Kamrul Hossain & J. Miguel Roncero (Editors)

Arctic Law

in 1000 Words

Juridica Lapponica 50

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Northern Institute for Environmental and Minority Law
Arctic Centre, University of Lapland
Rovaniemi 2023

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Juridica Lapponica 50

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TABLE OF CONTENTS

PREFACE

The Arctic is complex and multifaceted. No matter the approach one takes to understanding or working with the northernmost region of our planet, the interdependencies between the Arctic and the rest of the world can make such a task daunting. Furthermore, one should bear in mind that there are many *Arctics*, different geographical and human spaces where jurisdictions, cultures, societies or landscapes overlap and interact with one another.

Such complexity also reflects on Arctic Law as an academic discipline. Yet explaining Arctic subjects, particularly Arctic Law and related matters, does not need to be complex. With this volume, we made the subject of Arctic Law more approachable and easier to comprehend. We offer a tool for students and interested people to get a first glimpse at different Arctic subjects, offering a simple yet sufficient coverage of the most relevant legal, political, socioeconomic and environmental topics.

The reason for this volume is simple. Whereas because of climate change and its impacts, geopolitics, environmental protection, Indigenous rights, or sustainable development, the Arctic is gaining in relevance. A historically peripherical region, the Arctic is gaining traction in international fora, breaking through old stereotypes and becoming understood as the dynamic region it is. And with this increasing attention, there is a need to offer a solid understanding of Arctic-related subjects and concepts.

The field of Arctic Law studies lacks a simple yet comprehensive introductory work that enables current or prospective students, especially in Arctic studies, as well as policymakers and practitioners, to grasp a sound understanding of Arctic matters quickly yet thoroughly.

This volume provides a primary understanding of the most relevant topics in Arctic Law studies. It counts with contributions of experts in different areas, combining the viewpoints and experiences of academics and practitioners alike. Its reading should allow anyone interested in Arctic Law matters to get the gist of the topic and a sound understanding of the challenges and what could be done next.

Each topic is presented in its basic elements in a text no longer than 1,000 words. Therefore, the reading of each topic should not take more than 10 or 15 minutes. The goal is to offer a good yet basic understanding, with recommendations for further reading for those eager to learn more. This approach puts aside traditional academic style. The texts are simple, without long arguments and citations. Yet each text has

been provided by an expert in the field, peer-reviewed, and is therefore sound in its content. The texts are consequently brief and accessible. They present the basic concepts of a given topic without academic paraphernalia yet with full accuracy. We hope this concise format covers the initial understanding needs while awakening the readers' interest in learning more about each topic.

The volume is divided into ten main chapters, each with different topics. It opens by covering Arctic Law as a subject on its own, addressing questions related to the definition, actors, framework, roles and history. The next chapter covers the principles of International Law, particularly Environmental Law, and their applicability to the Arctic. This chapter also discusses the different legal frameworks in the Arctic, from the national to the international. Complementing and building on the previous chapters, chapter three focuses on the international regulatory frameworks most relevant to the Arctic. Under chapter four, we delve into Arctic-specific regulatory and self-regulatory examples, an area where the Arctic shows perhaps a different type of exceptionalism. Chapter Five moves into territorial disputes, now basically under the UNCLOS framework. Chapter six covers the different institutions dealing with Arctic affairs, with the Arctic Council at the core of them all, yet with a plethora of other dedicated as well as contingent bodies dealing with Arctic affairs. Next comes chapter seven, where we address Indigenous Peoples and their rights, position in Arctic governance structures, and role in different areas, from governance to normative systems. The next chapter, eight, covers the interests in the Arctic of non-Arctic actors, highlighting the global relevance of the Arctic and the globalization of Arctic affairs. Chapter Nine focuses on current sectoral challenges, from research to infrastructure to innovation, and how different economic activities occur in the Arctic. Our closing chapter looks at the future of Arctic Law, both as a discipline on its own as well as in terms of possible developments in the larger normative framework.

This volume covers questions related to sovereignty, governance, cooperation, rights, and/or development. It is not meant to be exhaustive but to outline the main topics, issues, and challenges and offer the readers an overall basis to connect the dots and draw their own conclusions.

When writing this volume, we had in mind undergraduate and graduate students, policymakers and practitioners, and anyone generally interested in Arctic Law. We hope that after reading its content, one can gain primary knowledge of what is called "Arctic Law". The book is produced as an initiative of the UArctic Chair in Arctic Legal Research and Education, where collaborative partners are the UArctic Thematic Network on Arctic Law and the Northern Institute for Environmental and Minority Law of the Arctic Centre of the University of Lapland. We are grateful to all

contributors for their insightful and precise deliberations. Our editorial team has provided helpful suggestions throughout the process – we are thankful to them. In addition, we must acknowledge the efforts provided by Cedric Pfeiler, who designed the cover page and the layout of the book. Without Cedric's contribution, this book would not have been completed – thank you, Cedric!

J. Miguel Roncero & Kamrul Hossain
September 15, 2023

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CHAPTER 1: ARCTIC LAW: AN INTRODUCTION

1.1
The Arctic – A Geographic Space with Human Settlement

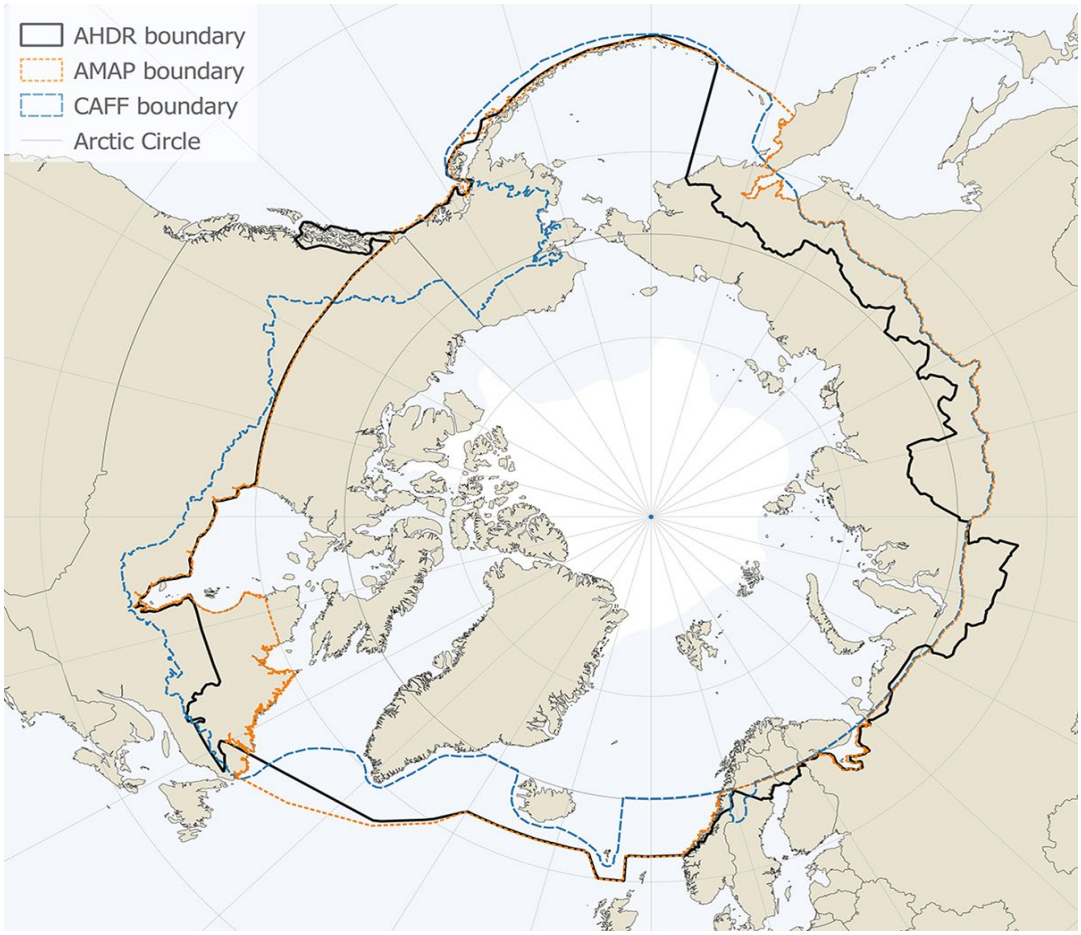
Kamrul Hossain & J. Miguel Roncero

The Arctic is the geographic space surrounding the North Pole. The Arctic is also a human space, an area that has been populated for thousands of years. Today, the region comprises dynamic and innovative urban centers, as well as hamlets where traditional lifestyles are preserved and observed. The vast area known as the Arctic includes the Arctic Ocean and large land areas of eight countries: Canada, Denmark (via Greenland, and the Faroes under certain definitions), Finland, Iceland, Sweden, Norway, Russia and the United States. Covering six percent of the Earth's surface, the Arctic encompasses areas within, and beyond, nations' jurisdictional boundaries. The parts of the Arctic Ocean considered the high seas, spanning close to three million square kilometers, lie outside of the national boundaries of its coastal states. For comparison, this is an area is larger than the Mediterranean Sea.

There is no single legal definition of the Arctic, yet a range of definitions have been put forward that help conceptualize the region. The most common ones refer to the Arctic Circle, the tree line, and temperatures. These are all geophysical parameters setting a geographic boundary.

The **Arctic Circle definition** is based on the circle of latitude at 66.33 degrees north. The area above the Arctic Circle is that in which there is at least one day during summer when the Sun does not set, and at least one day during winter when the Sun does not rise.

The **treeline definition** refers to the point, north of which trees will not grow. This area, characterized by stunted trees and tundra and including the Arctic Ocean, would then be defined as the Arctic.



Arctic Centre, University of Lapland

The **temperature definition** is based on the average monthly temperature during the summer months. This definition draws a boundary at which the Arctic is the northern area where the average summer temperature does not exceed +10 degrees Celsius (+50 degrees Fahrenheit).

The Arctic can also be defined as the region which its original population, the **Arctic Indigenous peoples**, have inhabited for thousands of years. The peoples have unique cultural practices sustaining livelihoods intimately linked to the region's distinctive characteristics. For example, the prevalence of ice and snow, as well as ice-dependent activities such as using offshore ice sheets as hunting grounds, helps to understand the uniqueness of the **ethnoculturally defined Arctic**. The ethnographic definition of the Arctic depicts it as a region where over forty distinct groups of Indigenous communities engage in traditional activities such as hunting, fishing, trapping, gathering, and reindeer and caribou herding. For many communities, reindeer came to symbolize creativity, resourcefulness and knowledge, while also representing safe and reliable travel. The idea that reindeer will bring people

home safely over harsh winter terrain is emblematic of the Arctic as a unique space on the planet.

The **politically based definitions** of the Arctic can be found in the legal and policy documents created within the framework or under the auspices of the Arctic Council, a high-level intergovernmental forum of the eight Arctic states. Examples include the Conservation of Arctic Fauna and Flora (CAFF), a working group of the Arctic Council; and the Arctic Search and Rescue Agreement, a legally binding international law instrument adopted by the eight Arctic states. The Council and the Agreement each put forward their unique definitions of the Arctic for the purpose of carrying out their specific purposes.

Under any of these definitions, the number of countries that share the Arctic remains unchanged. The Arctic is a dynamic human space, characterized physically by a sparse population, vast distances, yet it hosts a number of urban and industrial centers. Regardless of the definition used of those described above, the Arctic is home to at least some four million people, of whom approximately ten percent are Indigenous population. Dense urban population centers in the Arctic are few and often far apart, with the concentration being higher in the European Arctic and the Kola peninsula in Russia. The Indigenous population is also sparse, with long distances between settlements. Infrastructure, including transport and services, is in general limited. Whereas the Arctic may have been a peripheral region in the past, the area is becoming more and more relevant to core power centers. Major urban pockets in the Arctic are as integrated into the global economy as any major urban center elsewhere worldwide, and a number of major industrial players in global sectors of the economy, such as energy or food production, are either based in the Arctic or heavily dependent on Arctic raw materials and products. Today, the Arctic is gradually becoming home to large industries in traditional sectors, such as hydrocarbons, shipping or fisheries, as well as innovative ones, examples being renewable energy, applied biosciences, sustainable food systems, space or different niche areas.

The Arctic is well known for astonishing natural phenomena such as the northern lights, the polar night, or the midnight sun. Where it once featured pristine natural ecosystems with magnificent and unique flora and fauna

adaptive to cold climatic conditions, long winters and snow- or ice-covered ground, the Arctic today exhibits drastic impacts of climate change. The UN Intergovernmental Panel on Climate Change (IPCC) consistently reports that temperatures are increasing in the Arctic faster – at least three-four times faster – than in other regions of the world. This being the case, climate change may need to be considered in the future when defining the region in terms of temperature or the tree line.

For more on this, read…

Ostenso N A, 'Arctic' (*Encyclopedia Britannica*, 8 August 2023)
www.britannica.com/place/Arctic

1.2
Setting the Stage for Arctic Law

Kamrul Hossain

The Arctic is a unique place on Earth. Its natural environment has traditionally been pristine and supportive of local as well as global ecosystems. The planet's naturally sustained and balanced biosphere relies heavily on its ice-covered polar regions, including the Arctic. Hence, preserving the Arctic's natural conditions is crucial for sustaining the planet's environment and climatic system. The major challenges facing the Arctic are the impacts of climate change, which affect the region disproportionately given that records show the increase in temperature there is three-four times faster than the global average. Such an increase leads to melting of offshore and terrestrial ice sheets and glaciers. It is forecast that in the next few decades Greenland's glaciers will melt to a significant extent, and if the current pace of melting continues, it is likely that we will see not only an ice-free Arctic Ocean but an ice-free Arctic as a whole. This would entail environmental, socio-economic, and geopolitical consequences for the region and globally. For all of its negative ecological impacts, the melting Arctic is opening up new opportunities for intense commercial activities that would make the region one of the world's final economic frontiers.

The Arctic and its pristine environmental conditions provide a thriving ecosystem for thousands of unique and highly cold-adaptive species. The region is also home to over forty distinct groups of Indigenous peoples, the first of whom settled in the region forty thousand years ago. Generation after generation, these groups have maintained nature-dependent livelihoods. Their relationship with the land and biodiversity ties them uniquely to the area; indeed, these bonds formed the basis for the traditional norms of interaction in the Arctic's social and ecological governance. However, the sensitive and fragile Arctic ecosystem, made vulnerable by climate change, has deteriorated. This trend has been marked by catastrophic, extreme natural events both within the region and elsewhere, leading to environmental degradation, loss of biodiversity, imbalances in natural resource distribution, unsustainable demographic and political structures, peoples and communities losing their socio-cultural identity, and large-scale internal and external displacement.

All the while, the melting of sea ice in the Arctic has created the prospect of access to its marine areas and thereby of opportunities to tap their rich resources, among other possibilities. Offshore hydrocarbons, significant deposits of rare-earth elements in Greenland and the other Arctic areas, and sizeable mineral deposits elsewhere in the Arctic make it an immensely resource-rich region. Evidence of the abundant resources available can be seen in a report of the United States Geological Survey in 2008 stating that the Arctic contains one-fourth of the world's yet-to-be-tapped hydrocarbon resources. The Arctic Ocean also includes a wide variety of living resources, such as fisheries, although the resource stock, particularly in the central Arctic Ocean, is currently unknown.

The extraction of these resources and their transportation through the emerging Arctic sea routes made possible by the ice-free Arctic Ocean has led to the intensification of human activities. The Northern Sea Route, for example, has become more operational in recent years because of the much shorter distance and higher cost-effectiveness it offers compared to traditional routes, such as the Suez Canal. A gradual increase in cargo volume through the Route has intensified human activity, examples being infrastructural developments such as the building of new ports, support services for vessel operations, emergency centers for rescue and safety operations, and on-the-ground road and communication links. Additionally, the open Arctic increases the potential for nature tourism. Among other attractions, cruise shipping in the region has become more popular in recent years.

Furthermore, the ongoing process of laying undersea communication cables – fiber-optic lines – through the Arctic waters demonstrates another step forward in connecting the Arctic to the rest of the world. Much as in the case of sea routes, undersea cables laid through the Arctic entail shorter geographical distances, offering a grand promise for faster intercontinental communication networks. These in turn enhance business potential in the Arctic and engage actors from within and beyond the region. However, while these activities make the Arctic a new economic goldmine, they also accelerate climate change: More human activity means more greenhouse gas emissions into the atmosphere.

The Arctic's resource potential and the increase in human activities quickening issues of resource geopolitics have redefined local and global power politics. Locally, the interests of new actors and various interest groups engaged in land use, such as the extractive industries, often clash with those of national and regional bodies and of local and Indigenous communities. Consequently, their stake in decision-making as regards political participation, environmental and economic governance and maintaining socio-cultural autonomy has become increasingly critical in recent years.

Globally, the attractiveness of the economic potential of the Arctic today serves as a dominant feature in global power politics among emerging economies. The rise of states such as China in the global economy can be partially attributed to Russia's energy, much of which comes from the latter's Arctic region; this link brings China closer to Russia, increasing tension in great power politics. Additionally, China's linking of the Polar Silk Road to its "Belt and Road" initiative suggests a further extension of its economic dominance in the region. Russia's military invasion of Ukraine in early 2022 has further fueled the geopolitical rivalry between the Western Arctic countries and Russia. While the Western Arctic countries endeavor to restructure Arctic cooperation within a new framework – the so-called Arctic-7 (which excludes Russia but includes all seven other Arctic nations) – Russia is pulling China and India ever closer.

In sum, the Arctic remains at a crossroads between environmental governance and the expansion of economic development. The latter creates tension in great power politics, with implications for regional and global security. Therefore, the development of new Arctic law has embraced regulatory developments focusing on broader environmental issues, including climate change, biodiversity, land use, resource management, marine and ocean governance – in particular shipping, fishing and marine biodiversity – geopolitics and security, and human rights and human security.

For more on this, read…

Hønneland G, *International Politics in the Arctic: Contested Borders, Natural Resources, and Russian Foreign Policy* (IB Tauris 2017)

1.3

The Arctic Legal System

Kamrul Hossain

The Arctic does not have a legal system of its own, as the region does not enjoy any unique recognized legal status. Instead, it is a geographic space within and beyond the jurisdiction of several circumpolar countries, generally referred to as the Arctic states. Of the Arctic states, five are considered Arctic coastal (or littoral) states because they share maritime areas in the Arctic Ocean. These are Canada, Denmark (through Greenland), Norway, Russia, and the United States. The other three, Iceland, Finland, and Sweden, have Arctic territories but do not have coastlines on the Arctic Ocean.

The Arctic Ocean encompasses a maritime area of fourteen million square kilometers, an expanse that includes areas within as well as beyond national jurisdictions. Because of this fragmented jurisdictional configuration, the Arctic legal order is a complex set of national, international and transnational regulations. While national regulations apply to the Arctic within the sovereign jurisdiction of each Arctic state, international law is binding on all the nations, including the Arctic states, that have agreed to abide by that law. In other words, the countries are bound by specific international rules they ratify following the procedures referred to in international law, such as those in the 1969 Vienna Convention on the Law of Treaties (VCLT). For example, the United Nations Convention on the Law of the Sea (UNCLOS) is an international regulation containing comprehensive mechanisms for governing the world's oceans and seas. It is often referred to as the "Constitution of the Ocean"; it is binding on all the Arctic nations except the United States, which has not ratified the instrument.

Because the US has not ratified UNCLOS, the rules of the Convention do not strictly control its behavior in the Arctic marine area. Nevertheless, the United States is bound to follow customary international law, a set of norms or rules observed by states consistently and continuously based on the belief that such behavior is law – the so-called customary international law. Most articles in UNCLOS are a codification of the rules of customary international law, whereby those provisions are binding on the United States as part of the law of the sea. The law of the sea, including UNCLOS, provides an overarching

legal framework for governing the Arctic Ocean. While the framework applies to all actors from within and beyond the Arctic, UNCLOS, pursuant to its Article 234, grants Arctic coastal states some prerogatives, such as the right to adopt special legal measures on frozen areas.

Similarly, the United Nations Framework Convention on Climate Change (UNFCCC) – a global regulatory scheme for mitigating and adapting to the impacts of climate change – applies to all parties to the Convention, including all the Arctic states. The Convention and its follow-up processes impose a global legal responsibility, shared by the Arctic states, to reduce the emission of greenhouse gases.

Alongside the set of international regulatory mechanisms that apply to the Arctic are regionally focused regulations that are also binding on the region's actors. The latest instrument of this sort of regulation is the CAO Fisheries Agreement (Agreement to Prevent Unregulated High Seas Fisheries in the central Arctic Ocean), the parties to which include all five Arctic coastal states (Canada, Denmark (for the Faroe Islands and Greenland), Norway, Russia, and the United States) as well as other actors having a stake in Arctic fisheries, such as China, the European Union, Iceland, Japan and the Republic of Korea.

The CAO Agreement did not mark the first time Arctic states came together to create regional regulations. The 1973 Polar Bear Agreement (Agreement on the Conservation of Polar Bears) was the first legally binding treaty that brought all five Arctic coastal states together under one umbrella. Cooperation continued under the auspices of the Arctic Council, an intergovernmental forum of the eight Arctic countries. Within this framework, the Arctic states have adopted a set of regulatory instruments that legally bind them. Examples of such regulatory arrangements are the 2011 Arctic Search and Rescue Agreement (Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic), the 2013 Arctic Oil Spill Agreement (the Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic) and the 2017 Arctic Scientific Cooperation Agreement (the Agreement on Enhancing International Arctic Scientific Cooperation).

An additional aspect of the Arctic legal system is intensive involvement on the part of non-state actors, such as the region's Indigenous peoples, in policy

shaping, which eventually influences the law-making process in the regional setting. For example, certain Indigenous groups have been designated "permanent participants" in the Arctic Council. This gives them a role in the decision-making process, providing inclusivity in the making of soft law. The Arctic legal system thus recognizes the involvement of both state and non-state actors at various levels.

Finally, Arctic states' national regulations cover the Arctic territory within their domestic boundaries. These regulations are often influenced by and sometimes adjusted to comply with the rules of several international legal instruments with transnational effects. For example, the laws of many countries contain regulations on environmental impact assessments. While implemented nationally, these also apply to actions which states propose within their Arctic jurisdictions, highlighting regional specificity. In sum, the Arctic legal system includes laws that apply to the individual countries either as part of national law or international law, as well as those adopted and enforced by all of the states as part of international law, these pertaining primarily, but not exclusively, to the environmental governance of the Arctic region as a whole.

