottawa Traditional Knowledge Principles*,¹³ would be an effective and politically feasible intermediate step toward some of these broader reforms.

POLICY RECOMMENDATIONS

The SDWG should implement a new project that increases the capacity of traditional knowledge holders and non-Indigenous scientists to work with one another, across their respective knowledge systems. This project will establish a range of educational support programs, within the Arctic Council, that fall along two critical axes – Indigenous leadership in research and training in traditional knowledge systems. Not only will these programs directly build the capacity of the Permanent Participants but they will increase the everyday interactions between Indigenous peoples and non-Indigenous scientists. This interaction will increase trust and respect, institutionalize the co-management of research within communities, and, ultimately, ensure the tighter integration of traditional knowledge into all stages of Arctic Council projects.¹⁴

Promoting Indigenous Leadership in Research

Arctic communities need sufficient capacity to both contribute traditional knowledge to Arctic Council work and also to participate in discussions of non-Indigenous science, policy, and law. Unfortunately, the Permanent Participants currently have a limited number of traditional knowledge holders that they can easily draw upon.¹⁵ Furthermore,

⁷ Coote, "Environmental Decision-Making"; Jessica Veldstra, Aleut International Association, "IPS Is Requesting Proposals for 'Better Arctic Funding Mechanism' Business Plan & Marketing Strategy," September 18, 2015, <http://aleut-international.org/ips-is-requesting-proposals-for-better-arctic-funding-mechanism-business-plan-marketing-strategy/>.

⁸ Arctic Council Indigenous Peoples' Secretariat, "Traditional Knowledge."

⁹ Arctic Council Sustainable Development Working Group (SDWG), "Recent Projects," accessed May 21, 2016, <http://www.sdwg.org/project/2011-2013-sdwg-deliverables/>.

¹⁰ Arctic Council, SDWG, *Recommendations for the Integration of Traditional and Local Knowledge into the Work of the Arctic Council* (Iqaluit: Arctic Council, 2015).

¹¹ Arctic Council Indigenous Peoples' Secretariat, *Ottawa Traditional Knowledge Principles* (Ottawa: IPS, 2015), http://www.saamicouncil.net/fileadmin/user_upload/Documents/Eara_dokumeanttat/Ottawa_TK_Principles.pdf.

¹² Coote, "Environmental Decision-Making"; Daryn Forgeron, "Indigenous Rights: The Hidden Cost of Arctic Development," *Harvard International Review* 36, no. 3 (2015), <http://hir.harvard.edu/indigenous-rights-the-hidden-cost-of-arctic-development/>.

¹³ Arctic Council Indigenous Peoples' Secretariat, *Ottawa Traditional Knowledge Principles*.

¹⁴ Brad Coombes, Jay T. Johnson, and Richard Howitt, "Indigenous Geographies III: Methodological Innovation and the Unsettling of Participatory Research," *Progress in Human Geography* (2014): 845–54.

¹⁵ Coote, "Environmental Decision-Making," 60.

there is a trend toward the erosion of traditional knowledge amongst youth in many Arctic communities,¹⁶ and these same youth often have insufficient opportunities to pursue postsecondary education.¹⁷ This project should therefore establish guidelines to ensure that all future Arctic Council projects include a community mentoring and capacity-building component, with a focus on Indigenous youth. Many national funding programs, such as the US National Science Foundation, require that researchers include student or postdoctoral mentoring plans in their major grant application.¹⁸ In this way the grant ensures that future generations of researchers are trained. Following this model, all Arctic Council projects should include a community mentoring plan, developed collaboratively with the affected community, with the goal of improving the long-term ability of Indigenous peoples to participate in research. Mentoring could range from the facilitation of workshops that bring Indigenous youth and Elders onto the land together, to training in the non-Indigenous scientific aspects of a project.

Arctic communities must also have control over the types of research that occur on their lands. The establishment of local research protocols provides communities with that control.¹⁹ This project should assess the existence of protocols across different Arctic communities, and establish workshops that encourage knowledge sharing between communities that have research protocols and those that lack them. Discussions should extend to research ethics and methodologies, as well as the role of Indigenous participants in publications and grants.²⁰ Furthermore, this project should establish a website that contains information about community protocols for researchers. Such a resource will ensure that researchers have a clear understanding of how to ethically engage all Arctic communities from the very beginning of research projects.

Encouraging Training in Traditional Knowledge Systems

It is not enough to establish programs that increase the capacity of Indigenous peoples to interact with non-Indigenous scientists – these scientists must also receive better educational support for respectfully and meaningfully interacting with traditional knowledge systems. Therefore, this project should assess the availability of coursework and training programs on traditional knowledge systems for scientists. It should also examine the availability of training in Indigenous languages. Knowledge of Indigenous languages is critical both to improve relationships with community members and to minimize misunderstandings during the research process and when research results are returned to communities.²¹

This project will make recommendations to Member States on how to increase the integration of traditional knowledge into postsecondary and graduate education. It will also make recommendations to the Arctic Council on how to provide training programs for Council scientists. Any recommended training should include components within Arctic communities. In this way they will not encourage the appropriation of traditional knowledge by scientists, but will instead encourage increased knowledge of traditional systems as part of an ongoing and ethical relationship with the communities that have ownership over that knowledge.²²

¹⁶ James Ford, Tristan Pearce, Barry Smit, Johanna Wandel, Mishak Allurut, Kik Shappa, Harry Ittusujurat, and Kevin Qrunnut, "Reducing Vulnerability to Climate Change in the Arctic: The Case of Nunavut, Canada," *Arctic* 60 (2007): 150–66.

¹⁷ National Committee on Inuit Education, *First Canadians, Canadians First* (Ottawa: Inuit Tapiriit Kanatami, 2011).

¹⁸ National Science Foundation, "Chapter II – Proposal Preparation Instructions," in *Grant Proposal Guide*, April 2009, http://www.nsf.gov/pubs/policydocs/pappguide/nsf09_29/.

¹⁹ Kyle P. Whyte, Joseph P. Brewer II, and Jay T. Johnson, "Weaving Indigenous Science, Protocols and Sustainability Science," *Sustainability Science* 11 (2016): 25–32.

²⁰ Renee Pualani Louis, "Can You Hear Us Now? Voices from the Margin: Using Indigenous Methodologies in Geographic Research," *Geographical Research* 45 (2007): 130–39.

²¹ Emile Cameron, Rebecca Mearns, and Janet Tamalik McGrath, "Translating Climate Change: Adaptation, Resilience, and Climate Politics in Nunavut, Canada," *Annals of the Association of American Geographers* 105 (2015): 274–83.

²² George W. Wenzel, "Traditional Ecological Knowledge and Inuit: Reflections on TEK Research and Ethics," *Arctic* 52 (1999): 113–24.



CONCLUDING THOUGHTS

Until the Arctic Council establishes a full partnership between Member States and Permanent Participants, it will never meet its full potential as envisioned in its founding documents. This equal partnership must be based upon meaningful consultation of and participation by Indigenous peoples in Arctic Council activities, as well as the inclusion of traditional and local knowledge in Arctic Council products. To date, Indigenous peoples lack the capacity to fully participate in these ways, and non-Indigenous scientists lack the capacity to ethically and meaningfully encourage this participation. The recommendations of this paper solve these capacity issues by implementing educational support programs. Perhaps even more importantly, this project will increase the ongoing and everyday interactions between Indigenous and non-Indigenous researchers and between different knowledge systems. It is these relationships that will ensure that all stakeholders get to meaningfully participate in the creation of a future One Arctic.

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