For more on this, read…

Pushkareva E, 'Concepts of the Legal Status of the Arctic. Max Planck Yearbook of United Nations Law Online' (2016) 19(1) Max Planck Yearbook of United Nations Law Online https://doi.org/10.1163/18757413-00190013

Koivurova T, 'Limits and Possibilities of the Arctic Council in a Rapidly Changing Scene of Arctic Governance' (2009) 46 Polar Record 146

1.4
Key Actors in Arctic Governance

Kamrul Hossain

The Arctic is a region encompassing territories within and beyond states' national jurisdictions. Its governance operates through a combination of hard-law and soft-law frameworks. Sources of hard law are available in international, regional, and national legal frameworks, in which states play the primary role. Soft law originates in actions taken by a set of state- and non-state actors within the region's existing institutional infrastructure. Following is an overview of the relevant actors in Arctic law:

Arctic states: States are the primary actors in shaping what is called Arctic law. Eight states, all of which have territories in the Arctic, comprise the "Arctic states": Canada, Denmark (via Greenland), Finland, Iceland, Norway, Russia, Sweden, and the United States. Of the eight, five – Canada, Denmark (via Greenland), Norway, Russia and the United States – have coastlines on the Arctic Ocean. The five enjoy legal rights and incur responsibilities within designated maritime zones in the Arctic Ocean as set out in the United Nations Convention on the Law of the Sea (UNCLOS). Like any other states, the eight Arctic states participate in international law-making processes and are legally bound by international treaties or agreements to which they are parties. In addition, the Arctic states, under the auspices of the Arctic Council (AC), negotiate legally binding Arctic-specific international treaties. There are currently three such treaties that merit mention: the 2011 Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic, the 2013 Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic, and the 2017 Agreement on Enhancing International Arctic Scientific Cooperation.

As the eight Arctic states enjoy sovereignty over the Arctic territories within their national jurisdiction, each regulates its part of the Arctic through domestic laws. These laws may cover interests such as environmental protection, resource exploitation, Indigenous rights, shipping, and navigation. In addition, Arctic states enact national legislation to implement international agreements and ensure sustainable development in the Arctic. Overall, states are essential actors in Arctic law, shaping the legal frameworks, implementing

national legislation, participating in international negotiations, asserting their regional rights and honoring their responsibilities.

Indigenous peoples: Indigenous peoples play a crucial role in Arctic governance through their representative organizations. Within the AC framework, six Indigenous organizations enjoy the unique status of "Permanent Participant." This ensures that their voices and perspectives are included in the region's decision-making processes. The Permanent Participants sit with state actors and offer firsthand knowledge on environmental and ecological processes that they have experienced and sustainably practiced for thousands of years. The inclusion of Indigenous peoples as Permanent Participants is rooted in the principles of self-determination, Indigenous rights, and meaningful consultation. The AC acknowledges that the Indigenous peoples of the region have unique cultural, social, economic, and environmental perspectives that must be considered in discussions and decisions that directly affect them and the Arctic as a whole. Recognizing Indigenous peoples as Permanent Participants is an important step towards fostering genuine partnerships that can contribute to more inclusive and equitable decision-making processes. Other regional institutional setups, such as the Arctic Economic Council, Barents Euro-Arctic Council (BEAC), also embrace inclusion of Indigenous peoples in Arctic governance.

Institutions as actors: The Arctic as a region is highly institutionalized. While global international organizations such as the International Maritime Organization (IMO) play an essential role in Arctic-related developments, an extensive set of institutions offers substantial contributions to Arctic governance through research and assessment, policy-making, environmental protection, promotion of Indigenous rights, and economic development.

The **Arctic Council (AC)**, an intergovernmental forum, is an inclusive institution that brings together Arctic states and Indigenous peoples as principal actors, and non-Arctic states, inter-governmental, and non-governmental organizations as observers. The Council addresses issues of sustainable development and environmental protection in the Arctic. Other significant actors include the following:

The **Arctic Economic Council (AEC)**, which consists of representatives from various industries, including energy, tourism, shipping, and fisheries, is a business forum that promotes economic cooperation and development in the Arctic. The AEC aims to foster responsible economic activities while respecting the region's environment and communities.

The *International* **Arctic Science Committee (IASC)** is a non-governmental organization that promotes and facilitates Arctic research and international cooperation. It also provides a platform enabling scientists from various countries to collaborate and exchange knowledge on Arctic science and its impacts.

The **University of the Arctic (UArctic)** is a cooperative network of universities, colleges, and research institutions spanning the Arctic. It facilitates collaboration in education, research, and knowledge exchange among its member institutions. The UArctic forms an epistemic community across the region that helps decision-makers to define Arctic-specific problems, identify various policy solutions, and assess policy outcomes.

The **Barents Euro-Arctic Council (BEAC)** is an inter-governmental cooperation forum comprising the northernmost parts of Norway, Sweden, Finland, and Russia, including the Sápmi region, the territories inhabited by the Indigenous Sámi people. The BEAC provides a platform for dialogue and cooperation among the constituent countries and regions to enhance regional stability, sustainable development, cross-border collaboration, economic growth, and cultural exchange. It addresses topics of common interest, such as environmental protection, energy cooperation, infrastructure development, tourism, education, and Indigenous rights.

The **Northern Forum**, which has representatives from Arctic and sub-Arctic subnational or regional governments, Indigenous peoples' organizations, and other regional stakeholders, focuses on cooperation and sustainable development among northern regions, their inhabitants and Indigenous communities. The Forum addresses issues of environmental protection, climate change, education and healthcare, Indigenous rights, and economic disparities.

Although the institutions described above do not have legal personality, they offer substantial input in developing Arctic law. They help produce knowledge on the Arctic with local stakeholders onboard, including the region's Indigenous peoples. The institutions are platforms for promoting research and assessments, as well as policy recommendations – recognized as soft law – for Arctic governance.

For more on this, read…

Shibata A and Others (Eds), *Emerging Legal Orders in the Arctic: The Role of Non-Arctic Actors* (1st edn, Routledge 2019) https://doi.org/10.4324/9780429461170

1.5

The Crucial Role of Arctic Research and Science Diplomacy in a Changing Climate

Ana-Maria Stan

Why is Arctic research so essential? The primary answer likely lies in the need for a deeper understanding of the Earth system, in a climate change world. Geopolitical considerations also factor in, as they encompass the political and strategic interests of individual states from the Arctic region and beyond. Arctic scientific cooperation is crucial during this period of rapid global warming, as it enables us to better comprehend current changes in Earth's systems and develop adaptation strategies.

Concurrently, many nations and other stakeholders have identified **commercial opportunities** in the Arctic, driving investment in Arctic research. Countries such as China, Singapore, South Korea, and India are increasingly active in the region, notably by setting up scientific research stations. Planning for oil and mineral extraction, as well as new shipping routes, is also advancing.

One unique characteristic of the Arctic is the so-called "**Arctic amplification**", and this is where the effects of climate change are most visible. Both the Arctic and Antarctica are the most inhospitable places on Earth, but they are also the most vulnerable to global warming. The situation is particularly problematic in the Arctic because, unlike Antarctica, the region is inhabited. Scientific activities can directly affect Indigenous peoples and local communities living there. While the treaty dedicated to Antarctica limits activities on the continent to scientific research, no similar agreement exists for the Arctic.

Geographical discoveries in the High North, coupled with advancements in theoretical knowledge and improved techniques for observation and experimentation in extreme polar conditions, have spurred Arctic scientific research across various disciplines since approximately the second half of the 17th century.

The concept of **international cooperation** became indispensable for Arctic research during the 19th century, especially in meteorology. Such

collaboration had significant practical implications for navigation and understanding climatic phenomena. The challenges and costs associated with conducting research in the Arctic further encouraged cooperation among nations.

The first international cooperation programs in the Arctic were the **International Polar Years** (IPYs). The inaugural IPY in 1882-1883, with 12 participating states, involved geophysical, meteorological, and some biological observations. It saw the creation of a network of stations around the North Pole, where regular observations using similar equipment and standardised techniques took place. Subsequent IPYs occurred in 1932-1933, 1957-1958, and 2007-2008.

The **Svalbard Treaty** (1920, Paris) further supported the development of Arctic observations and research by enabling researchers to work in the archipelago.

Another critical organisation is the **International Arctic Science Committee (IASC)**, established in 1991, following the end of the Cold War and President Gorbachev's Murmansk Initiative. Since its inception, the IASC has been a fundamental platform for international scientific cooperation in the Arctic. As a non-governmental organization, its mission is to support and facilitate research collaboration between all parties seeking knowledge about the Arctic region.

Both Arctic and non-Arctic countries maintain Arctic research programs, with different needs or motivations behind their research and varying degrees of involvement in the Arctic region.

Non-Arctic states acknowledge the significance of their engagement in polar research. Their scientific activities conducted in the Arctic can strengthen their legitimacy in dealing with Arctic affairs while informing decision-making, supporting policy, and contributing to the region's stable governance. Countries with Arctic territories typically have a longer, more robust, and comprehensive tradition of Arctic research, while non-Arctic states have a different scientific perspective due to their distance from the region. Countries with high mountains, increasingly referred to as "the third pole" may have

additional motivation and capacity for conducting Arctic research, as is the case for instance for Austria, Italy, or Switzerland.

Presently, countries participating in **Arctic science ministerial meetings** run the most active research programs. Historically, some European countries, such as the UK, France, Germany, Italy, Spain, Norway, Denmark, and the Russian Federation, have a long tradition of polar research. More recently, Asian countries, including China, Japan, and South Korea, have shown a growing interest in the Arctic region, investing heavily in polar research programs and infrastructure.

The first-ever **Arctic Science Ministerial** (ASM) took place in Washington, DC, on September 28, 2016, at the initiative of the US, to advance international research efforts. A Joint Statement of Ministers was signed during that event attended by Ministerial Delegations representing 24 nations and the European Union, namely Canada, China, Denmark, Greenland, the Faroe Islands, Finland, France, Germany, Iceland, India, Italy, Japan, Korea, the Netherlands, New Zealand, Norway, Poland, the Russian Federation, Singapore, Spain, Sweden, Switzerland, the UK, and the USA.

The report covered the following topics: (1) points of contact, (2) Arctic research goals, (3) Arctic research policy, (4) major Arctic research initiatives, and (5) Arctic research infrastructure.

Two subsequent editions of Arctic Science Ministerial meetings followed a similar path and structure. ASM2 took place in 2018, organised by Germany, Finland, and the European Commission, while ASM3 was held in 2021, co-hosted by Iceland and Japan. The latter marked the first time a non-Arctic Asian country was involved in the process. The custom is now for the meeting to be organised by the country holding the Arctic Council chair, in collaboration with another non-Arctic country with a significant Arctic research program. "**Knowledge for a Sustainable Arctic**" served as the overarching theme for ASM3, with participants keenly aware of the climate change and biodiversity challenges that require attention, particularly in the Arctic.

However, multilateral scientific cooperation has been disrupted due to the unprovoked invasion of Ukraine by the Russian Federation in February 2022. The ensuing war has significantly obstructed Arctic research and international cooperation. Numerous processes, including the Arctic Science Ministerial meetings, have been put on hold. Arctic research is entering a period of uncertainty.

For more on this, read…

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Väätänen V, 'Political geographies of the 'changing' Arctic: perspectives on the interface between politics and the region as a process' (2020) 49 Nordia Geographical Publications 1 https://nordia.journal.fi/article/view/95703

CHAPTER 2: PRINCIPLES OF INTERNATIONAL (ENVIRONMENTAL) LAW AND THE ARCTIC

2.1

General Principles of International Environmental Law and the Arctic

Kamrul Hossain

The development of international environmental law has been shaped by the understanding that the environment knows no borders. The increasing awareness of the value of cross-border cooperation in the areas of shared natural resources, cross-border pollution, climate change, the depletion of natural resources, and the loss of biodiversity has contributed to a shift in our mindset. We have begun to rethink how international environmental governance can be structured in response to the dynamics of interconnected elements of the natural system. The so-called "ecological era" in the 1960s shaped this mindset and led to the creation of a framework for a new branch of law – international environmental law. A series of systematic initiatives and processes helped promote fundamental norms as the principles of international environmental law. Among these processes, the 1972 Stockholm Conference on the Human Environment and the 1992 Rio Declaration on Environment and Development were particularly crucial. These two developments led to the birth of substantive norms considered to be principles of international environmental law, which provide useful guidelines for environmental management and cooperation. Today, international environmental law and policy developments are guided by a set of principles, the core of which are presented in the following:

Principles	Descriptions
Sovereignty	As a general norm, states have the sovereign right to exploit their resources according to national policies. However, states incur a responsibility whereby activities within their jurisdiction or control may not cause harm to the environment of other states.
Cooperation	States should cooperate in addressing the environmental concerns they share, an example being shared water courses. As environmental problems typically transcend national

	boundaries, their solution requires collaborative efforts. These in turn have given rise to environmental treaties.
Prevention	States have the duty to take preventive measures at an early stage to avoid or minimize or de-escalate environmental harm.
Precaution	The precautionary principle maintains that a lack of scientific certainty cannot be a justification for postponing cost-effective measures to prevent environmental damage. It implies that all possible measures should be undertaken in the absence of scientific consensus on the likelihood of risk to the environment.
Preservation and conservation	Both preservation and conservation aim to protect natural resources and promote biodiversity. While preservation aims to maintain and protect resources in their existing state, conservation emphasizes their responsible use and sustainable management with a view to their long-term viability. Both interests involve safeguarding natural areas, ecosystems, biodiversity, cultural heritages, as well as the human-built environment.
Polluter pays	States are responsible for ensuring that activities within their jurisdiction or control do not cause damage to the environment of other states or areas beyond national jurisdiction. Liability regimes have been created that aim to hold polluters accountable and provide for compensation to affected parties.
Common but Differentiated Responsibilities	The principle recognizes states' disparate capabilities and responsibilities in addressing global environmental challenges. Global environmental justice cannot be achieved with the distribution of equal responsibility in an unequal landscape; for example, the share of greenhouse gas emissions is not equal for developed and developing countries.
Common Concern and Common Heritage	These principles, which emerged in the 1970s and 1980s, emphasize that the environment is a common concern of humanity and a common heritage of present and future generations that states have a shared responsibility to protect.

Integration	The principle calls for integrating environmental considerations into decision-making processes at all levels, including formulation of economic and social policies. It recognizes that environmental protection should not be pursued in isolation but should be integrated into broader development strategies.
Sustainable Development	States have a duty to promote sustainable development, defined as meeting the needs of the present without compromising future generations' ability to meet their own needs.
Intergenerational Equity	As aligned with sustainable development, intergenerational equity refers to the need of future generations, including the unborn ones, to have access to the same environmental resources and benefits as the present generation. It calls for the responsible use and conservation of natural resources to ensure their availability for future generations.

The application of these principles is reflected in the Arctic governance framework, which is shaped by both hard-law and soft-law processes. The sovereignty regimes of the eight Arctic states comprise the region. Cooperation among the states, initiated primarily at the beginning of the 1990s, has been driven by a spirit of making the region a "zone of peace." Environmental protection and sustainable development were set as the core agenda for Arctic governance. Establishing the Arctic Environmental Protection Strategy (AEPS) in 1991 was the first formal step towards cross-border cooperation among the Arctic states. The AEPS was replaced in 1996 by the Arctic Council, which has upheld cooperation on environmental matters. The Council sustains and advances the principles stated above through the work of its six Working Groups. The titles of these Working Groups reflect the integration of the principles enumerated above. For example, PAME (Protection of the Arctic Marine Environment) advances prevention and precaution; AMAP (Arctic Monitoring and Assessment Programme) focuses primarily on environmental impact assessments; CAFF (Conservation of Arctic Flora and Fauna) undertakes efforts directed at preservation and conservation; and the EPPR (Emergency Prevention, Preparedness and Response) reflects the importance of prevention and readiness to act in cases of emergency.

Several of the above principles, such as cooperation among the sovereignty regimes, the precautionary principle, prevention, preservation and conservation, and integration, also underlie global environmental regulations that apply to the Arctic, examples being the UN Convention on the Law of the Sea (UNCLOS), the Convention on Biological Diversity (CBD), as well as the UN Framework Convention on Climate Change (UNFCCC) and its subsequent processes. At the regional level, the Polar Code, the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention), the Central Arctic Ocean Fisheries Agreement (CAOFA), and the treaties adopted under the auspices of the Arctic Council, such as the Arctic Search and Rescue Agreement (SAR Agreement) and the Agreement on Cooperation on Marine Oil Pollution Preparedness and Response (MOSPA) reflect the importance given to issues such as cooperation, prevention, precaution, sustainable development, and inter-generational equity.

For more on this, read…

Tanaka Y & B Martinez Romera, 'Emerging Issues on Arctic Environmental and Climate Change Governance: Introduction' (2020) 35 The International Journal of Marine and Coastal Law 429 https://doi.org/10.1163/15718085-BJA10034

2.2

State Sovereignty and the Arctic

Kamrul Hossain

State sovereignty is a key principle for global environmental governance. Sovereignty is the capacity to exercise absolute authority, meaning that a state has the exclusive jurisdiction over its territory in legal, administrative, and judicial matters. This territory is demarcated by an externally defined boundary, whereby state sovereignty has two dimensions – internal and external. Internal sovereignty applies to all spaces within the country's defined boundary: land and waters – including surface waters of rivers, lakes, subsurface waters and underground watersheds – all fall under a state's absolute national jurisdiction. Sovereignty also extends to sea or ocean areas, demarcated in accordance with the law of the sea. For example, a coastal state's sovereignty extends twelve nautical miles seawards from its coast line; this area is known as the state's territorial waters. States also enjoy sovereignty over the atmosphere above their defined territory. Although the upper limit of this region has not been determined with any precision, the generally accepted norm suggests that space activities do fall under the jurisdiction of territorial states. External sovereignty refers to a state being free from interference in its internal affairs by other states. However, states negotiate among themselves and share norms of behavior for cross-border environmental governance. Consistent with the principles of external sovereignty, states bear a responsibility not to cause any damage to the environment of other states or in areas beyond their national jurisdictions.

The evolution of international environmental law in the early twentieth century derived from an awareness of a duty to not to cause any harm to other states while exercising sovereignty, honoring what is known as the "no harm" doctrine. The *Trail Smelter Arbitration* from the 1920s declared that "no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein." A similar principle can be seen in the *Corfu Channel case* of 1946, where the International Court of Justice concluded that it is "every State's obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States." Classical international law embraces "due diligence" as one of its fundamental principles, and international

environmental law is rooted in the norm. Principle 21 of the Stockholm Declaration of 1972 and Principle 2 of the Rio Declaration of 1992 reflect endorsement of the norm in the development of international environmental law:

Principle 21 of the Stockholm Declaration, 1972	**Principle 2 of the Rio Declaration, 1992**
"States have the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction."	*"States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own* ***environmental and developmental policies****, and* ***the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction."***

In sum, states' sovereignty entails a condition whereby their authority to regulate and protect their environment is contingent on a duty to prevent activities that may cause harm to the environment beyond their borders. It recognizes that states should not invoke their sovereignty to allow activities that would cause significant environmental damage to other states or the global environment. They limit their sovereign authority, for example, by concluding treaties on concerns that may have transboundary dimensions. Examples of such issues are climate change, biodiversity management and conservation, shared water resources, as well as pollution of seas, rivers, lakes and air, impacts cannot be contained within the national territorial jurisdiction. These agreements establish common standards, mechanisms for cooperation, and dispute resolution procedures, allowing states to work together to protect the environment while respecting their sovereignty.

The Arctic is a transnational region consisting of land, water, and resources shared by eight sovereign states. At its center lies the Arctic Ocean, on which five states have coastlines and enjoy sovereignty and sovereign rights over certain parts of marine areas as determined by the law of the sea. The countries

assert their sovereignty over the Arctic and collaborate among themselves through various legal and political means. The law applicable to the Arctic focuses on the protection and sustainable management of the region's fragile ecosystem, which faces unique environmental challenges. The Arctic has gained increasing attention due to climate change, a development which has led to the melting of sea ice and, as a result, the potential opening of new shipping routes and access to untapped natural resources. This has raised interest in the region from non-Arctic states as well. While non-Arctic states do not possess the same level of sovereignty in the Arctic as the coastal states, they do have certain rights, including the freedom of navigation and overflight under international law. Hence, on the ground, the United Nations Convention on the Law of the Sea (UNCLOS) and the customary law of the sea provide a framework for Arctic governance. Cooperation on issues such as governance of the marine environment, conservation of marine living resources, extraction of marine resources, and shipping and navigation is the primary focus.

The Arctic coastal states may assert their legal rights to adopt and apply exceptional and stricter rules in their exclusive economic zones in order to restrict freedom of navigation, as permitted under Article 234 of UNCLOS. The impetus for doing so is that the marine areas are ice-covered for most of the year, and severe climatic conditions in the marine areas call for rules and regulations for the prevention, reduction and control of marine pollution. The coastal states also participate in developing norms of behavior through international and regional arrangements, such as the International Maritime Organization (IMO). One example that merits citing is the Polar Code, which entered into force in the beginning of 2017 and regulates shipping in inhospitable waters, such as in the Arctic. The delimitation of overlapping continental shelves in the Arctic is an area in which the Arctic states have been cooperating since the beginning of the 2000s.

The Arctic states' environmental governance is supplemented by institutional frameworks such as the Arctic Council, of which all Arctic states are members. The Council focuses on environmental protection, sustainable development, and scientific research in the region. Regulatory and institutional cooperation encompasses many areas of concern, such as conservation of biodiversity, sustainable development, the prevention of and response to oil spills,

environmental impact assessments in transboundary contexts, eco-system-based Arctic governance, and integration of the region's Indigenous peoples in environmental governance. Overall, the complex intersection of Arctic sovereignty and applicable environmental law requires ongoing international cooperation, dialogue, and dynamic legal frameworks to create an environmental governance that respects the rights and interests of Arctic and non-Arctic states as well as the region's Indigenous communities.

For more on this, read…

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2.3

The Precautionary Principle in Arctic Environmental Governance

Kamrul Hossain

The precautionary principle is one of the fundamental principles of international environmental law. In simplest terms, the principle reads as follows: if an action or a policy carries a potential risk of causing severe threats or irreversible damage to the environment or human health, a lack of scientific certainty cannot be a justification for postponing cost-effective measures to prevent environmental damage. The point is that all possible measures should be undertaken in the absence of scientific consensus on the likelihood of risk to the public good and environment. In other words, if there are reasonable grounds for concern about potential harm, precautionary measures should be taken, even if cause-and-effect relationships are not fully understood or established. The burden of proof that an action is not harmful falls on the party carrying it out. The principle has become a powerful tool in international environmental law and policy.

A reference to the precautionary principle can be found in policy documents in the 1980s, but it was not popularized until it appeared in Principle 15 of the Rio Declaration on Environment and Development (1992). It has been widely incorporated into most multilateral environmental agreements from 1990 onward. The principle has been one of the bases of the European Union's environmental policy under the 1992 Maastricht Treaty and the 1997 Amsterdam Treaty. The main idea of precaution is avoidance of ecological harm; it is also to be applied when the consequences of non-action can be particularly serious or irreversible, as in the case of large-scale degradation of the environment or the extinction of a species.
Following are some key features of the precautionary principle:

- Proactive Action: It encourages decision-makers to take preventive measures to avoid or minimize potential harm rather than waiting for conclusive scientific evidence.

- Science-Based Decision-Making: While lack of scientific certainty should not be used as a barrier to action, decisions should be based on the best available scientific knowledge and evidence.

- Risk Assessment: The principle emphasizes assessing the potential risks and uncertainties associated with an activity or substance before taking any action.

- Cost-Effectiveness: Decisions should also consider the costs and benefits of different courses of action and the potential impacts on various stakeholders.

- Participation and Transparency: The principle promotes public participation in decision-making processes and the dissemination of information to ensure transparency and accountability.

For the Arctic, the implications of the precautionary principle unquestionably lie in its value for the region's fragile environment and climatic conditions, which are susceptible to changes. Climate change impacts in the Arctic are not confined to the plainly vulnerable region: they have widespread consequences for the rest of the world and planetary processes. All relevant developments and human activities in the Arctic, such as resource exploitation and onshore and offshore transportation, must be guided by the spirit of the precautionary principle. The preservation of the Arctic's rich biodiversity, including marine biodiversity within and beyond national jurisdiction, must be considered.

The Arctic ecosystems are complex and often poorly understood. Hence, irreversible damage can occur if unsustainable practices continue unchecked. As they stand, environmental policy and regulations applicable in the Arctic rather exhaustively incorporate the precautionary principle. Following are some examples:

One of the first agreements negotiated by the Arctic states was the International Agreement on the Conservation of Polar Bears (the Polar Bear Agreement) of 1973. The treaty was designed to protect polar bears and conserve their environment to ensure their long-term survival in their natural habitats. Given the vulnerability of polar bear populations to climate change, habitat loss and other stressors threaten their survival. The Polar Bear Agreement reflects the spirit of the precautionary principle, as it prohibits or restricts hunting, capturing, and killing of bears except for subsistence

purposes or the protection of human life. Additionally, the emphasis placed on sustainable management of the bear population through monitoring, information exchange, and enforcement of laws and regulations to combat illegal trade and poaching exemplifies precautionary measures designed to guide conservation efforts.

The Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) is an international agreement adopted in 1992. The Agreement aims to protect and conserve the marine environment the North-East Atlantic region, which includes part of the Arctic Ocean. As part of the OSPAR Convention, the precautionary principle is applied to managing and protecting the marine environment. It recognizes that marine ecosystems can be vulnerable to potential impacts of human activities, such as pollution, habitat destruction, and overfishing. Accordingly, the precautionary principle urges OSPAR Contracting Parties to take action to prevent or minimize harm, even when there is limited scientific knowledge or a measure of uncertainty about the exact consequences of certain activities.

The Central Arctic Ocean Fisheries Agreement (CAOFA) is an international agreement that was adopted in 2018 and entered into force in 2021. The parties to the Agreement include Arctic and non-Arctic countries, as well as the EU, all of which have fishing interests in the Central Arctic Ocean region. The Agreement aims to prevent unregulated commercial fishing in the high seas portion of the Central Arctic Ocean until there is sufficient scientific knowledge about the region's ecosystems and fish populations. The Agreement recognizes the need for effective management and conservation measures as well as cooperation among states to ensure the long-term sustainability of any future fishing activities.

The Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic (MOSPA) is an international agreement that aims to enhance Arctic states' preparedness and response capabilities in addressing marine oil pollution incidents in the region. It was adopted in 2013 and entered into force in 2017. MOSPA recognizes the unique environmental sensitivity of the Arctic and the potential risks associated with oil spills in what is a fragile ecosystem. State parties to the Agreement must establish and maintain appropriate response capabilities – including the availability of equipment,

personnel, and resources – to effectively respond to oil spills. Such preparedness reflects the adoption of precautionary measures to minimize the risks associated with oil pollution in the Arctic and protect the region's delicate marine environment.

For more on this, read…

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2.4

Sustainable Development and the Arctic

Ebru Caymaz

Although there has been extensive research in the field of sustainability, sustainable development in the Arctic remains one of the understudied subjects. As a worrisome factor, environmental change has become evident in recent assessments of ocean acidification, increasing water temperatures, sea ice retreat, melting glaciers, changes both in fauna and flora, and thawing permafrost. In some regions, fisheries policy also presents governance challenges due to the legal treaty regime. It is also worth noting that the frequent use of sustainability creates a paradox as the Arctic's economic potential involves the exploration and exploitation of the Arctic's unique natural resources.

On the other hand, plentiful research has been committed to suggest enhancements for the Arctic governance arrangements in consideration of the challenges affecting the region adversely. Intending the pursue that goal, international legal research often focuses on examining governance frameworks of regions similar to the Arctic and investigating their applicability within the territory. Since the management of non-renewable natural resources necessitates a strengthened legal framework to balance environmental protection and development of Arctic communities and sustainable development in the Arctic is closely related to resource exploitation, there is an obvious need for inter-, multi- and trans-disciplinary studies as well as a comprehensive framework for implementation strategies to respond pervasive challenges. Accordingly, a broad diversity of governance matters including Arctic policies, sustainable development, international law, indigenous rights, the science-policy interface as well as Arctic regional cooperation have taken remarkable attention in recent years.

While the Arctic states have reacted to the emerging non-Arctic actors by gradually reinforcing the Arctic Council through the implementation of legally binding instruments, the non-Arctic states proceed to publish research-oriented Arctic policies in which their presence have mainly been legitimized by the global effects of human-induced climate change. However, unlike Antarctica, sovereignty and sovereign rights related to marine areas have an

indispensable role in Arctic governance. The sovereignty of all the land area firmly belongs to the Arctic states while their exclusive maritime jurisdiction covers much of the Arctic waters. Due to its highly complex governance framework – international, national, and regional levels as well as the EU – the Arctic-wide cooperation process has been settled on a soft law-based trend that focuses on promoting non-legally binding guidelines, best practices, and recommendations.

On the other hand, based upon three pillars, sustainable development entails a threefold process similar to sustainability. In order to implement sustainable development, the first step is to ensure a political system which encourages active participation in decision-making processes. The other step can be explained as developing an economic system which generates sustained surpluses while the last step includes building a social system which delivers solutions to tensions resulting from disharmonious development. The long-termed process also acknowledges human rights based on balanced life conditions in terms of economic, environmental, and social norms.

Sustainable development in the Arctic also encompasses Arctic communities and their economic and social conditions. In this process, the Arctic Council implements a similar but simplified version of sustainable development. The Arctic Environmental Protection Strategy (AEPS) particularly determined six environmental problems with high priority; radioactivity, persistent organic contaminants, acidification, heavy metals, oil pollution, and noise. International environmental protection treaties and necessary actions to address these threats were also outlined. Notably, six working groups were developed under the auspices of the Arctic Council: *Conservation of Arctic Flora and Fauna (CAFF), Protection of the Arctic Marine Environment (PAME), Emergency Prevention, Preparedness and Response (EPPR), Arctic Monitoring and Assessment Programme (AMAP), Sustainable Development Working Group (SDWG)* and *Arctic Contaminants Action Program (ACAP).*

Accordingly, environmental impact assessments as well as the limitations of the Arctic Council have initiated further debates regarding the sustainable development of the region. As a consequence, there has been a heightened focus on Arctic governance based upon climate change-driven challenges, especially in the areas of fisheries, Arctic maritime navigation, and oil spills.

Furthermore, there is still limited knowledge about non-indigenous dwellers in the Arctic. While the vast majority of sustainability research investigates indigenous communities and societies, more knowledge is needed especially where the non-indigenous and transient population is relatively high.

Establishing the SDWG in 1998 and adopting the sustainable development goals of the United Nations (UN) in 2017 can be seen as the prominent steps by the Council. Besides, developing major projects such as *Arctic Food Innovation Cluster* and *Blue Economy* has advanced sustainable development while enhancing the economic, environmental, and social conditions of Arctic communities. Currently, there are several projects focused on societies & cultures, businesses & economies, health & well-being, as well as enabling infrastructure. The Working Group further plans to implement *the Nexus between Water, Energy, and Food* Project in which it is aimed to achieve sustainable management of water, provide access to sustainable and affordable energy, end hunger, and ensure food security. These goals are also closely interconnected to the UN's sustainable development goals. Besides, the Council plans to promote inclusive collaboration between other Working Groups, Indigenous Permanent Organizations, as well as academic institutions to ensure an efficient sustainable development process across the Arctic.

In near future, due to the accelerated effects of climate change, emerging economic activities particularly based on transportation is expected be expanded in the region. Therefore, developing the Polar Code is another milestone to mitigate shipping-related risks navigating through emerging Arctic Sea Routes. Since achieving environmental sustainability while fulfilling the sustainable development goals necessitates a multi-lateral approach and governance, Arctic states and the Council collaborate with several actors including the non-Arctic states as well. For instance, the UN-Habitat plans to implement a major project to enhance the adaptive capacity of the Arctic cities. Concordantly, a new and many-sided Arctic governance framework has emerged in which institutions, individuals, agencies, and organizations are inclusively connected at multiple organizational levels.

For more on this, read…

Kristoffersen B and O Langhelle, 'Sustainable Development as a Global-Arctic Matter: Imaginaries and Controversies' in: K Keilz and S Knecht (eds), *Governing Arctic Change. Palgrave Macmillan* (Palgrave Macmillan 2017) https://doi.org/10.1057/978-1-137-50884-3_2

2.5

Environmental Impact Assessments and the Arctic

Kamrul Hossain

The Environmental Impact Assessment (EIA) is a key principle of environmental law. From the 1960s onward, the growing awareness of the negative environmental consequences of industrial activities, infrastructure projects, and large-scale development has spawned environmental movements calling for environmental considerations to be incorporated in decision-making processes. The concepts of environmental assessment and environmental impact statement were initially introduced in the United States in its National Environmental Policy Act (NEPA) of 1969. Thereafter, other countries – Australia, Canada and many European nations among them – adopted similar frameworks for assessing environmental impacts in connection with developmental activities. At the same time, financial institutions, such as the World Bank, embraced a requirement that an EIA be carried out before funding could be granted for major development projects.

The point of EIA is to evaluate and mitigate the potential impacts of human activities on the environment. It is a systematic process carried out before a project is begun that involves identification, prediction, evaluation and eventually communication of the likely effects of the project on the environment. It involves the assessment of both direct and indirect effects and both short- and long-term impacts. EIAs help to adopt measures necessary to mitigate environmental harm. Environmental issues often have economic and social impacts, and EIAs thus also contribute to measures needed in these sectors. Following are the concrete objectives of EIA:

Prediction and Evaluation: EIA assesses the nature and magnitude of potential impacts of a proposed activity and its significance. The process helps analyze potential harm to the environment affecting air, water, land, flora, fauna, ecosystems, human health, and cultural heritage, or to socio-economic factors.

Mitigation and Exploration of Alternatives: EIA encourages the identification of measures to avoid, minimize, or mitigate adverse impacts. It also urges exploration of alternative project designs or locations that may have lesser environmental consequences.

Public Participation: EIA emphasizes the importance of public involvement in the decision-making process. It provides opportunities for concerned individuals, communities, and organizations to participate, express their views, and contribute to the assessment of potential impacts.

Informed Decision Making: EIA provides relevant information and analyses to decision-makers such as government agencies and regulatory bodies, enabling them to make informed decisions about approving, imposing conditions on, or rejecting projects. EIA ensures that environmental considerations are integrated into the decision-making process.

Monitoring and Follow-up: EIA includes provisions for monitoring the implementation and effectiveness of mitigation measures during project construction, operation, and decommissioning. This helps ensure that the predicted impacts are being taken into consideration and the proposed mitigation measures are being adhered to, making it possible to take appropriate actions if necessary.

Today, EIA is a widely recognized concept in environmental law, where it serves as a tool to promote sustainable development. Indeed, many international regulatory mechanisms incorporate provisions related to EIA, examples being the United Nations Framework Convention on Climate Change (UNFCCC) of 1992, the Convention on Biological Diversity (CBD) of 1992, and the World Heritage Convention of 1972. These obligate state parties to conduct EIAs for activities that may undermine climate mitigation, biodiversity, and cultural heritage, respectively. The regulatory frameworks most explicitly setting EIA as the legal norm are the Convention on Environmental Impact Assessment in a Transboundary Context (the Espoo Convention of 1991) and the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (the Aarhus Convention of 1998). The former aims to prevent, mitigate, and control significant adverse transboundary environmental impacts arising from proposed activities, and requires parties to conduct transboundary EIAs to provide opportunities for affected stakeholders to participate in the decision-making process. The latter establishes rights and obligations relating to public participation in environmental decision-making

by emphasizing the importance of public access to information, including EIAs.

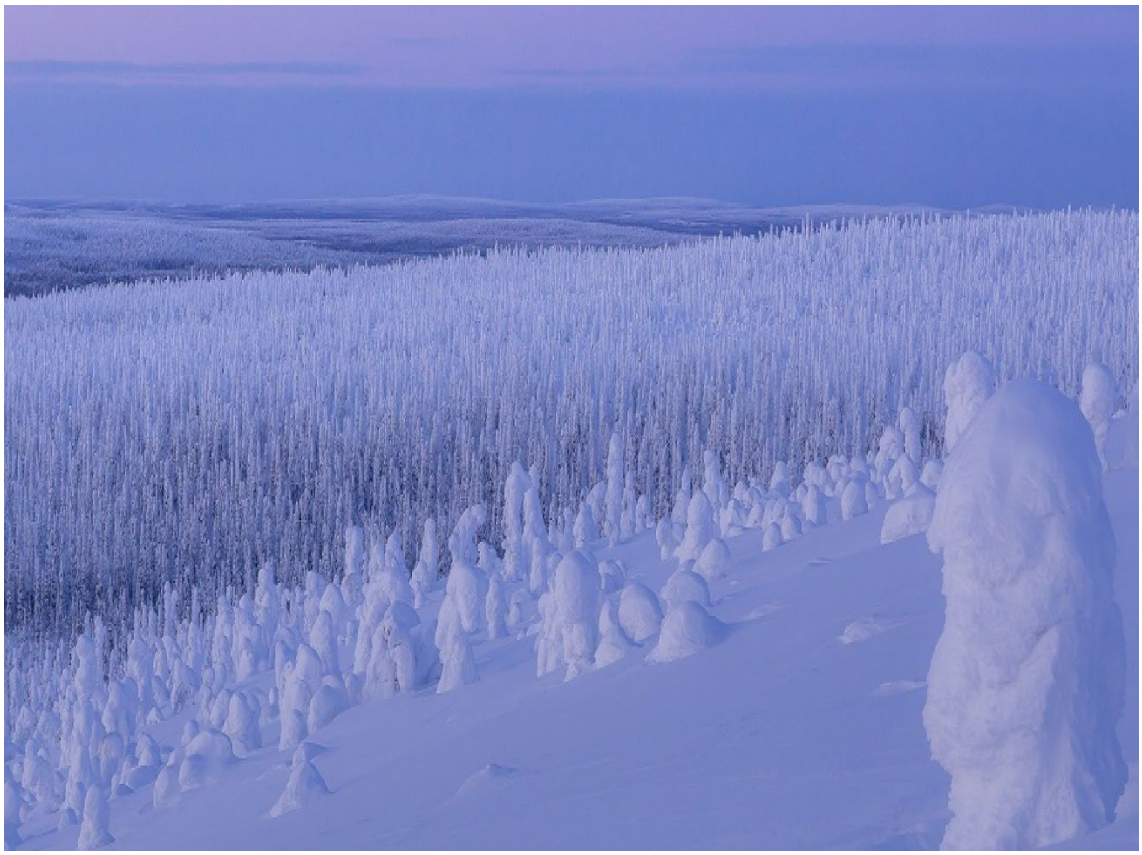
Where the Arctic is concerned, EIA plays a crucial role given the region's unique characteristics and vulnerability, which make it more susceptible than others to significant changes driven by climate change impacts. The rise in temperature, the melting of glaciers and sea ice, and the resulting open and easy access to the Arctic through sea routes offer opportunities for extraction and transportation of natural resources. Given that the Arctic is home to diverse ecosystems, including sea ice, permafrost, tundra, and unique wildlife species such as polar bears, seals, and whales, human activities entail adverse consequences for the region and its population. Accordingly, oil and gas exploration, shipping, fishing, tourism, and infrastructure development, must be counterbalanced by EIA. Particular consideration must be given to potential impacts such as biodiversity loss, destruction of or disturbance to habitats, oil spills, introduction of invasive species, increased noise pollution, and disruption of traditional Indigenous livelihoods.

EIA for Arctic projects often involves close collaboration among scientific experts, Indigenous communities, governments, and other stakeholders. The initiatives put forward by the Arctic Council offer significant input enabling assessment of the region’s environmental conditions on a constant basis. For example, the AC Working Group – the Arctic Monitoring and Assessment Programme (AMAP) – produces scientific reports that provide assessments, evaluations, and recommendations relating to the Arctic’s environmental conditions.

As regards regulatory processes, all the Arctic states are either parties or signatories to the Espoo Convention and thereby, in principle, accept or must comply with the requirements for conducting an EIA to assess transboundary environmental impacts. Such assessments help identify potential long-term environmental damage. Other instruments embodying the spirit of EIA include the 2018 Agreement on Enhancing International Arctic Scientific Cooperation; the 2013 Agreement on Cooperation on Marine Oil Pollution Preparedness Response in the Arctic; the 2011 Arctic Search and Rescue Agreement; the Polar Code, effective from 2017; and the 2018 Central Arctic Ocean Fisheries Agreement.

For more on this, read…

Bram N, and K Hanna, 'Environmental Assessment in the Arctic: A Gap Analysis and Research Agenda' (2015) 68 Arctic 341 http://www.jstor.org/stable/43872253



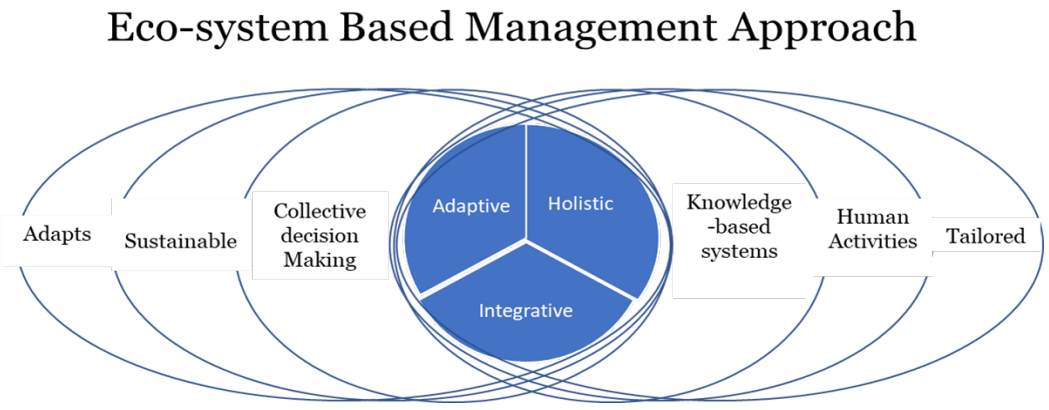
CHAPTER 3: INTERNATIONAL REGULATORY FRAMEWORKS APPLICABLE TO THE ARCTIC

3.1

An Ecosystem-based Approach to Arctic Governance

Chhaya Bhardwaj & Kamrul Hossain

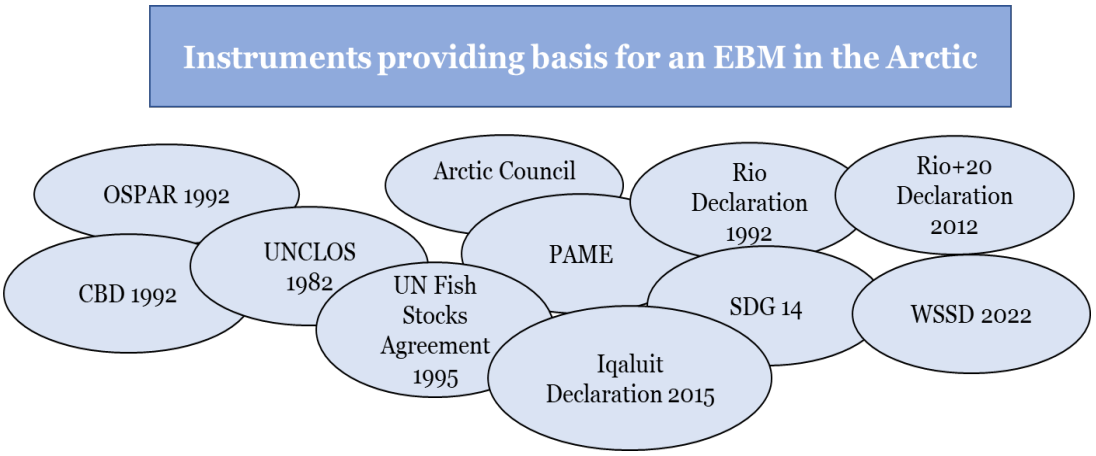
An ecosystem is a complex network of interconnected natural systems in which biological organisms – animal and plants – interact with a given physical environment; it can be seen as a "bubble of life". The Arctic is a geographical space with a unique ecosystem. This space is currently under immense pressure from the impacts of climate change and other stressors, such as marine pollution from discharge of oil and toxic chemicals, biodiversity loss and the introduction of invasive species. Strategies for governing the Arctic should consider the subtle relationship that exists among all the region's living species and the physical processes shaping their environment. In particular, any form of governance must take into account the changes occurring in that environment: temperatures are rising; ocean currents are shifting; and ice is melting. The primary goal of such strategies is to establish a healthy, productive and resilient ecosystem, one that thrives while providing services which meet human needs sustainably. Ecosystem-based management (EBM) refers to a formula where human activities are integrated into the management mechanism. It is a holistic scheme that draws on the knowledge about ecosystems and the stressors influencing them. In the Arctic, the EBM approach has been found to suit the region best because of its complex, sensitive, cold-adaptive and fragile ecosystem services.



Applying EBM would mean taking the totality of impacts on the Arctic ecosystem into account in the region's governance mechanism. It is a "collaborative" management technique which can be instrumental in preserving biodiversity and the natural environment and, at the same time, making an effort to limit human activity in pristine areas. There is no commonly agreed definition of what an EBM encompasses. The Arctic Council – a club of eight Arctic States – conceptualizes the approach as comprehensive and integrated management of human activities supported by best available science and traditional knowledge about the health of the ecosystem and its dynamics. Fundamentally, the EBM approach is a flexible and adaptive tool, as it responds to the dynamic state of existing knowledge and evolves as that knowledge evolves. It makes it possible to assess the future needs of the region in relation to its natural resources. Several other conceptions of EBM can be seen at work in practice, especially in the management of marine areas: integrated oceans management, demarcation of marine protected areas (MPAs), marine spatial planning (MSP), identification of large marine ecosystems (LMEs) and ocean zoning. All of these frameworks offer an integrated approach to preventing marine environmental pollution by regulating human activities. In sum, they are tools for managing the full range of human activities to respond to the dynamic behavior of marine ecosystems.

Several international instruments have recognized, and endorsed, EBM in their structures. Although the normative significance of most of these instruments reflects the soft-law spirit, hard-law mechanisms can be found that impose strict legal obligations. For example, the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR, 1992) regulates human activities along the lines of EBM. OSPAR institutes protective, conservation, restorative or precautionary measures for the purpose of safeguarding species, habitats, ecosystems or ecological processes in the marine environment. In creating MPAs, one of which is located in the High Sea in the North-East Atlantic marine area, the Convention applies to part of the Arctic Ocean. The basis for creating an MPA is found in the processes set out in the Convention on Biological Diversity (CBD) in combination with the provisions of the UN Convention on the Law of the Sea of 1982. The parties to the OSPAR Convention incur a legal obligation to comply with rules applicable to MPAs created by the Convention. Today, EBM has become has become fundamental to the work of the Arctic Council,

especially that on ocean management. Council-initiated soft-law mechanisms have highlighted the need for the development of MPA networks. For example, in 2015 the working group Protection of Arctic Marine Environment (PAME) released a framework for a Pan-Arctic Network of Marine Protected Areas, highlighting its contribution to EBM.



Several other instruments can be seen as embracing an EBM approach as well. The Rio Declaration of 1992, the Rio+20 outcome – the Future We Want – of 2012, and the Johannesburg Plan of Implementation from the World Summit on Sustainable Development (WSSD) of 2022 all refer to EBM, underlining its importance.

There are multiple drivers and factors to consider in an EBM approach for the Arctic that interact with biophysical, socio-economic and political conditions. Rising temperatures and melting ice sheets – sources of substantial uncertainty in local communities – are some of the major biophysical and socio-economic drivers of change in the region. The Arctic marine environment is wide-ranging and hosts economic activities by a variety of actors. This diversity urges the adoption of EBM as a coherent regional approach. Indeed, it has been submitted that an integrated approach, such as EBM, is a suitable mechanism for maintaining the Arctic's pristine environment and eco-system services. This is a particularly cogent argument in the case of marine areas, given that the Arctic as a physical space extends over several jurisdictions and national boundaries, including the central Arctic Ocean – an area beyond national jurisdictions. Recognizing the value of an EBM approach, the Arctic Council's Iqaluit Declaration of 2015 acknowledged that the Arctic environment needs

management embodying such approach. The Declaration provided crucial impetus for developing guidelines to apply EBM in the region.

The project Best Practices in Ecosystem-based Oceans Management, carried out by Arctic Council working groups, such as PAME and SDWG, has put forward six principles for successful implementation of EBM in the Arctic: (i) flexible application, (ii) integrated and science-based decision-making, (iii) commitment to ecosystem-based oceans management, (iv) area-based approaches and transboundary perspectives, (v) stakeholder participation, and (vi) adaptive management. These were derived from work observing the best practices in ecosystem-based ocean management in the Arctic countries. These practices serve as encouraging examples of well-informed protection for the Arctic marine environment.

For more on this, read…

Wienrich N and Others, 'The ecosystem approach to marine management in the Arctic: Opportunities and challenges for integration' (2022) 9 Frontiers in Marine Science 1 https://doi.org/10.3389/fmars.2022.1034510

3.2

The United Nations Convention on the Law of the Sea, the Arctic, and Marine Environmental Governance

Christine Pichel

The 1982 United Nations Convention on the Law of the Sea (UNCLOS) sets out the legal framework within which all activities in the ocean and seas must be carried out. The Convention was adopted at Montego Bay on 10 December 1982 and entered into force on 16 November 1994.

UNCLOS establishes a series of maritime zones: territorial sea, contiguous zone, exclusive economic zone (EEZ), continental shelf (CS), high seas (HS), and international seabed area (the 'Area'). For each of these maritime zones, the Convention establishes a different legal regime, fixes its maximum breadth, and provides for specific rights and obligations of States. For instance, under UNCLOS a coastal State has sovereign rights for the purpose of exploring and exploiting, conserving and managing natural resources in its EEZ, which can extend up to 200 nautical miles from its coastline. Other States, however, enjoy freedom of navigation in the EEZ of a coastal State.

The legal framework established in UNCLOS applies to the Arctic Ocean. Therefore, the rights and obligations of States provided for in UNCLOS, including the freedom of navigation, the right to conduct marine scientific research and the obligation to protect the marine environment, are also applicable to the Arctic Ocean.

The Arctic Ocean is surrounded by five coastal States: Canada, Denmark (Greenland), Norway, Russia and the United States (US). The Arctic Ocean includes areas within the national jurisdiction of those countries (territorial sea, contiguous zone, EEZ and CS). However, most of its waters are considered part of the HS and, the portion of the seabed area beyond the limits of the extended CS, once determined, will constitute the Area. The US is not a party to UNCLOS, but they have recognized that the Convention contains provisions that reflect customary international law (i.e., rules that are binding on all States, including those that are non-parties to UNCLOS). In 2008, the five Arctic Ocean coastal States highlighted in the Ililussat Declaration that the

law of the sea provides an appropriate governance framework for the Arctic Ocean – this also meaning that in their view, no new framework was needed. As an umbrella Convention, UNCLOS not only lays down a general legal regime governing all uses of the oceans and its resources, but also provides the framework for further development of specific areas of the law of the sea.

Part XII of UNCLOS, which addresses the protection and preservation of the marine environment, is of particular relevance to the Arctic. It imposes an obligation on States to protect and preserve the marine environment that applies to all maritime zones, including the Arctic Ocean. It also elaborates on the measures to be taken by States, individually or jointly, to prevent, reduce and control pollution of the marine environment from any source (e.g., oil spills or pollution from shipping). Also, the Arctic Ocean is generally considered as an ice-covered area under Article 234 of UNCLOS. This provision grants coastal States the right to enact and enforce special regulations for the control of marine pollution in ice-covered areas within the EEZ, where the ecological balance is recognised as particularly sensitive. However, such laws and regulations shall have due regard to navigation and the protection and preservation of the marine environment. As regards shipping and the protection of the marine environment, the general provisions of UNCLOS are complemented by international shipping rules and standards adopted by the International Maritime Organization, such as the Polar Code regulating shipping in the Polar regions, including maritime safety and environmental aspects. The precautionary approach also applies to activities in the Arctic Ocean. The Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean includes provisions that prohibit commercial fishing in that area until scientific data demonstrates that such fishing can be sustainable.

The three implementing agreements adopted under UNCLOS also apply to the Arctic Ocean. Part XI of UNCLOS and its 1994 Implementing Agreement is particularly important as it provides for the general legal framework that regulates deep-seabed mining in the Area, including in the Arctic Ocean. Under UNCLOS, the International Seabed Authority (ISA) functions as the international organization that further regulates all activities related to the prospecting, exploration, and exploitation of mineral resources in the Area for the benefit of humankind. The ISA has the mandate to ensure the effective

protection of the marine environment from potential harmful effects arising from deep-seabed mining. The 1995 United Nations Fish Stock Agreement provides the general legal framework for possible future fisheries in the HS portion of the Arctic Ocean. It is particularly relevant for this area regarding the establishment and functioning of Regional Fisheries Management Organizations and the application of the precautionary approach to fisheries. Once it enters into force, the Agreement under UNCLOS on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (known as 'BBNJ Agreement') will allow, in particular, the establishment of marine protected areas in the HS areas of the Arctic Ocean.

Climate change remains the biggest global challenge that humanity is facing, and the Arctic is perceived as a region more vulnerable to climate change than the rest of the world. Rapid sea ice melting may lead to the opening of new Arctic shipping lanes (e.g., the Northern Sea Route, the Northwest Passage, and the Transpolar Sea Route), and shipping increases could consequently lead to higher emissions of black carbon and other pollution, including potential oil spills. This, in turn, may lead to significant environmental and socioeconomic impacts for the Arctic, such as the disturbance of marine environments by vessel oiling, air pollution, noise, collisions, loss of sea mammals (threatening food security) and the introduction of invasive species.

Climate change can also be at the origin of territorial and maritime disputes. For instance, Russia has claimed sovereignty over the 'Yaya Island', a maritime feature located in the Laptev Sea that was previously covered by frozen sea water. This feature can potentially generate new maritime zones and, thus, can potentially expand the areas of national jurisdiction of the coastal State concerned.

For more on this, read…

Molenaar E J, A G Oude Elferink, and D R Rothwell (eds), *The Law of the Sea and the Polar Regions - Interactions between Global and Regional Regimes* (Martinus Nijhoff Publishers Publications on Ocean Development 2013)

Byers M, 'Arctic Region' in A Peters and R Wolfrum (eds), *Max Planck Encyclopedia of Public International Law* (Oxford University Press 2008)

3.3

Climate Change Law and the Arctic

Kamrul Hossain

The impact of climate change on the Arctic has been drastic, primarily due to the increase in temperature, which in the Arctic has been much faster than the global average. The consequences include intensifying glacier melting, thawing permafrost, the loss of seasonal snow cover and sea ice, and increased risk of wildfires.

Latest estimates note that by 2030 the Arctic Ocean could become ice-free during the summer months (meaning an ice coverage below one million square kilometers). The loss of sea ice will have profound implications for Arctic ecosystems, wildlife, and Indigenous communities that rely on ice for transportation and hunting.

Ice loss in the Arctic will bring impacts beyond the region. An example often brought to the fore is the rise in sea levels. As ice on land, such as Greenland's ice sheet, melts and flows into the ocean, it adds to the overall volume of seawater, posing risks to coastal communities and low-lying areas worldwide. Yet this is only one of many challenges that could be cited. The Arctic's role in the global climate system, its influence on ocean circulation and its impacts on mid-latitude weather mean that the Arctic and climate change are very much intertwined. Hence, addressing climate change and its impacts in the Arctic requires a concerted global effort to reduce greenhouse gas emissions and mitigate further warming, for example, by promoting energy from renewable sources.

The primary aim of climate change law is to limit the global rise in temperatures and support adaptation measures for vulnerable regions such as the Arctic. While specific regional agreements and national laws are necessary, as a global phenomenon climate change requires coordinated action worldwide. Hence, to understand how climate change law affects the Arctic, we must understand the global climate law framework.

The primary international legal framework for climate change law is the 1992 United Nations Framework Convention on Climate Change (UNFCCC) and

subsequent legal instruments. Given its framework nature, the UNFCCC establishes the basic principles that recognize responsibility for international cooperation through global climate action, such as the commitment to stabilize greenhouse gas concentrations and promote sustainable development. Subsequent agreements under the UNFCCC provide more specific steps, for example, the emission reduction targets set under the 1997 Kyoto Protocol.

However, additional agreements must be ratified by each UNFCCC party for the agreements to become binding in that particular country, something that has not always happened (for instance, the US was not a party to the Kyoto Protocol), and which partly explains the Protocol's limited success. Moreover, some of the implementation tools under the Protocol, such as the *flexibility mechanisms*, were found to contain loopholes.

In 2015, at the UNFCCC's 21st Conference of the Parties – known as the Paris Climate Conference – the Paris Agreement was adopted, effectively superseding the Kyoto Protocol. Today, the Paris Agreement is the key instrument in international climate governance. It aims to limit global warming to "well below 2 degrees Celsius above pre-industrial levels" and to pursue efforts "to limit the temperature increase to 1.5 degrees Celsius." To achieve these goals, the Agreement sets forth several key provisions:

- Nationally Determined Contributions (NDCs): Efforts undertaken by each country to design its own national climate action plans to reduce national emissions and adapt to the impacts of climate change.

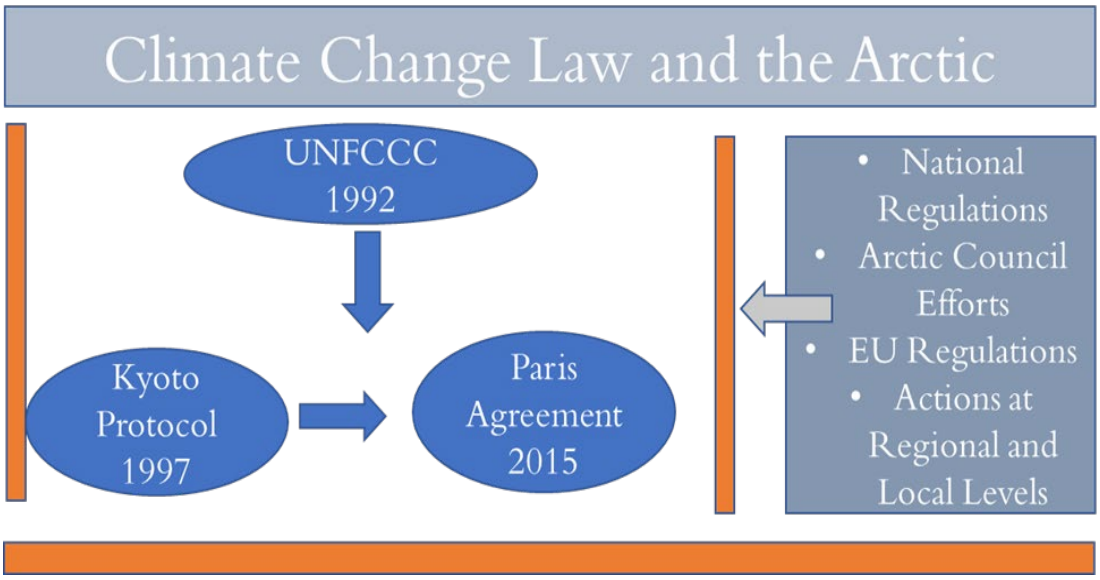
- Global Stocktake: The Agreement establishes a process for reviewing and assessing collective progress toward achieving the Agreement's goals. The global stocktake occurs every five years and encourages countries to continuously enhance their efforts.

- Loss and Damage: The Agreement recognizes loss and damage associated with the adverse effects of climate change, including extreme events and slow-onset weather events, and recognizes the need to earmark the funds required to adapt to the climate crisis.

- Climate Finance: Developed countries are encouraged to provide financing to developing countries to mitigate climate change, strengthen resilience, and enhance their capacity to adapt to climate impacts.

- Transparency and Accountability: To ensure transparency and accountability, the Agreement emphasizes that countries should regularly report on their emissions, actions taken to reduce emissions, as well as all the support provided or received.

As of today, 198 countries are parties to the Paris Agreement. These include all the Arctic states as well as the Faroe Islands; Greenland is in the process of joining. In the Arctic, the actions to meet the goals set under international climate change law are achieved by several supplementary regulatory and governance mechanisms. While national regulatory tools include measures for climate actions to meet the goals, there are also Arctic-wide initiatives through various institutional mechanisms, such as the Arctic Council, which promote cooperation and coordination among the eight states in the fight against climate change.



One of the early initiatives by the Arctic Council was the Arctic Climate Impact Assessment (ACIA) Report, a landmark scientific document based on a comprehensive analysis of the Arctic climate system, including changes in temperature, sea ice extent, snow cover, and permafrost. The ACIA also

contemplated the potential consequences of climate change for ecosystems, wildlife, Indigenous communities, and socio-economic aspects of the region.

In addition, and to further climate action in and for the Arctic, the Arctic Council cooperates with the UNFCCC, as well as its subsidiary bodies and organizations, such as the Intergovernmental Panel on Climate Change (IPCC). Through its various working groups, the Arctic Council offers scientific research, assessments, monitoring, and policy developments, which combine to deepen our understanding of the complex interactions between climate change and the Arctic environment.

Actions at regional and local levels supplement the Arctic Council's initiatives. Arctic cities and regions adopt climate action initiatives, often more ambitious than national or international commitments. These include measures such as renewable energy mandates, building codes promoting energy efficiency, and public transportation improvements, all being steps designed to meet the goals of international climate change. In sum, climate change is a complex global issue and the related legal framework is continuously evolving to adapt to the challenges it poses in the Arctic and beyond.

For more on this, read…

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3.4

Regulating Arctic Biodiversity

Kamrul Hossain

The Arctic contains vast ice sheets, glaciers, tundra landscapes, and marine ecosystems – features that support its rich biodiversity. It is home to more than 21,000 known species adapted to cold temperatures. The diverse range of species includes magnificent mega-fauna, such as the region's iconic polar bears, walruses, seals, and whales. The ecosystem also hosts a wide range of bird species and terrestrial animals, such as Arctic foxes. In addition, it supports a variety of fish, plants, fungi, and microbe species. This extensive biodiversity provides essential ecosystem services and a wealth of material as well as non-material benefits to the Arctic environment and its people.

Arctic biodiversity is regulated and governed through various international and regional regulatory and institutional arrangements as well as national regulatory and policy processes. What follows offers an overview of the most relevant international and regional perspectives.

From an international law perspective, the primary legal instrument for biodiversity management is the Convention on Biological Diversity (CBD), adopted in 1992. The CBD aims to promote conservation of biodiversity and sustainable use of its components. The Convention also underscores the norm of fair and equitable sharing of the benefits arising from the utilization of genetic resources, which is codified under the Nagoya Protocol, a supplementary protocol to the CBD adopted in 2010 and providing a legal framework for this purpose. The Protocol focuses on access to genetic resources and the transfer of associated traditional knowledge, typically held by local and Indigenous communities. The objectives of the CBD reflect the implementation of principles such as the precautionary principle and the principle of common but differentiated responsibilities.

A number of other international legal instruments covering the Arctic merit mention. One is the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which regulates the international trade of endangered wild animals and plants, protecting them from extinction. The Ramsar Convention on Wetlands focuses on the conservation and sustainable

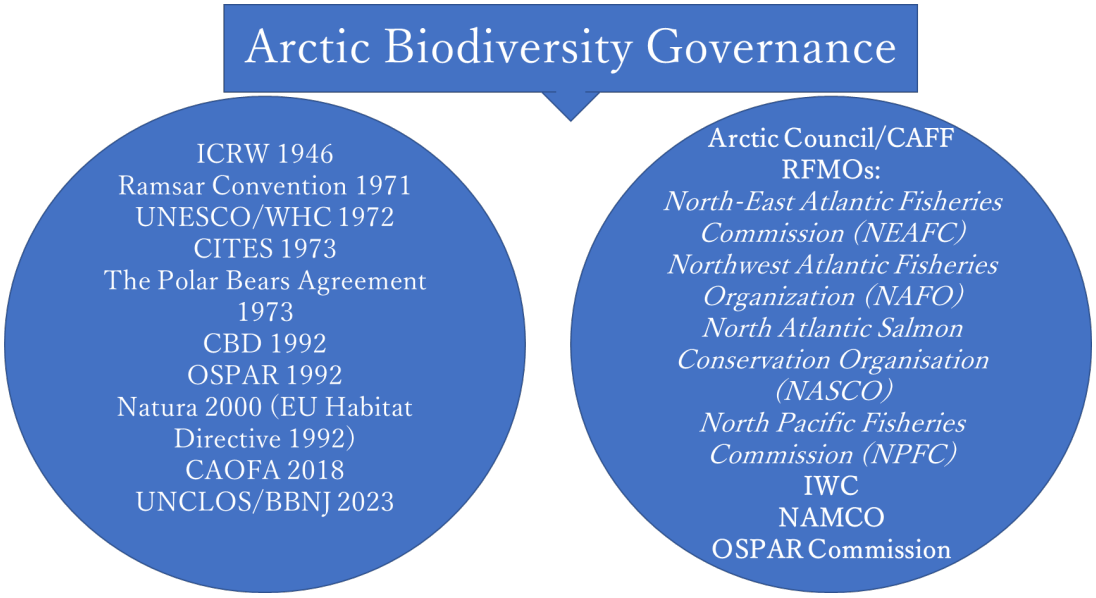
use of wetlands, which are essential for biodiversity as they support a wide range of plant and animal species. The UNESCO World Heritage Convention of 1972 aims to identify and protect sites of outstanding universal value, including natural sites of exceptional importance for biodiversity conservation, such as national parks and biosphere reserves. On June 19, 2023, under the United Nations Convention on the Law of the Sea (UNCLOS), the Biodiversity Beyond National Jurisdiction (BBNJ) treaty was adopted, addressing issues such as protection of vulnerable marine ecosystems, impact assessments of human activities, access to and sharing of marine genetic resources, transfer of marine technology, creation of marine protected areas beyond national jurisdiction, and use of "area-based management tools" to manage ocean resources more sustainably.

The more Arctic-specific conservation regulations include the 1973 Agreement on the Conservation of Polar Bears and the 2018 Central Arctic Ocean Fisheries Agreement (CAOFA). The former was adopted by all five Arctic coastal states, the aim being to prohibit random, unregulated sport hunting of polar bears and outlaw hunting of polar bears from aircraft and icebreakers. The latter agreement was concluded by five Arctic coastal states, four other nations (China, Iceland, Japan and South Korea) and the EU – all actors with fishing interests in the region. The CAOFA is a proactive regulatory arrangement to impose a moratorium on commercial fishing because of the lack of scientific evidence enabling estimation of the resource, ensuring that any future commercial fisheries will be based on scientific understandings and sustainable management principles; here it can be seen as implementing the precautionary principle. Also, of importance for the Arctic are the 1946 International Convention for the Regulation of Whaling (ICRW), which aims to conserve whale species, and the 1992 Protection of the Marine Environment of the North-East Atlantic (OSPAR), which identified and designated certain areas in the North-East Atlantic, including parts of the Arctic, as ecologically or biologically sensitive areas requiring enhanced protection measures.

For the European Arctic countries – either as members of the EU (Denmark, Finland and Sweden) or participants through the European Economic Area (EEA) agreement (Iceland and Norway) – Natura 2000 provides a nature conservation framework. It is a network comprising protected areas established by the EU to safeguard Europe's most valuable and threatened

species and habitats. These comprise Special Areas of Conservation (SACs), designated under the Habitats Directive, and Special Protection Areas (SPAs), established under the Birds Directive. The European Arctic countries are responsible for designating and managing these protected areas within their national territories.

The international and regional mechanisms described above provide a framework enabling the Arctic countries to collaborate and develop strategies for conserving biodiversity and its sustainable use. The framework offers normative guidance to establish national biodiversity strategies and action plans, strengthen protected areas, promote sustainable practices, and support scientific research and capacity-building efforts. Since scientific knowledge on Arctic biodiversity is constantly developing, regulations and governance evolve in step with new challenges and scientific discoveries. Cooperation among the Arctic states is supplemented by various institutional efforts that address the biodiversity crisis and seek to ensure the long-term survival of species and ecosystems.



As regards institutional arrangements, the Arctic Council plays a crucial role, particularly through its Working Group on the Conservation of Arctic Flora and Fauna (CAFF). CAFF promotes the conservation of biodiversity and sustainable use of biodiversity in the Arctic through activities such as conducting scientific assessments, managing monitoring programs, and

developing conservation strategies. As part of these efforts, CAFF engages the Arctic's Indigenous communities and incorporates their traditional knowledge in conservation work. In another of its responsibilities, the Working Group coordinates the Circumpolar Biodiversity Monitoring Program (CBMP), which aims to improve the monitoring of and reporting on Arctic biodiversity. The CBMP develops standardized monitoring protocols and facilitates data sharing among Arctic countries to better track changes in Arctic ecosystems over time. By promoting ecosystem-based approaches to conservation and advocating for sustainable development practices in the Arctic, CAFF also contributes to climate change adaptation efforts.

In addition to the Arctic Council, several other institutions play a crucial role in the conservation of biodiversity in the Arctic. These include a number of regional fisheries management organizations (RFMOs), the International Whaling Commission (IWC), the North Atlantic Marine Mammal Commission (NAMMCO) and the OSPAR Commission, all instrumental actors in the sustainable and responsible use of marine living resources. For example, the IWC, which operates under the ICRW of 1946, has imposed a moratorium on commercial whaling and set limits on scientific and subsistence whaling. The coverage of these institutional set-ups includes the Arctic Ocean.

For more on this, read…

Barry T and Others, 'How Does the Arctic Council Support Conservation of Arctic Biodiversity?' (2020) 12(12) Sustainability https://doi.org/10.3390/su12125042

3.5

Human Rights Law and the Arctic Indigenous Peoples

Kamrul Hossain

At its evolution in the late 1940s, the international human rights legal framework has not referred to Indigenous peoples. Given its nature that form of set of individual rights, international human rights law has traditionally been addressed individuals, but not communities or groups, as the right holders. However, some elements of individual rights are not meaningfully exercised unless a community or group components are attached to them – most importantly the exercise of a right to culture or religion. The mainstream human rights law recognized the "community" connection in the enjoyment of those rights. Such rights are generally applicable to social groups that form minorities in countries in which they live. Indigenous peoples form ethnic minorities in most countries in which they live. Therefore, despite a lack of reference to Indigenous peoples in the mainstream international human rights law, individuals belonging to Indigenous group, as with others in a given society, fully enjoy human rights, and some of them in a collective setting. Hence, any actions by states resulting in the violation of rights applicable to Indigenous peoples are unlawful. This section briefly introduces the international human rights legal instruments that apply to Indigenous peoples, particularly the Sámi Indigenous people.

The mainstream human rights law primarily includes the Universal Declaration of Human Rights (UDHR) of 1948, the International Covenant on Civil and Political Rights (ICCPR) of 1966, the International Covenant on Economic, Social and Cultural Rights (ICESCR) of 1966. The UDHR offered a comprehensive set of universally applicable human rights. While it is a non-legally binding document, most of the rights embodied in it eventually have been codified in the ICCPR and ICESCR. The latter two together have added three subsequent legal instruments – the optional protocols. Altogether, these instruments combined are called International bill of human rights. As stated above, none of these instruments explicitly referred to Indigenous peoples. Yet, some of the provisions in these documents provide strong grounds for Indigenous peoples' rights. The most cited provision is Article 27 of the ICCPR and Article 15 (1) (a) of the ICESCR. The former is about non-interference in the exercise of minority culture, where individuals, in community with other

members of the group enjoy the practice of culture, forming the core identity of the group. The latter is about ensuring individual's participation in the practice of culture. The proper implementation of the provisions is overseen by the treaty monitoring bodies created under both Covenants. For ICCPR it is called Human Rights Committee (HRC), and for the ICESCR, it is the Committee on Economic Social and Cultural Rights (Committee on ESCR. They enjoy the authority to offer guidance in the form of so-called "General Comment", and "Concluding Observation" responding to country reports submitted by the parties. The General Comments provide interpretation of specific articles to guide states while implementing them.

Both Committees interpreted the aforementioned articles in favour of the rights of Indigenous peoples, particularly in regard to their right to land and land-based activities. For example, in 1994 the HRC adopted General Comment 23, suggesting that a right to culture with particular reference to Indigenous peoples means exercising their traditional and nature-based livelihood activities, such as hunting, fishing, gathering, trapping etc., and skills they developed traditionally to perform those activities. Similar interpretation is found also in the General Comment 21 (2009) on article 15 (1) (a) by the Committee on ESCR. The Committee highlighted the collective component of Indigenous rights in connection to their lands and resources as part of the practice of cultural. What particularly important is that these treaty monitoring bodies explicitly indicated that the provisions of these rights are not considered as negative rights with states abstaining from interference, they rather are positive rights requiring affirmative actions from the states to meaningfully promote them. Afterall, the essence of human rights is about protection from the violation of rights, and adoption of subsequent measures for their promotion.

Other human rights instruments, as they relate to Indigenous peoples, speak the same language. For example, the Committee on the Elimination of all form of Racial Discrimination (Committee on ERD) under the Convention on the elimination of all form of Racial Discrimination (CERD) in its General Comment 23 specifically addressed Indigenous peoples. The Committee consistently affirmed that discrimination against Indigenous peoples falls under the scope of the Convention. Hence, by virtue of the General Comment, the Committee required the state parties to provide information (while

submitting the country report under article 9 of the Convention) on the situation of Indigenous peoples in the respective countries. The Committee further highlighted that states must take all appropriate measures to eliminate discrimination against Indigenous peoples.

The essence of Indigenous peoples' rights in the mainstream human rights instruments, as stated above, are explicitly complemented by further developments Indigenous-specific human rights legal framework. For example, the International Labour Organization (ILO) Convention 169 (ILO 169) of 1989 is the only legally binding international treaty applicable to Indigenous and Tribal peoples in independent countries. The treaty offered substantive rights of Indigenous peoples concerning their ancestral lands that they own or otherwise occupy for their traditionally held livelihood practices. Their rights to participation and consultation in the management of the lands and resources offer an essential milestone, which latter has been strengthened through the adoption of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). The UNDRIP emphasised on the norm of Free, Prior and Informed Consent (FPIC) in several of its articles. The FPIC not only ensure Indigenous participation in the process of decision makings on issues that of their concerns, but it also offers a veto right for them. Although the UNDRIP is a non-legally binding document, the subsequent developments suggest that the FPIC has become a legal standard employed by judicial mechanisms. For example, the HRC in 2009 in Angela Poma Poma Vs Peru case, and the Inter-American Court of human rights in Saramaka people vs. Suriname case explicitly endorsed the FPIC as a legal standard to determine the conclusions.

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CHAPTER 4: EXAMPLES OF THE ARCTIC-SPECIFIC REGULATORY (AND SELF-REGULATORY) MECHANISMS

4.1

The Arctic Council's Soft-law Processes

Hema Nadarajah

> *[T]hus the belief in an ice-free north-east and north-west passage to the wealth of Cathay or of India, first propounded towards the close of the 15th century, cropped up again and again, only to be again and again refuted.*
> *- Fridtof Nansen, 1897*

This belief that Fridtjof Nansen writes of in 1897 is one that is fast becoming a reality in the face of increasingly warming temperatures in the Arctic. Alongside these changes, interests from non-Arctic states and non-state actors are also mounting as the region's resources and trade routes are becoming more commercially accessible. In a large part, these biophysical changes have called for a science-based decision-making approach to the region's governance, whether on issues pertaining to jurisdictional claims or on the management of fisheries resources. Soft law is often assumed to be characteristic of areas where decisions are based on the best available and often uncertain scientific and technological knowledge, which would be that of the Arctic.

Soft law refers to written legal instruments, other than hard treaties, that exist in either binding or non-binding forms. Non-binding soft law can exist in various forms, such as declarations, recommendations, resolutions, and official ministerial statements. Given the diversity in these instruments, one could usefully see international law as agreements along a continuum measured by a degree of "softness" or "hardness" at either end of the spectrum. A broad definition of soft law is adopted here, one that includes some binding written legal instruments as well as non-binding ones. The former, henceforth referred to as 'soft treaty', is defined *as a binding instrument containing some combination of permissive language, ambiguity, and redundancy that leaves it devoid of mandatory, clear, new obligations.* The latter will be referred to as "non-binding soft law". If placed along such a continuum, such instruments would fall somewhere between two ends that are either purely legal or purely

political, with soft treaties falling between non-binding soft law and binding hard treaties:

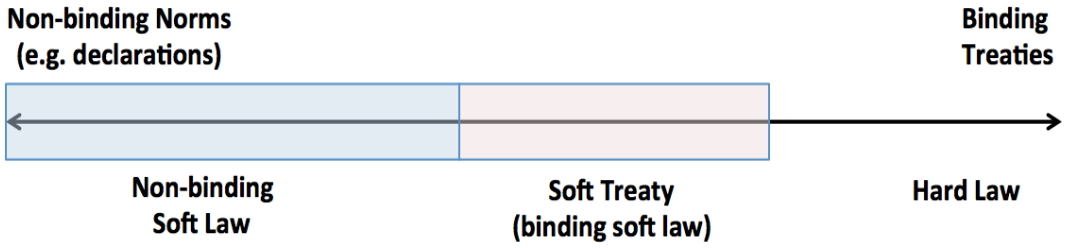

Figure 1: Spectrum of written international law with the shaded segments

Some hard treaties, such as the UNCLOS, the Polar Code, and the Montreal Protocol, govern the region but are not specific to it. Other instruments are specific to the region, such as the Polar Bear Treaty, the Central Arctic Ocean Fisheries Agreement, and the Russia-Norway Boundary Treaty. The hard treaties such as the UNCLOS and the UN Framework Convention on Climate Change (UNFCCC) are global in nature, while the Polar Code is specific to *both* the Arctic and Antarctic. Instruments that are specific to the Arctic and are binding, tend to take on characteristics of a soft treaty, such as those negotiated within the auspices of the Arctic Council or among the Arctic Five.

Having initiated the negotiation of three soft treaties and adopted numerous other non-binding soft law instruments, the Arctic Council had established itself as an institution for soft governance in the region. The Arctic Council itself was created on the foundation of a non-binding soft law instrument – the 1996 Ottawa Declaration. Soft law has since come to characterize the Arctic Council member states' approach to governance in the region. Unlike the Antarctic Treaty, a hard law instrument, there is no equivalent in the Arctic. This could possibly be due to several reasons: (1) the UNCLOS, a hard treaty, serves the same role since the Arctic is centred on an ocean, (2) UNCLOS supports the Arctic coastal states' (Arctic Five) desire to "maintain sovereignty and sovereign rights" in the region. It can be observed that, when the Arctic states wish to conclude a hard treaty, such as the Central Arctic Ocean Fisheries Agreement, they do so outside the Arctic Council, and (3) Antarctic remains uninhabited with the exception of scientific communities. In the Arctic, however, the landmass falls under the sovereignty of the Arctic-8.

Although the soft law approach facilitates norm formation, in this case, the structure and form of the Arctic Council may have been just as important. The Arctic Council includes Russia and six NATO states. Prior to the 2022 Ukraine crisis, a soft law approach had long enabled it to shape decisions despite the often-tense relationship between NATO and Russia. While the Arctic is a region within which tension has been low, power dynamics outside of the region risk spilling over into the Arctic as countries increasingly recognize the region as a key geopolitical theatre. These dynamics among regional actors are compounded by increasing interest in the region by non-Arctic states. Soft law may be a way to bridge global and regional policies against a backdrop of rapidly changing environment and regional tensions.

Both the Agreement on Enhancing International Scientific Cooperation and the Central Arctic Ocean Fisheries Agreement are based on the need for science-based cooperation. While the latter instrument was largely precautionary, the former was based on existing practices of scientific research accessibility that always depend on the ongoing consent of sovereign states. The Arctic may be a region that is built on the norm of cooperation, but this does not mean that the soft treaty/soft law regime governing the region is a form of supranational governance. In reality, it remains to be seen if the Agreement can indeed facilitate researchers' accessibility to the Arctic; i.e. whether the Arctic states will really allow improved access to their territories and maritime zones.

Figure 2 below graphically illustrates the non-binding soft law and soft treaty instruments, relative to hard law instruments in the Arctic since 1920, the year the Svalbard treaty was concluded, to 2019, when the most recent Arctic Council Joint Ministerial Statement was adopted. The graph demonstrates that the Arctic has been and is increasingly being governed by softer forms of legalization.

We are observing an increase in the frequency of situations favoring soft treaties. Growing numbers of state and non-state actors can make it more difficult to negotiate hard treaties. Rapid political, technological, and environmental change can make it impractical to use hard treaties that are, to some degree, frozen in time. Soft treaties and other forms of soft law are more flexible and adaptable. They also allow for greater and more diverse

participation. And they might avoid some of the obstacles that can prevent the adoption of hard law, such as ongoing tension between Western states and Russia, while leaving open and even facilitating the possibility that their commitments might later become part of hard treaties or customary international law.

For more on this, read…

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4.2

An Introduction to the Central Arctic Ocean Fisheries Agreement

Roderick Harte

Climate change is having a dramatic impact on the Arctic and is expected to lead to further profound changes. These include a severe reduction in sea-ice cover as well as shifts in the distribution of fish stocks towards the region. While many uncertainties remain, such changes could bring new fishing opportunities in the Arctic Ocean. Concerns about the management of potential future commercial fisheries have resulted in the negotiation of the Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean (also known as the 'Central Arctic Ocean Fisheries Agreement' or 'CAOFA'). Following over a decade of preparations, this Agreement was signed in 2018 by Canada, the People's Republic of China, the Kingdom of Denmark (in respect of the Faroe Islands and Greenland), Iceland, Japan, the Republic of Korea, Norway, the Russian Federation, the United States of America, and the European Union, and entered into force in June 2021. This article provides an introduction to this new Arctic fisheries Agreement, including its content and implementation.

The Agreement in a nutshell

Prior to the CAOFA's entry into force, no specific regime existed to regulate fisheries in the high seas' portion of the Central Arctic Ocean, contrary to many other parts of the world where such regimes do exist. There was in fact no real need for such a regime until recently because the extensive sea-ice coverage made commercial fishing impossible. While commercial fishing is currently not taking place in the area, nor is it expected to become viable in the near future, this could change due to the impact of climate change. The Parties to the CAOFA considered it important to prepare for such a scenario, also considering the fragile nature of the Arctic's marine ecosystems. CAOFA accordingly establishes a fisheries management regime for the region for the short to medium term, thereby filling a gap in the regulation of international fisheries.

The CAOFA's aim is to protect the Arctic high seas from unregulated commercial fishing before such fishing has commenced, while also ensuring that additional scientific knowledge is obtained to take informed decisions in

the future about potential fishing. The agreement accordingly applies a strong precautionary approach to fisheries management. This is driven by the fact that relatively little scientific knowledge currently exists about the ecosystems that exist underneath the ice in the Arctic high seas, let alone whether any fish stocks exist that could be fished sustainably. A greater understanding of the marine environment is therefore needed before any informed decisions about future fishing can be made.

To achieve this objective, CAOFA has introduced a ban on unregulated commercial fishing for its entire duration. In practice, this amounts to a moratorium on commercial fishing until 2037, which the Parties can extend by five years at a time. While in force, the Agreement requires the Parties to increase and share their knowledge about the living marine resources and ecosystems of the Central Arctic Ocean. This will primarily be done through a Joint Program of Scientific Research and Monitoring ('Joint Program'), which must also take into account indigenous and local knowledge. The results of the Parties' scientific research and cooperation should ultimately enable the Parties to determine whether or not any fish stocks exist in the area that could be fished sustainably. The Parties may then decide to begin talks on the establishment of a specific organisation to manage fishing in the Arctic high seas, including a new regional fisheries management organisation (RFMO) or other arrangement.

Implementing the Agreement

The CAOFA requires the Parties to meet several deadlines to ensure that the necessary structures are put in place to meet the Agreement's overall objective.

A first set of deadlines relates to scientific cooperation and must be met within two years of entry into force, notably by mid-2023. The Parties are specifically required to establish the Joint Program, including the adoption of a data sharing protocol, and they must adopt the terms of reference for the functioning of the joint scientific meetings. One year later, by mid-2024, the Parties must have established conservation and management measures for exploratory fishing. Such fishing enables the collection of further scientific data that will contribute to determining whether any future commercial fisheries can be conducted sustainably. However, exploratory fishing can also

negatively impact the ecosystems and fish stocks that the Agreement aims to protect and therefore needs to be carefully regulated by the Parties.

Apart from the need to meet these deadlines in the Agreement itself, the Parties have also had to make the two main CAOFA bodies operational, namely the Conference of the Parties and the joint scientific meetings. Both bodies are key to implementing the new regime of the CAOFA and require a range of decisions to be up and running, including on rules of procedure and the election of Chairpersons.

Outlook

The CAOFA establishes an important new regime for international fisheries in the Arctic. Whether it will be able to meet its objective depends on the Parties' readiness to meet their obligations through international cooperation. It is tempting to believe that the Agreement's implementation will be relatively uncontroversial in the short to medium term, since the primary focus will be on scientific cooperation while any actual commercial fishing in the Central Arctic Ocean remains unfeasible. The real test for the CAOFA will in that regard come only once the Parties find themselves in a position to decide whether or not the scientific data that they have collected under the Joint Program points to the existence of fish stocks that can be fished sustainably, and whether this would require the establishment of a RFMO. Overall, the state of cooperation between the ten Parties under the CAOFA might very well turn out to be a good indicator of the state of international cooperation in the Arctic as a whole. This alone warrants close attention to the Agreement's performance in the coming years.

For more on this, read…

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4.3

The Polar Code and the Arctic

Ilker K. Basaran

Navigation in Arctic waters can be difficult and hazardous due to a several reasons, including the presence of sea ice, extreme cold, remoteness, poor visibility, darkness, lack of infrastructure, and lack of charts. Additionally, shipping poses numerous environmental risks to the marine environment. These would include oily wastes during normal operations, a spill of noxious (poisonous/chemical) substances, sewage and grey water release, a wide range of garbage discharge from onboard operations, air pollution, ballast water discharge, noise from operations, and ship strike to marine mammals. These environmental risks posed by shipping may be exacerbated in Arctic waters due to the difficulty of monitoring pollution incidents or attending pollution sites Therefore, specific regulations for Arctic shipping were necessary.

Maritime shipping regulations set forth by the International Maritime Organization (IMO), the only UN agency with the power to establish international rules and standards for the shipping industry, were designed for general marine transportation taking place on the ice-free open waters. Therefore, they were not addressing problems associated with polar shipping. For example, IMO's shipping regulations applicable to the Arctic Ocean simply consisted of several non-mandatory provisions and guidelines.

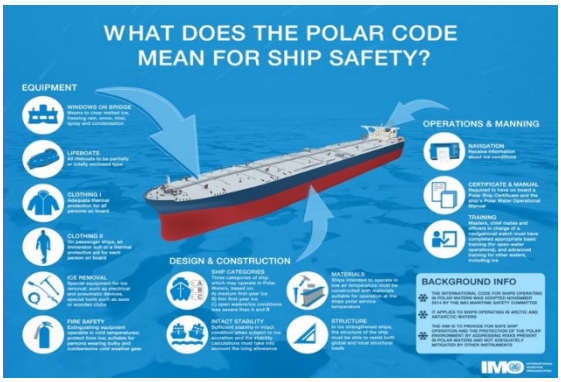
The creation of polar-specific navigational rules did not happen overnight. The effort for such a legal instrument extends back to the early 1990s, and it is the result of initial efforts mutually put forth by several nations, including Germany and Canada because they were the initial maritime States raised the issue for IMO to consider specific regulations for the region.

IMO first developed a set of voluntary guidelines titled "IMO Guidelines for Ships Operating in Arctic Ice-Covered Waters" and approved it in 2002. But being a voluntary instrument, this solution did not produce the desired outcome. Therefore, in 2017, IMO created its first mandatory shipping rules for the "Arctic waters" which are defined as waters captured by the meridian north of 60 degrees, with adjustments off Greenland, Iceland, and the Barents Sea to reflect polar ice limits. And this legal instrument is called the

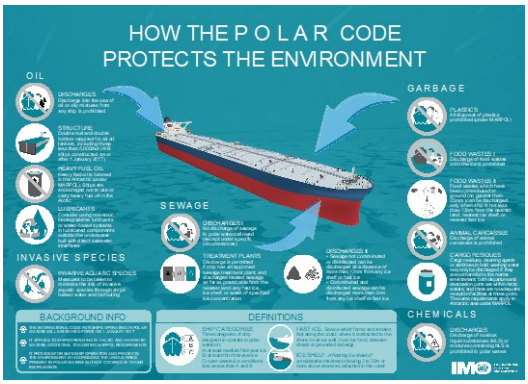
"International Code for Ships Operating in Polar Waters" (Polar Code). Polar Code is also considered one of the first proactive legal instruments created by the IMO as the UN agency has traditionally been reactive in its approach to regulating maritime shipping assome of the major IMO legal instruments are created as a reaction to major maritime incidents. For example, the International Convention for the Safety of Life at Sea (SOLAS) is created as a reaction to the Titanic.

IMO was only able to accomplish this by consulting for instance with the Arctic Council, which through its reports and recommendations, such as the Arctic Marine Shipping Assessment (AMSA) Report, helped shape the Polar Code.

The Polar Code is intended to cover the full range of shipping-related matters relevant to navigation in polar waters: ship design, construction, and equipment; operational and training concerns; search and rescue; and, equally important, the protection of the unique environment and eco-systems of the polar regions. It contains safety provisions in the mandatory Part I-A and non-mandatory Part I-B, and pollution prevention provisions in the mandatory Part II-A and non-mandatory Part II-B. Together, the parts set out new international minimum standards for polar shipping. The approach to regulation is risk and goal-based, particularly with respect to safety standards, but also prescriptive with regard to pollution prevention standards.



Polar Code Safety Measures



Polar Code Environmental Protection Measures

The Polar Code is not a self-standing convention, but a set of amendments to three existing IMO Conventions regulating safety, marine protection, and crew competence aspects of international marine transportation. These

Conventions are the SOLAS, the International Convention for the Prevention of Pollution from Ships (MARPOL), and the International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers (STCW).

The Polar Code covers both Arctic and Antarctic waters, and its application would include passenger and cargo ships over 500 gross tonnes engaging on international voyages, which for the time being, excludes non-SOLAS vessels, including fishing vessels and pleasure craft.

Some of the key provisions of the Code would include the polar ship certificate (PSC), which attests that the ship complies with the Ship safety requirements, polar service temperature (PST) standard, a risk-based navigation system (known as POLARIS), variable application of rules to ship categories (A, B, C) based on operations under different ice concentrations, and a requirement for onboard polar water operating manual (PWOM), whose goal is to provide the owner, operator, master and crew with sufficient information regarding the ship's operational capabilities and limitations in order to support their decision-making process.

Polar Code provides supplementary rules to general IMO maritime rules on pollution prevention from oil, noxious liquid substances (NLS) carried in bulk, sewage, and garbage and additional guidance for oil, NLS carried in bulk, garbage, ballast waters, and biofouling.

Controversial Heavy Fuel Oil (HFO) use or carriage is not banned by the Code, but non-mandatory guidelines include a provision that refers to Regulation IX/43 of MARPOL Annex I.62 which bans the carriage of HFO in bulk as cargo, ballast, or for use as fuel.

Overall, the Polar Code is a major achievement for polar shipping as it mitigates the risk involved in polar operations and helps protect the marine environment. However, it is also important to realize that the Polar Code is a first-generation instrument that represents the bare minimum that parties managed to come to a mutual understanding and consensus. Its provisions will be reviewed and updated by IMO from time to time as lessons are learned. Additionally, under the concept of 'generally accepted international rules and standards (GAIRAS), coastal States are also free to have more stringent rules

in their jurisdiction. Lastly, exceptional power provided to coastal States via UNCLOS Article 234 is also a tool to use in case further regulatory measurement is needed.

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4.4

Marine Mamal Conservation Governance in the Arctic

Nikolas Sellheim

In the Arctic, marine mammals have been hunted for centuries, if not millennia. In Alaska, Arctic Canada, Greenland, Iceland, Norway and Russia, marine mammals have contributed to the subsistence of the people residing in the frosty realms of the North. for management purposes.

Marine mammal hunts, i.e. the hunts for cetaceans, seals, polar bears, or sea otters, have been regulated on a regional and local level. The first such regulatory agreement was the Jan Mayen Seal Fishery Treaty, which was concluded between Germany, Britain, the Netherlands, Norway and Russia in 1875. This treaty was an alignment of hunting activities between the signatories at Jan Mayen in the North Atlantic). In order to avoid overexploitation of the seal herds, hunting was to take place at specific times and at specific locales. As such, it presents the first conservation agreements for seals in the world.

In the Bering Sea, the US, Great Britain (for its colony Canada), Japan and Russia were actively hunting fur seals at the Pribilof Islands. Intense sealing operations caused drastic declines in seal herds, which led to the conclusion of an Arbitration Treaty in 1893 that established a 60 mile no-take zone for the US and Britain, Japan and Russia engaged in pelagic sealing, again drastically reducing seal herds. Consequently, in 1911 the Bering Sea Fur Seal Regime was concluded, which banned pelagic sealing and prohibited the trade in seal products stemming from pelagic hunts. This regime lasted until 1984, when it collapsed.

In 1983, the European Communities (now European Union, EU) put in place a ban on the import of products stemming from seal pups stemming from commercial hunts. 26 years later, this 'Seal Pups Directive' was expanded to encompass all trade in seal products from these hunts. Even though both regimes contain(ed) exemptions for indigenous subsistence hunts, it triggered cases both before European Court of Justice (ECJ) by Inuit and non-Inuit commercial sealers, and before the World Trade Organization (WTO).

Indigenous subsistence sealing nowadays takes place in Alaska, Canada (Nunavut), Greenland and Russia (Chukotka). Commercially, seals are hunted in Atlantic Canada and Norway while seals are hunted for fisheries management purposes in Iceland, Sweden and Finland. All of these hunts are subject to national legislation since no international body exists that regulates sealing.

The North Atlantic Marine Mammal Commission (NAMMCO), established in 1992 by Norway, Iceland, the Faroe Islands and Greenland, provides government advice on all aspects related to the conservation and sustainable use of marine mammals. . This is fundamentally different to the International Whaling Commission (IWC), which directly regulates commercial whaling activities worldwide. The 88-member IWC has become a controversial international organisation due to its adversarial internal positions since the imposition of a 'moratorium' on commercial whaling in 1982. Due to the moratorium, Canada left the IWC in 1982, establishing its own regulatory regime for whaling. Also, Iceland, an active commercial whaling nation, left the Commission shortly after the establishment of NAMMCO, but rejoined in 2002, yet with a reservation towards the moratorium. Norway and the Soviet Union (now Russian Federation) formally objected to the moratorium and are therefore not bound to it. Japan, one of the most outspoken advocates of commercial whaling, left the IWC in 2019 after years of controversy.

Although the 'moratorium' is in place, whaling as such is not illegal. Aboriginal Subsistence Whaling (ASW) takes place in Alaska, Greenland, Chukotka and Bequia (St Vincent and the Grenadines). Also scientific whaling is possible, but apart from the UK (very briefly in the 1960s), Iceland (shortly after the adoption of the moratorium) and Japan (for several decades in the North Pacific and the Antarctic), this provision has not been made use of.

In the Arctic, whaling is still an actively pursued activity. Inuit whaling takes place in Alaska, Nunavut and Greenland whereas the Chukchi in easternmost Russia hunt whales for subsistence purposes, subject to national legislation. Commercial whaling takes place in Iceland and Norway. Annual quotas are set by the respective fisheries ministries.

In the Faroe Islands, active drive hunts for small cetaceans, primarily pilot whales, are ongoing, regulated by Faroese legislation. Contrary to baleen and one toothed whale (sperm whale), all of which fall under the ambit of the IWC, no such global body exists for small cetaceans. In the Arctic, NAMMCO is the only multilateral body overseeing marine mammal conservation.,. In addition, cross-border regulation of beluga whaling occurs in Eastern Canada and Greenland as well as between northeastern Alaska and the Northwest Territories in Canada.

The decline of polar bears in its range states prompted the US, the Soviet Union, Norway, Canada and Denmark (Greenland) to adopt the Agreement for the Conservation of Polar Bears (ACPB) in 1973. The ACPB bans the commercial hunt for this species and the trade in their products. Subsistence hunts and trade in products from these hunts are permitted. In addition, regional soft-law agreements in the Southern Beaufort Sea, Kane Basin, Baffin Bay, Alaska and Chukotka have emerged to adapt the ACPB's provisions to local conditions.

The complex and patchy regulatory framework for marine mammals have raised calls for an international marine mammal commission., which appears rather unlikely. The only global regime relevant for marine mammals is the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Under CITES, all international trade in IWC-protected species is prohibited (Appendix I-listing) while trade regulations for all other cetaceans and polar bears are in place (Appendix II-listing).. In recent years, attempts have been made to restrict all international trade in polar bears. These attempts have failed so far.

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CHAPTER 5: ARCTIC TERRITORIAL DISPUTES AND THE LAW OF THE SEA

5.1
Introducing Territorial Disputes in the Arctic

Adnan Dal

There is currently no territorial dispute in the Arctic based on land claims, after Denmark and Canada reaching an agreement on the Hans Island in 2022. On the other hand, as the Arctic waters become more navigable as the glaciers melt, there are disagreements between the coastal states, especially regarding the applications made to the CLCS for the purpose of extending the continental shelf.

The Arctic region consists of an ocean surrounded by landmasses. The landmasses belong to Canada, Denmark (Greenland), Norway, Russia, USA (Alaska), and technically Iceland (Grimsey Island). Therefore, these five countries are delineated as coastal, rim or littoral states. Territorial or land claim disputes in the Arctic between these states have been rare, as the ocean encompasses most of the area. In contrast, disputes over maritime boundaries have been more intense, where states have overlapping claims over some areas. For this reason, international maritime regulations are generally applied in disputes arising in the Arctic. Here, the United Nations Convention on the Law of the Sea (UNCLOS) functions as the most important body applied by the Arctic states. Among the Arctic states, the US is not party to the UNCLOS although has historically agreed to follow the UNCLOS as customary law.

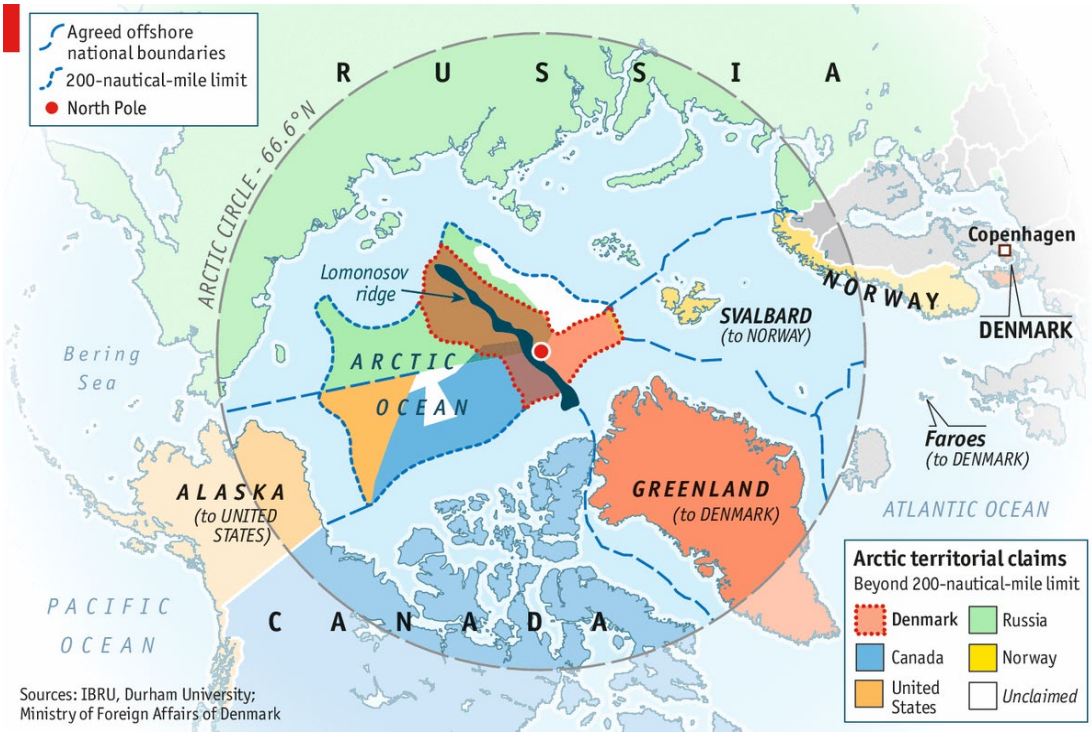
In the Arctic, in recent history, interstate disputes based on territorial claims have emerged over islands only. Some of these conflicting claims have been resolved through interstate agreements, as in the case of Svalbard. The uncertain status of Svalbard, which is an archipelago, was resolved with the Spitsbergen Treaty signed in 1920. Although the sovereignty of the island was given to Norway by the provisions of the relevant agreement stipulating the demilitarization of the island, the parties of the agreement were given equal rights in commercial activities on the island. Yet, ambiguity on waters around the island still remains among the parties of the Svalbard Treaty, which makes no mention of its provisions being applicable on the continental shelf or in waters outside the territorial waters of the archipelago.

Another island in dispute over maritime boundaries is the island of Jan Mayen, which is almost equidistant from Denmark, Norway and Iceland. Thanks to the efforts of the conciliation commission established in 1980, this problem was resolved between the two countries concerned, with the acceptance of a common maritime area between Norway and Iceland in 1981. Denmark, another side of the debate about the maritime areas on the island, also claimed rights on Jan Mayen. However, with the decision of the International Court of Justice (ICJ) in 1988, 64,600 km² of area between Norway and Denmark was divided.

The dispute over the Hans island -the last territorial dispute in the Arctic- is known to be the only territorial dispute in the Arctic until 2022. Hans Island - Tartupaluk in Inuit- is located between Canada's Ellesmere Island and Greenland and is equidistant from the two islands. Although there is no human settlement on the island, it has a strategic location and potential for hydrocarbon resources. Hence, both Denmark and Canada claimed full sovereignty over the island. Uncertainty about the island's sovereign status since 1973 has caused a low-key dispute between Canada and Denmark (the Whiskey wars, with spirits being exchanged). The dispute over the Hans Island began in 1973 after attempts to re-demarcate maritime boundaries. The status of the island was left to the next negotiations while the maritime areas were determined throughout the years. In particular, the visit to the island by Canadian military units in 1984 and the leaving of the Canadian flag and the symbolic bottle of Canadian whiskey on the island were met with a reaction by Denmark. Denmark, on the other hand, responded by visiting the island with the prime minister's visit and leaving the symbolic bottle of Danish drink, schnapps. The continuing uncertainty about the status of the island has led to the emergence of solution proposals between the two countries. As a matter of fact, in 2005, both countries decided to work in coordination to solve the problem, and agreed to establish a joint task force in 2018. Thanks to the work of this joint task force, the dispute on the island, which has been between Canada and Denmark for almost half a century, was resolved in 2022, with the two sides agreeing on certain issues. According to the relevant agreement, the island will be shared equally between both countries.

Owing to the impacts of climate change in the Arctic Ocean, large amounts of glacial meltdowns have also revealed problems related to the expansion of the continental shelf. Since the Arctic waters become more accessible, coastal states get more affiliated in order to draw advantages from these waters. It is possible to extend the continental shelf, which is at a distance of 200 nautical miles under normal conditions, by applying to the Commission on the Limits of the Continental Shelf (CLCS) within UNCLOS. Here, the possibility of states to apply to the commission has caused disputes between them. All coastal states -except the US- have applied to CLCS to expand their continental shelf. Since US is not a party to the UNCLOS, there is no issue of submitting its claim to the CLCS. For example, Denmark, Canada and Russia have applied to CLCS for Lomonosov and Gakkel Ridges, while Canada and Russia have applied for Alpha Rise regarding the extension of the continental shelf. Also, looking at the disputes over maritime areas, the US and Canada have overlapping claims over the Beaufort Sea, and Denmark and Canada over the Lincoln Sea. On the Barents Sea, there was nearly a half-century-long dispute between Norway and Russia; however, in 2010, the two countries reached an agreement on the equitable sharing of areas on this area.

Territorial Claims in the Arctic



One of the disputed issues regarding marine areas in the Arctic is over the Northern Sea Route and the Northwest Passage. There are counter arguments among certain Arctic states over the status of these new sea routes, which offer significant opportunities for commercial shipping between Asia, Europe and America. For example, the Northern Sea Route, is considered a national route by Russia, while the US insists that this route is an international strait. On the other hand, there is a dispute between Canada and the US over the Northwest Passage. According to Canada's claims, the NWP should be considered within the scope of internal waters, while according to the US, this should be considered as an international strait.

Disputes Among the Arctic States

Dispute	Parties	Status
Beaufort Sea	Canada-US	Unsolved
Lincoln Sea	Canada-Denmark	Unsolved
Hans Island	Canada-Denmark	Solved
Jan Mayen	Denmark-Iceland-Norway	Solved
Lomonosov and Gakkel Ridges	Canada-Denmark-Russia	Unsolved
Alpha Rise	Canada-Russia	Unsolved
Barents Sea	Norway-Russia	Solved
Northern Sea Route	Russia-US	Frozen
Northwest Passage	Canada-US	Frozen

For more on this, read…

Huebert R, 'Canada and the Changing International Arctic At the Crossroads of Cooperation and Conflict in Northern Exposure: Peoples, Powers and Prospects for Canada's North' (2008) 4 IRPP https://irpp.org/research-studies/canada-and-the-changing-international-arctic/

Østhagen A and C H Schofield, 'The Arctic Ocean: Boundaries and Disputes' (2021) Arctic Yearbook

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5.2

Learning from the Svalbard Case

Ilker K. Basaran

Svalbard is an Arctic archipelago lying in the Barents Sea, midway between Norway and the North Pole, and includes all the islands situated between coordinates 74° and 81°N, and 10°E and 35°E.

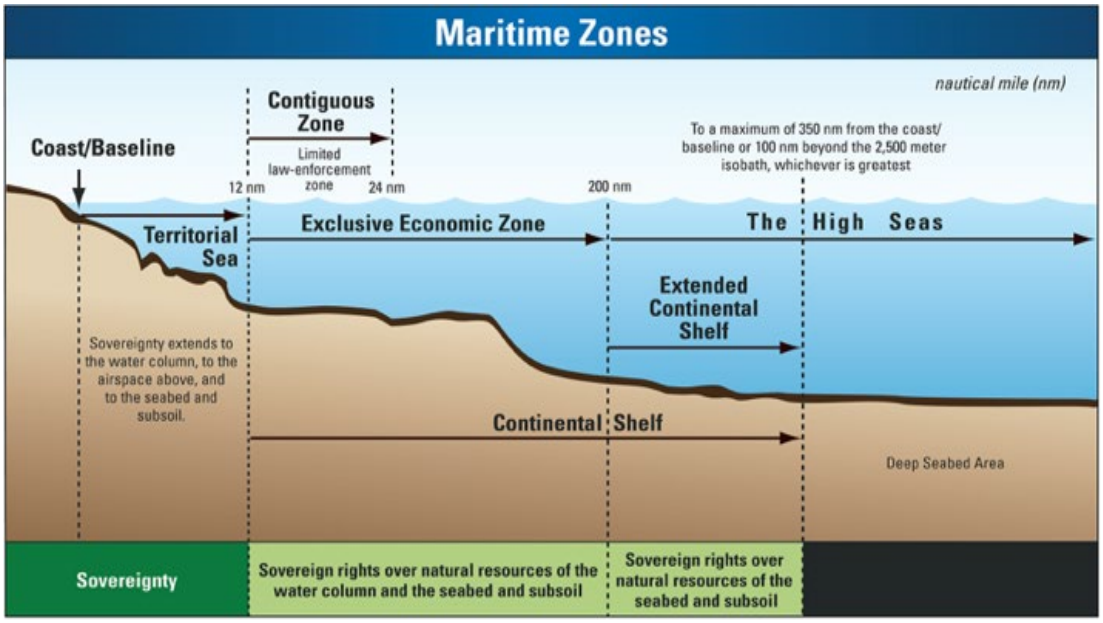
The legal status of Svalbard, which was once considered *terra nullius* - owned by no State- is determined by the Svalbard Treaty, a unique international agreement signed among nine States in Paris on 9 February 1920 and entered into force in 1925.

According to Articles 2, 3, and 7 of the Svalbard Treaty, Norway is given sovereignty over the Svalbard archipelago with the power to maintain the legal and administrative governance. All Treaty parties are also provided with non-discriminatory access to resources, including fisheries and mining, on land and territorial waters of Svalbard. In other words, under Norway's administrative power and control, there is a shared resource sovereignty over the islands.

Last decade, the Svalbard Treaty and its regime for maritime jurisdiction have become a topic of interest and have been publicly questioned by other States, partly due to climate change and the accelerated rate of sea ice retreat in the Arctic Ocean. The region is now accessible for marine transportation and with the advancement of technology, it is relatively easier to access some of its resources.

The Treaty mentions the "territorial waters" of Svalbard as a zone where Norway is entitled to have sovereignty. In other words, the term "territorial waters" is the maritime application of the Svalbard Treaty. However, the concept of maritime delimitation has drastically changed over the years, and the term "territorial waters" requires further interpretation because at the time when the Treaty was signed customary international law would allow States an approximate distance of three to four nautical miles (nm) for territorial waters (a measure based on the *cannon shot rule*, which is roughly the distance equal to the length of a cannon shot). But later, particularly in the 1960s and

'70s, the concept evolved into today's understanding of maritime delimitation cited in the United Nations Convention on the Law of the Sea (UNCLOS).



UNCLOS Parts II to VII provide jurisdictional rights to coastal States through various zone delimitation, including territorial sea, contiguous zone, and exclusive economic zone (EEZ), and high seas.

Coastal State sovereign rights over these maritime zones are exclusive and do not require any use or occupation, or even any express legal declaration. However, as an option, UNCLOS additionally provides States a right to claim extended (outer) continental shelf (up to 350 nm) through the high seas. This is only possible if the claimed outer continental shelf is the extension of the continental crust of your continental shelf and the process to determine this zone is handled through a UN agency, the Commission on the Limits on Continental Shelf (CLCS).

It is important to note that each maritime zones provided with UNCLOS have corresponding rights and duties attached to it. For example, a coastal State can exercise sovereign economic rights in the water, the seabed, and the subsoil of its continental shelf in regard to economic exploitation and exploration of the area. This means that States can explore and exploit natural resources, manage fish stocks, use the wind and current for energy, and build artificial islands and installations.

Therefore, the central question in the Svalbard case is whether the Treaty applies beyond the territorial sea, and specifically provides equal rights for all Treaty parties to enjoy economic benefits. For this, an interpretation of the term "territorial waters" is needed to elucidate the objective and authenticated meaning of the term when the parties signed the Treaty.

While Norway states that Treaty should be interpreted literally and restrictively, therefore, does not allow extension of the zone and provides Norway power to limit the rights of any third party to the area from the territorial waters to EEZ, other signatory States, particularly Russia, claim that the Treaty should be interpreted with today's understanding of maritime delimitation and give permission to equal distribution of the resources beyond territorial waters. According to Russia, the current arrangement discriminates against other signatory States and only helps Norway to carry out its economic activities in the area.

Over the years, Norway has taken several steps to claim jurisdiction over the waters of Svalbard and mainland Norway. For example, fifty years after the signing of the Svalbard Treaty in 1970, Norway officially established the territorial waters of Svalbard to be four miles. Additionally, in 1976, with the Royal Decree of 17 December 1976, Norway established an exclusive economic zone (200 nm) for its mainland. A year later in 1977, Norway established a 200-mile Fisheries Protection Zone (FPZ) around Svalbard Islands. In doing so, Norway argued that Svalbard's FPZ was established with the UNCLOS regime in 1977 for the purpose of sustainable fisheries management, and is not connected to the Svalbard Treaty. In 1994, Norway allocated quotas on cod catches for all States, other than Russia and Norway, both of which have a history of fishing in the area. And finally in 2006 Norway settled a dispute with Denmark regarding the delimitation of the continental shelf between Svalbard and Greenland.

Similarly, Norway also has the authority to designate the entire land area of Svalbard and its waters within the territorial limit as protected areas in order to preserve the environment in Svalbard, and in particular to protect wilderness, landscape elements, flora, fauna, and cultural heritage. This authority is granted by the Act on Protection of the Environment in Svalbard (No. 79 of 2001) and it has its root to Svalbard Treaty. These new measures in

the environmental standards establish restrictions on where tourism activities, including cruise industry, can occur and place additional demands on tour operators.

Overall, from the perspective of today's law of the sea concept and the historical developments in the maritime domain of Svalbard, particularly with the FPZ, it is clear that the Archipelago has a continental shelf of its own, but Norway did not declare its EEZ and has not opened up any areas for economic activities in the Svalbard continental shelf, therefore, preventing any State from accessing the resources.

To illustrate the Norwegian position on this issue, we can examine the latest Norwegian Supreme Court decision delivered on March 20, 2023. The case concerned about the validity of a decision that denied a foreign fishing company a license to catch snow crab on the Norwegian continental shelf of Svalbard. The main issue was the applicability of the provisions set forth in Svalbard Treaty Article 2 -equality rule- on the continental shelf of Svalbard. The Supreme Court unanimously decided that the Article 2 applies to Svalbard's internal waters and maritime territory, which stretches 12 nautical miles from the baselines, but not on the continental shelf of Svalbard.

Overall, Svalbard present a unique case for international politics and law. Its unique nature is also the reason why dispute resolution is not as easy as it seems in Svalbard and its surrounding waters. Therefore, it appears that this dispute will continue with no sign of resolution in the near future.

For more on this, read…

The legal regime of the maritime zones around Svalbard (An analysis in light of recent developments in international law), University of Oslo, Available at https://www.duo.uio.no/bitstream/handle/10852/87820/1/221.pdf

Dyndal G L, 'The Political Challenge to Petroleum Activity around Svalbard' (2014) 159 The RUSI Journal 82

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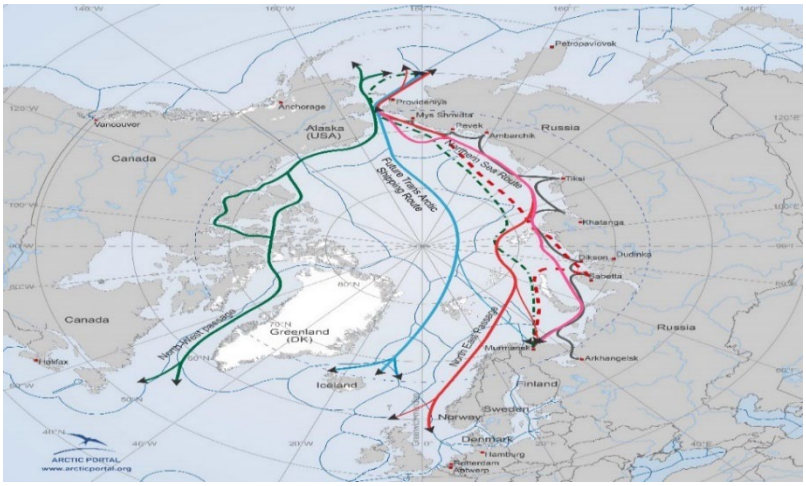
5.3

Legal Status of the Arctic Sea Routes

Adnan Dal

While climate change is having a negative impact on Arctic ecosystems and communities, it is also creating some important economic opportunities. Especially in recent years, the increasing use of the North Sea Route (NSR) and potential use of the Northwest Passage (NWP) and Transpolar Sea Route (TSR) has become a commercial issue. There are many implications regarding these routes. First, they offer fewer distance and time advantages, less CO2 due to less fuel and important cost savings for navigation from Asia to Europe and America compared to existing traditional shipping routes (Suez, Panama, and Malacca). Second, some constrains could be pointed. These routes are not accessible in winter and may need escorts during voyages. Also, infrastructure capacity is limited for navigation along the routes and that should be fixed for commercial shipping.

The Northern Sea Route conceptualized by Russia goes through the Siberian Arctic coast and passes along the Russian Arctic straits. The Northwest Passage, on the other hand, connects Europe and Asia via the Canadian Arctic islands and Alaska. In other words, most of the Northwest Passage lies in internal waters claimed by Canada, while the Northern Sea Route is essentially outside Russian territorial waters. As for the Northern Sea Route, Russia has argued that the Northern Sea Route should be legalized as "internal waters'', whereas the United States claims it must be defined as " international straits". The route is given a special role referred to as 'vital areas of national interest' within Russian Maritime Strategy in 2022. On the other hand, from the side of the Northwest Passage, Canada, and the United States also make similar claims. Therefore, there is a need to clarify how routes are



expressed and the extent to which parties build political insights in relation to routes.

First of all, the Northern Sea Route has been historically dominated by Russia. It lies within Russia's exclusive economic zone. For decades, Russia has claimed that parts of the Northern Sea Route, including the Vilkitsky, Shokarsky, Dmitry Laptev, and Sanikov Strait, are Russian internal waters. The United States, on the other hand, disputed this claim by classifying the Northern Sea Route as an international strait. It was in the years 1963 and 1964 that the Soviet Union reacted by sending a memorandum against the US icebreakers trying to survey the Laptev and the East Siberian Sea. At this point, the Soviet Union believed that the Northern Sea Route was part of its internal waters, and therefore foreign ships transiting the Northern Sea Route would need to seek permission before sailing according to the article 234 of UNCLOS. On the contrary, the United States claims that permission cannot be sought while navigating international straits. The question remains whether the Northern Sea Route is an international strait or part of internal waters.

The US focus on international straits is based on rights of transit for foreign ships transiting the straits. In light of this reasoning, according to part III of the United Nations Convention on the Law of the Sea (UNCLOS), transit passages are possible if the waters concerned are considered international straits. So, is the Northern Sea Route an international strait, as the US claims?

UNCLOS defines international straits as those "*which are used for international navigation between one part of the high seas or an exclusive economic zone and another part of the high seas or an exclusive economic zone*". The issue here regarding the Northern Sea Route is not a geographical criterion, but a functional one. So, has the Northern Sea Route been used as a functional standard for international navigation so far?

Both actual and potential uses of the straits are available for functional criteria. In the 1949 International Court of Justice (ICJ) case of the Corfu Channel, "actual use" was prioritized in the definition of the international strait, and as a result, almost all countries except the United States accepted "actual use" for international straits. In this regard, the fact that the actual use for international

transits is taken into account by all states strengthens the claim that the Russian straits belong to Russian internal waters.

Although the straits within the NSR are not international straits (some are part of Russia's internal waters), in the UNCLOS sense, the potential use and increased shipping activity within the NSR could change this situation. Accordingly, Russia may be forced to accept the right of passage within the NSR as an international strait.

International straits/internal waters controversy is available over the NWP as well. Both parties to the dispute over the legal status of the NWP -Canada and the United States- have distinct claims. The US argues that the NWP is an international strait while Canada tries to delineate it as internal waters that mean full coastal state control. The first thing to note is that Canada has full sovereignty over the islands in the archipelago, so the dispute in question is not a sovereignty dispute. It is more related to the waters -whether they are internal waters or international straits- between these islands.

The controversy over the NWP stems from SS Manhattan's (a US-owned ship) transit through the NWP in 1969 when the U.S. did not seek permission to transit through this route. In response, Canada, in 1970, sought to expand its territorial waters from 3 nautical miles to 12 nautical miles as its first legal claim to Arctic waters sovereignty and adopted the Arctic Waters Pollution

Prevention Act (AWPPA) which underlines the Arctic waters as 100 nautical miles from the mainland into the Beaufort Sea.

In 1988, both parties declared their willingness to accept an agreement on the Arctic waters. The United States signed the agreement, stressing that all transits by US icebreakers would be managed with the approval of the Canadian government. Both parties have reached an agreement without changing their positions on the Arctic Ocean. In other words, they "agreed to disagree" on the issue of the NWP's legal status.

Despite different claims over the NWP's legal status, no definitive dispute has arisen between Canada and the United States since the aforementioned agreement was signed. Note that without Canada's precautions regarding transit within the NWP, transit would likely be internationalized due to increased foreign transit and may be subject to transit rights. The same situation applies to the NSR as well.

For more on this, read…

Keupp M M (Eds), *The Northern Sea Route: A Comprehensive Analysis* (Springer 2015)

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5.4

Article 234 of UNCLOS and the Arctic Prerogative for an Ice-covered Area

Kamrul Hossain

Article 234 of the UN Convention on the Law of the Sea (UNCLOS) provides an exception to the rules generally applicable to states' Exclusive Economic Zone (EEZ). The Article applies up to the limit of the EEZ, or 200 nautical miles from the coastline of a coastal state. Technically, a state's EEZ is measured from the point marking the 12-nautical-mile limit of its territorial sea, whereby the outer limit of the zone is 188 nautical miles from the outer limit of the territorial sea. A coastal state enjoys full sovereignty in its territorial seas. However, the exercise of sovereign rights by coastal states in their EEZs is limited to resource extraction, management of natural resources and economic exploitation. According to Article 60 of the UNCLOS, coastal states are entitled to regulate certain activities in their EEZs in connection with, for example, marine environmental protection, conservation of living resources and construction of artificial islands or structures. In doing so, however, the coastal states must pay due regard to the rights of other states to enjoy certain entitlements, including freedom of navigation.

While such primary provisions generally apply to ice-covered EEZs much as they do to all others, Article 234 offers special prerogatives to coastal states, one being a right to regulate the zone with additional and stricter measures. A marine area with ice present for most of the year may cause sensitive and severe climatic conditions which can obstruct navigation or expose vessels to exceptional and unpredictable hazards. In fact, the unique features prevailing in ice-covered marine areas entail heightened risks. Accordingly, states may implement stricter measures to prevent, reduce and control marine pollution from vessels so that no major harm or irreversible disturbance to the ecological balance will occur. However, to adopt and enforce stricter regulations, coastal states have to satisfy two criteria. First, no restrictions on navigation should be put in place without explicit justifications, supported by best available scientific evidence, that the marine environment is at risk. Second, the regulations must be non-discriminatory, meaning that they have to apply equally to all vessels.

The reference to "ice-covered areas" in Article 234 does not make specific mention of the Arctic. However, the Arctic was manifestly ice-covered during the time when the UNCLOS was signed (1982). Even today, most of the Arctic Ocean is ice-covered for most of the year. What is more, the Arctic is characterized by harsh climatic conditions, with these including extreme low temperatures during the long winter months, a long period of darkness, unpredictable weather and climatic conditions, alteration of sea-ice dynamics and a change in the historical variability of the climate. These conditions render the Arctic marine area a risk-prone region exposing vessels to extraordinary hazards with the potential to cause irreversible damage and disturbance to the marine environment and its ecological balance. Hence, the term "ice-covered areas" in Article 234 can be seen as capturing the situation prevailing in the Arctic maritime zones.

Given the increase in navigation now that the Arctic sea routes have been open during the summer months, the applicability of Article 234 has become a particularly salient issue. The two most important sea routes in the Arctic are the Northwest Passage (NP) and the Northern Sea Route (NSR). While the NP consists of frozen water bodies claimed by Canada as its internal waters (through historic title), the NSR includes both territorial seas and Exclusive Economic Zones (EEZs). These routes qualify as "ice-covered areas", whereby coastal states may impose stricter regulations governing their use under Article 234. The focal coastal states in this case are Canada and the Russian Federation, for the NR and NSR, respectively, and they have explicitly invoked Article 234.

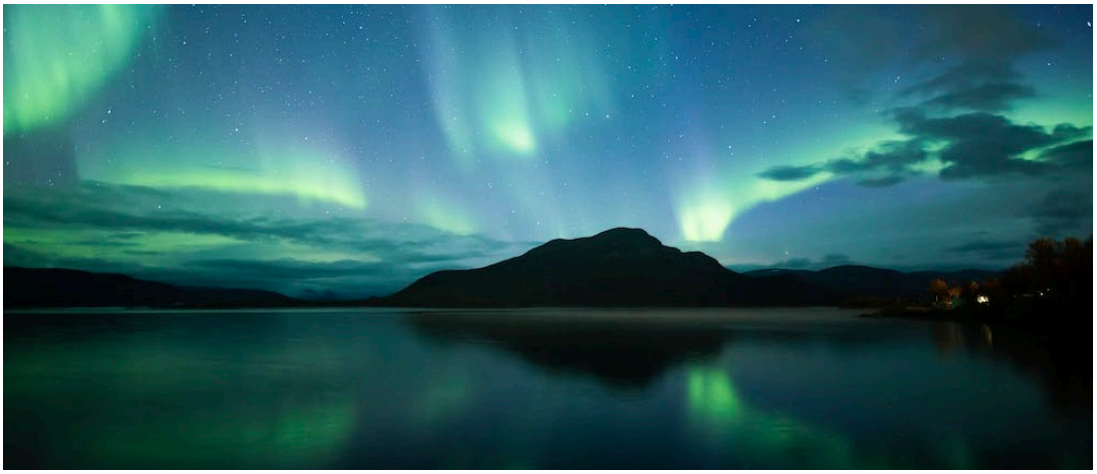
However, UNCLOS does not provide detailed guidance on what those special measures might be. The coastal states enjoy a fair amount of discretion regarding how they implement Article 234. This being the case, national regulations preventing, minimizing and controlling pollution from ships very often apply to a state's EEZ. The regulations also frequently contain provisions concerning the safety of navigation. Special and stricter measures enacted and invoked by Russia inform vessel operators how and when to seek permission for navigation through the NSR, the detailed requirements concerning the documentation needed and restrictions on entering and sailing through the route. Ships are not allowed on the NSR if they do not meet the requirements indicated in the regulation. Of importance here is the requirement that

operators engage icebreaker services, a measure imposed and to be undertaken by dint of Article 234.

For example, Russia's regulation not only requires the use of its icebreakers specifically, but also imposes fees for the use of the services along the length of the NSR. The particular regulation is an exceptional measure adopted as a result of national application of Article 234. However, determining the fee for and extent of the services rendered as well as the risk to the environment is complex, and will probably be a contentious issue in the future as use of the route increases. Currently, ships have to pay the fees whether they use the icebreaker services offered by Russia or not. In other words, operators pay the fees for their mere presence in the NSR. This would spark yet another dispute concerning the legal status of the route as an "ice-covered area". Article 234 refers to "ice covering … for most of the year". The phrase "most of the year" would qualify the NSR as an "ice-covered area" despite its being ice-free for some of the year, a period argued to be less than six months. In sum, despite the questions that may be raised in the future, the Arctic marine areas possess the legal status of "ice-covered" areas within their EEZs; accordingly, the coastal states enjoy a prerogative whereby they may adopt and enforce such stricter and restrictive regulations as may be necessary for the protection of marine environment and its ecological balance.

For more on this, read…

Cowan E and Others, 'Global governance in Arctic waters – new times. new stressors. catching up with pharmaceuticals' [2022] The Polar Journal 1



5.5

Boundary Demarcation in the Arctic Ocean: The Outer Limit of the Continental Shelf

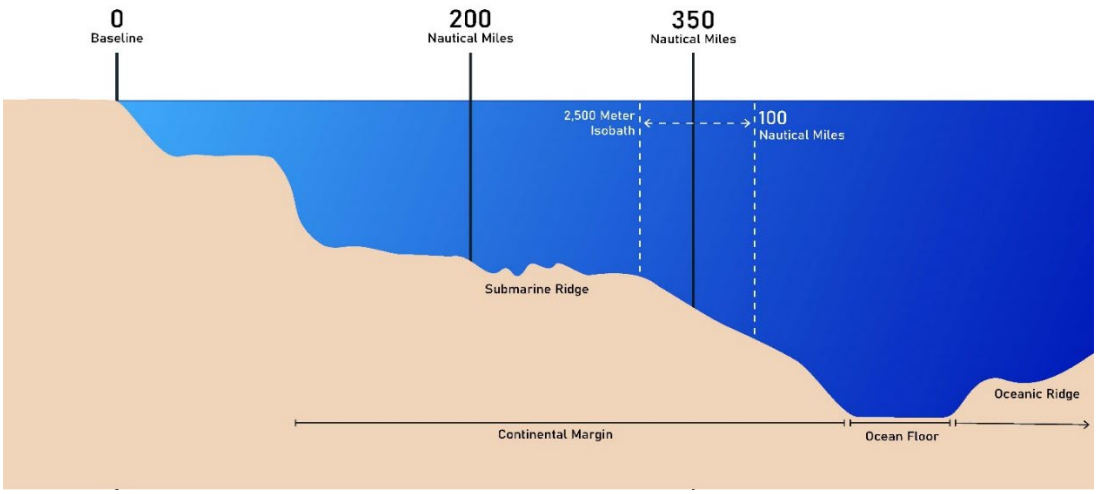
Kamrul Hossain

The continental shelf is the natural prolongation of the coastal states' landmass into the seabed. This natural prolongation – the so-called continental margin – is scientifically determined by judging the similarity in geological characteristics between the coastal state's territorial landmass and the seabed features of the proposed continental shelf. For example, submarine ridges share geological similarities with coastal states' landmasses, while submarine elevations form natural components of the continental margin. The oceanic ridges that share the geological characteristics of the ocean floor are free-standing features and do not share the elements of territorial landmasses; therefore, they do not form a part of continental shelves. Article 76 of the United Nations Convention on the Law of the Sea (UNCLOS) provides detailed guidance on the scientific basis for determining the outer limit of the continental margin.

In addition to the natural prolongation of a country's landmass, UNCLOS sets a limit on the so-called juridical continental shelf at 200 nautical miles, regardless of whether the natural prolongation meets the limit. Nevertheless, if the prolongation extends beyond 200 nautical miles, a coastal state, subject to the conditions set out in Article 76, enjoys the right to delineate the outer edge of its continental margin. Setting the outer limit beyond 200 nautical miles is not an automatic process but one requiring the approval of the Commission on the Limits of the Continental Shelf (CLCS), a body established under the UNCLOS. However, once a state's continental shelf is established, that coastal state enjoys sovereign rights over the living and non-living resources of the shelf.

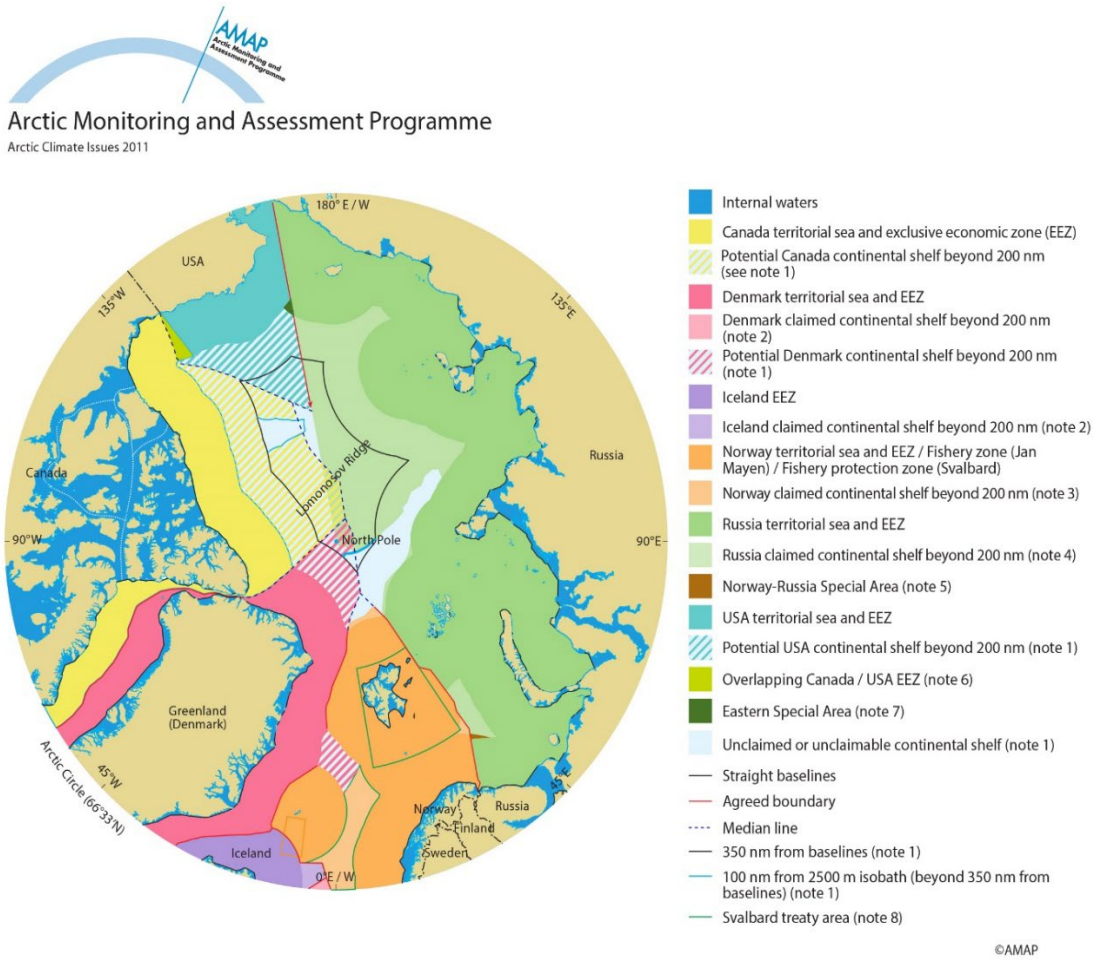
According to the procedure set out in Article 76 to extend the continental shelf beyond 200 nautical miles, a coastal state must file a submission with the CLCS, supported by proper scientific data, showing the natural prolongation of the continental margin. If accepted, Article 76 provides two alternatives: a strict legal limit of 350 nautical miles from the baseline on submarine ridges, regardless of whether the natural prolongation goes farther, or a maximum of

100 nautical miles outward from the point where the depth of the water column reaches 2,500 meters. Of note here is the time constraint: a state must submit its data to the CLCS for an extension within ten years of the entry into force of UNCLOS for that particular state. Although UNCLOS entered into force in 1994, the countdown of ten-year started in 1999, after the CLCS had adopted the scientific and technical guidelines for the extension.



While each state with an Arctic coastline may delineate its continental shelf as extending beyond 200 nautical miles, the delineation does not have legal status until the CLCS assesses the submissions and provides recommendations affirming the scientific validity of the geological data presented before it. The submission for a proposed extension is only complete when it has been redrawn by the coastal state following the CLCS's recommendations on the submission.

In the Arctic Ocean, the seabed consists of several ridge systems, such as the Lomonosov Ridge, the Alfa-Mendeleev Ridge and the Gakkel Ridge. All Arctic coastal states except the United States (a non-party to UNCLOS) have made submissions for extensions of their continental shelves beyond the 200 nautical miles of the standard juridical continental shelf. In 2001, Russia became the first country to submit scientific data to the CLCS. Russia submitted additional scientific data thereafter on two other occasions, in 2015 and in 2021.



Russia's submissions included the Alpha-Mendeleev, the Lomonosov, and a part of the Gakkel ridges, which stretch from the North Pole to the edges of Canada's and Greenland's exclusive economic zones (EEZ) and standard juridical continental shelves. According to Russia, the scientific basis for including the ridges is that the ridge systems constitute either submarine ridges or submarine elevations and are thus natural prolongations of the country's continental margin. However, similar arguments were made in submissions by Denmark (Greenland) in 2014 and Canada in 2019. While the former's claim extends from Greenland's EEZ across the North Pole and into Russia's EEZ, the latter's claim reaches the North Pole but not the Russian EEZ. In other words, except for some pockets, most of the Arctic Ocean-bed forms a part of the continental shelf claims of one or more Arctic states. Overlaps are dealt with through a separate process (under Article 83) without having the CLCS involved. However, there is a consensus among the Arctic coastal states with overlapping claims: they have consistently confirmed that they do not object to the CLCS considering such submissions, for example, by making recommendations for joint submissions.

Given that, except for a few pockets, most of the Arctic Ocean floor is the continental shelf of one or another coastal state, the likely course of action would be a delimitation process among the coastal states with overlapping claims in accordance with the procedure set out in Article 83. The delimitation process is a negotiated outcome among such states that generally entails an equal or equitable sharing of overlapping entitlements. For example, on 15 September 2010, pursuant to the acceptance by the CLCS of the Norwegian submission, Norway and Russia peacefully concluded the "Agreement on Maritime Boundary in the Barents Sea and the Arctic Ocean" to resolve their overlapping claims on the continental shelves in the Barents Sea.

For more on this, read…

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CHAPTER 6: INSTITUTIONS DEALING WITH ARCTIC AFFAIRS

6.1
The United Nations and the Arctic

Ebru Caymaz

The Arctic has long been a special region with a heightened focus in recent years. Being a prominent case owing to its abundant resources and diverse economic activities, it has taken growing attention accelerated further by the negative effects of climate change Therefore, both Arctic states and non-Arctic states devote close attention to the region and the Arctic Ocean, since parts of the Arctic Ocean are open to all states of the world with its associated economic opportunities such as fishing and shipping. On the other hand, in addition to existing challenges, sustainability of the Arctic has been deeply impacted by increasing economic activities. Accordingly, intergovernmental organizations and forums such as the United Nations (UN) and the Arctic Council present commitment to develop suitable solutions for enhancing sustainability without compromising economic development of indigenous people.

The UN has developed many-sided relations with the Arctic which directly and indirectly affect the region. First of all, all eight Arctic states are the members of the UN. In addition, being adopted in 1982 as an incorporative body of treaties, customs and international agreements to maintain order, the UN Convention on the Law of the Sea (UNCLOS) provides a legal ground for the regulations governing the Arctic Ocean. Following the Ilulissat Declaration signed in 2008 by the five Arctic coastal states, UNCLOS provided an overreaching legal framework for the Arctic. Besides, in addition to the "Indigenous and Tribal People Convention" in 1989, the "Convention on Biological Diversity" (CBD) in 1993, and "Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond Jurisdiction" in 2023 stand out as the progressive steps adopted by the UN. Furthermore, as a milestone achievement in terms of increasing sustainability, the Polar Code was developed in 2014 by the International Maritime Organization (IMO). While its legal framework is still being enhanced, it is expected that the involvement of the UN will further continue. The Polar Code introduces

applicable solutions for ship owners while navigating through ice-covered waters, harsh weather conditions, and dark periods in the Arctic. In order to minimize the ecological footprint, it also prescribes limits on oil, sewage, and chemicals discharge as well as suitable ship designs for preventing accidents. Besides, the UN announced its voluntary measures to address black carbon emissions to strengthen the environmental governance in 2021. Under the umbrella of the UN, regulations of the IMO become highly significant in terms of environmental governance and climate change mitigation. Herein, the working group established under BBNJ is committed to develop suggestions for the conservation, as well as sustainable use of marine resources without compromising biological diversity beyond areas of national jurisdiction.

Moreover, collaborating with the Arctic Council, the UN has also developed several projects to enhance sustainable development, resilience, as well as the living standards of the indigenous people living in the Arctic. A Working Group on Sustainable Development (SDWG) was established in 1998. The working group's primary focus was determined as to advance sustainable development while promoting economic, social, and environmental conditions of Arctic communities. The Council also declared it would follow the sustainable development goals of the UN in 2017. In the same year, the Council's SDWG updated its agenda and activities to achieve the goals of 2030 Agenda. Therefore, the working group determined its priority areas for the Arctic as water, food, and energy. The numbers of the projects such as *Arctic Food Innovation Cluster, Arctic Resilience Framework, Improving Health through Safe and Affordable Access to Household Running Water and Sewer, On Arctic & One Health, the Arctic as a Food-Producing Region,* and as well as their scope and contents are expected to grow.

In addition, the Indigenous peoples of the Arctic are officially represented within the UN as well. There is a working group of the UN that focuses on the issues related to indigenous affairs. That Working Group of Indigenous Populations met in 1982 for the first time and August 9 was chosen as the annual meeting day for the remembrance of that meeting. The Inuit Circumpolar Council (ICC) started to work within the UN and received its consultative status 1983. The ICC's mission to advance human rights of the indigenous populations has been fulfilled since then. One of the major contributions of the ICC under the UN is to assist the process leading to

adaption of the UNDRIP (UN Declaration on the Rights of Indigenous Peoples) in 2007. The involvement of the ICC is particularly significant since it represents Inuit in Greenland, Alaska, Russia, and Canada. Establishing the UN Permanent Forum on Indigenous Issues in 2000 is another milestone achievement to deal with indigenous rights and non-state actors also can become members. As a high-level advisory body including indigenous representatives, the Forum has the mandate to conduct discussions about economic, social, educational, cultural, environmental, public health, and human rights issues of the indigenous peoples.

Founded by the UN in 1988, the Intergovernmental Panel on Climate Change (IPCC) Reports aim to guide all stakeholders against the associated risks of climate change. Since mitigation of climate change is one of the major goals at a planetary level, there has been a special emphasis on the Arctic in IPCC Reports as the effects of human-induced changes now clearly be seen in glaciers and Arctic sea ice and thawing of permafrost. Also, being highlighted in the Paris Agreement, the term resilience is highly interconnected to the management and governance of resources as well as the people of the Arctic. Therefore, enhancing Arctic Ocean resilience has been added to the UN agenda.

Since achieving environmental sustainability necessitates a multi-lateral approach and governance, the UN has developed multiple projects that benefit from different disciplines ranging from physical sciences to social sciences. Accordingly, the UN Environment Programme has initiated six flagship projects to address major challenges affecting the Arctic. *Blue Economy, Gender Equality, Mainstreaming Arctic Biodiversity, Actions for Arctic Biodiversity, Contaminant Issues: Pops and Mercury,* and *Arctic Migratory Birds Initiative* have further strengthened the environmental governance in the region. In this process, the UN Human Settlements Programme also plans to conduct major projects to enhance the adaptive capacity of the cities that face with negative effects of climate change in the Arctic.

On the other hand, whether and how sustainable development (SD) goals of the UN can be achieved without compromising the Arctic resilience remains as a critical question. Expansion of economic activities, extracting and exploiting of resources, and transporting them through the emerging Arctic

Sea Routes poses serious risks to the fragile environment of the region. The region warms faster compared to the other parts of the world which also transforms ecosystems while indigenous and local cultures struggle to adapt to these changes. In addition to maritime activities, increasing tourism and mining activities have also sparked discussions pertaining to sustainability. Therefore, recent research focus on whether the UN SD framework would establish balance between development needs of the population and the Arctic resilience. While the UN Framework Convention on Climate Change emphasizes the prominence of risk framing, both resilience and vulnerability have been seriously impacted by the COVID-19 in addition to existing societal challenges Furthermore, the Polar Code is also criticized due to its lack of mandatory measures especially in terms of pollution and shipping accidents.

To sum up, aside from critical perspectives, when the previous, current, and planned projects are taken into consideration, the UN has taken concrete steps to find the nexus between environmental governance, indigenous matters, water, food, and energy in the Arctic.

For more on this, read…

World Wide Fund for Nature (WWF), 'Sustainable Development Goals: Shaping the Future of the Arctic' (2018) The Circle 2
https://apiwwfarcticse.cdn.triggerfish.cloud/uploads/2022/04/28113853/thecircle0218_web_1.pdf

Clote P, 'Implications of Global Warming on State Sovereignty and Arctic Resources Under the United Nations Convention on the Law of the Sea: How the Arctic is no Longer Communis Omnium Naturali Jure' (2008) 8 Rich J Global L & Bus 195

'UN Permanent Forum on Indigenous Issues (UNPFII)' Website
https://www.inuitcircumpolar.com/icc-activities/united-nations-and-human-rights/un-permanent-forum-on-indigenous-issues/

Eegeesiak O, 'The Arctic Ocean and the Sea Ice is Our Nuna' (UN Chronicle, May 2017)
https://www.un.org/en/chronicle/article/arctic-ocean-and-sea-ice-our-nuna

6.2

The Arctic Council

Kamrul Hossain

The Arctic Council (AC) is the leading intergovernmental organization of the eight circumpolar Arctic states that have sovereignty over most of the Arctic. The countries are Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and the United States. The AC is often referred to as a high-level intergovernmental forum. Government representatives at the ministerial level from the members join in the central decision-making process. The institutional structure of the AC is also designed to engage the Indigenous peoples' organizations in the Arctic as political partners: their representatives have a unique place on and status in the AC as "permanent participants".

The origins of the AC are rooted in the institutional framework of the Arctic Environmental Protection Strategy (AEPS), an agreement concluded in 1991. Key to achieving this milestone was the Rovaniemi Process, which assembled the environmental ministers from all eight Arctic states. They proceeded to sign the Declaration on the Protection of the Arctic Environment, which set out the institutional structure of the AEPS. The AEPS was eventually merged with and incorporated into the AC, given that the participants in and functions of both frameworks overlapped.

AEPS (1991) (Rovaniemi Process) → AC (1996) (Ottawa Declaration)

The founding document of the AC is the Ottawa Declaration, signed by the Arctic countries in 1996. Its goal is to institutionalize cooperative actions designed to address vital issues such as environmental protection and sustainable development, with this work to be done in close cooperation and consultation with the region's Indigenous peoples. The unique structure of the AC lies in its inclusion of Indigenous peoples as partners with the state representatives. This arrangement recognizes the status of Indigenous peoples as political players in intergovernmental decision-making forums.

Today, the AC has become the most credible body for Arctic governance. One of its ambitions is to promote broader engagement, primarily between the

Arctic nations and Indigenous peoples. Yet it also seeks to engage other stakeholders, including non-Arctic states and non-governmental organizations in issues related to sustainable development and environmental protection. The AC does not have the status of an intergovernmental organization as defined by international law. It was not the Arctic countries' intention that it be one, given that its foundation lies in the Ottawa Declaration. Nevertheless, the policy decisions and resolutions the AC produces are often regarded as *soft law*.

In addition to promoting political cooperation and interaction among its members, the AC supports scientific knowledge through scientific research on issues related to the management of Arctic resources, protection of the environment and promotion of sustainable development. While the Ottawa Declaration expressly excludes issues related to military security from the Council's remit, the scientific and policy assessments produced by the AC address issues falling within a revised and expanded conception of security, such as environmental and human security.

The knowledge resulting from the AC's work is often translated into policy measures that specify the actions and methods for implementation. Some measures propose binding legal obligations for the Arctic nations, for which the AC provides guidance. For example, the AC served as the venue, and facilitator, for negotiating three legally binding regulations for the Arctic nations:

- The 2011 Arctic Search and Rescue Agreement (Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic).
- The 2013 Arctic Oil Spill Agreement (the Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic).
- The 2017 Arctic Scientific Cooperation Agreement (the Agreement on Enhancing International Arctic Scientific Cooperation).

The members of the Arctic Council fall into three groups:

1) *Member States.* These are the eight circumpolar Arctic nations with sovereignty over the Arctic territories.

2) *Permanent Participants* comprise the representatives of the six recognized Indigenous peoples' organizations. Although the permanent participants do not have the right of veto in any decision-making, they do possess full consultation rights and actively participate in the process of negotiations and decisions. They sit and engage at the same table with the state members and offer valuable contributions to the activities undertaken by the AC.

3) *Observers* include state and non-state participants. Currently, this group consists of 13 countries from Asia and Europe as well as 25 intergovernmental, interparliamentary and non-governmental organizations.

When it was founded, the AC did not have a permanent administrative structure. A decision was later made to establish one, and in June 2013 a standing Secretariat began working at the Fram Centre in Tromsø, Norway. The Secretariat provides support services to the AC Chair; members serve as Chair for two years at a time, with the position rotating among them. In addition to the three groups described above, the AC hosts six working groups, whose activities focus on issues ranging from climate change to emergency response. The working groups implement the programs and projects mandated by official resolutions, ministerial declarations or the official documents produced in ministerial meetings.

The AC may also establish separate task forces, or groups of experts to perform specific tasks. Members of a task force, appointed at the ministerial meetings, operate within the framework of the AC. Each task force receives a specific mandate for a designated task to be accomplished within a limited time. For example, negotiating the three agreements listed above was the work of task forces, each set up for the purpose with the corresponding mandate. A task force ceases to exist automatically at the end of its specified term.

Two bodies oversee the administrative functions of the AC: 1) the ministers and 2) the Senior Arctic Officials (SAO). The ministers meet at the end of the Chair's term, that is, once every two years, forming a body comprising the minister of foreign affairs from each Arctic member nation. The SAOs meets

every six months and include high-level representatives from each member state, often ambassadors or senior foreign ministry officials. Both the ministerial meetings and SAO meetings are attended by representatives of the permanent participants and the observers.

For more on this, read…

Wehrmann D, 'The Arctic Council as a Success Case for Transnational Cooperation in Times of Rapid Global Changes?' Arctic Yearbook 2020
https://arcticyearbook.com/images/yearbook/2020/Scholarly-Papers/20_Wehrmann.pdf

6.3

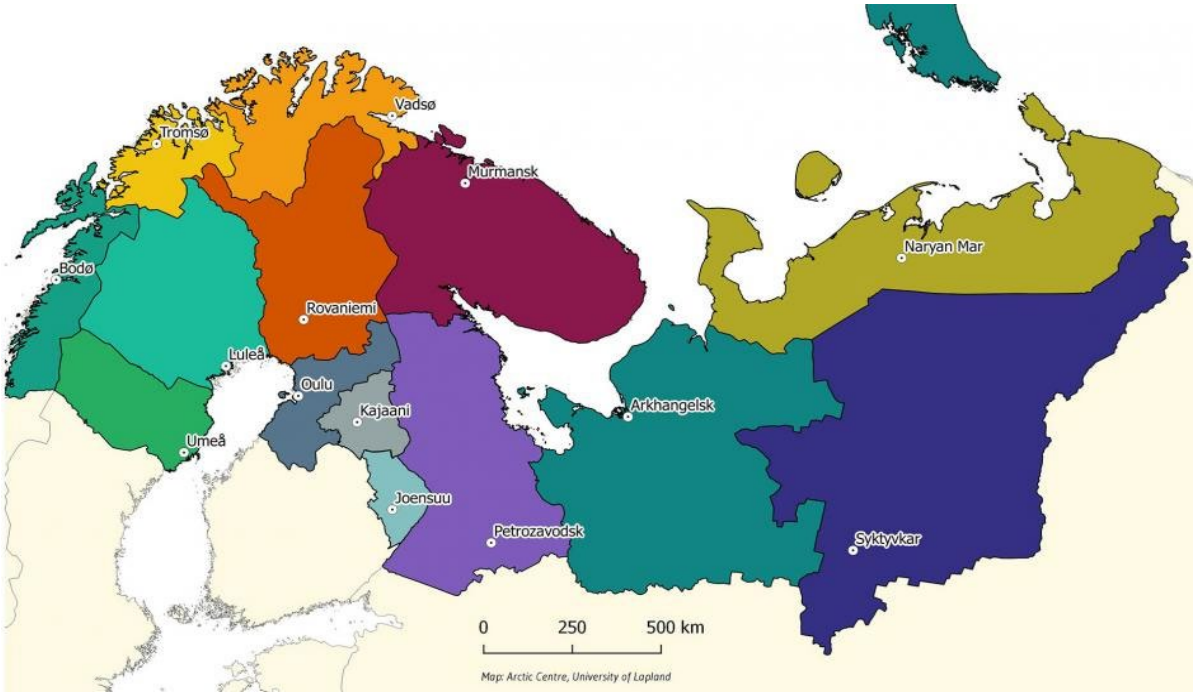
Barents Euro-Arctic Council

Kamrul Hossain

The Barents Euro-Arctic Council (BEAC) promotes regional cooperation and sustainable development in the Barents Region, an expanse of 1.75 million square kilometers with nearly 5.2 million inhabitants encompassing the northernmost parts of Norway, Sweden, Finland, and Russia, including its Kola Peninsula. The BEAC was established in 1993 through the Kirkenes Declaration, following the dissolution of the Soviet Union at the end of the Cold War. The goal was to secure political stability and reduce the tensions that had accompanied the threat of military confrontation, and thereby promote the region as a venue for a peaceful co-existence fostering cooperation. Barents Cooperation takes place at two levels – inter-governmental cooperation through the Barents Euro-Arctic Council (BEAC), and interregional cooperation through the Barents Regional Council (BRC).

The BEAC consists of six countries – Denmark, Finland, Iceland, Norway, Russia, and Sweden – as well as the European Union. However, the chairship rotates among the four countries of the Region – Finland, Norway, Russia and Sweden. The BEAC's administrative functions take place at two levels – a Ministerial Meeting, held at the foreign ministers level after the two-year chair period, and meetings of the Committee of Senior Officials between the Ministerial Meetings, at which the work of the BEAC is organized. In addition to its member countries, the BEAC includes the following as observers: the Netherlands, United Kingdom, Italy, Japan, Canada, Poland, France, Germany and the United States. At the regional level, the BRC consists of thirteen counties or similar sub-national units from the region. The Chairship of the BRC rotates biennially among its thirteen-member units. The Council convenes twice a year and discusses an agenda prepared by the Regional Committee, which consists of civil servants from the member countries.

The following map shows the Barents region as a whole and its thirteen sub-national units:

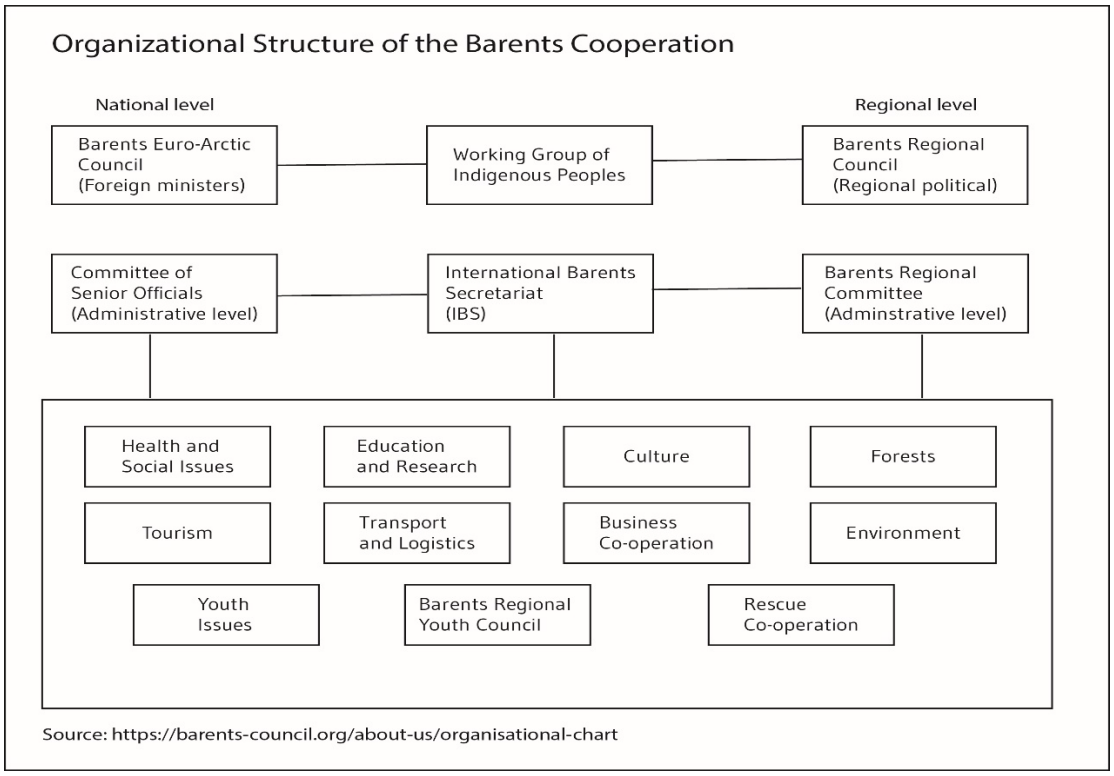


Both the BEAC and the BRC operate through several working groups (WGs). In addition to individual WGs, there are joint WGs, which address areas of cooperation focusing on various topics such as economic cooperation, transport and logistics, Indigenous peoples' issues, environment, education, culture, and health. The Working Groups meet regularly to discuss and develop projects and initiatives within their respective areas. Additionally, there is an independent WG – the WG of Indigenous Peoples (WGIP) – consisting of representatives of the Sámi, Nenets and the Vepsians from their respective organizations. The WGIP has a special status and actively contributes to discussions and decision-making processes, particularly in matters related to Indigenous rights, culture, and sustainable development. The WGIP plays an advisory role in both the BEAC and the BRC, and has access to all other WGs. The Chair of the WGIP is a member of the Committee of Senior Officials (CSO) and the Barents Regional Committee.

Barents cooperation within the framework of the BEAC and BRC is supported by a permanent international secretariat based in Kirkenes, Norway. It was established in 2008 to secure coherent and efficient Barents cooperation. The Secretariat is responsible for coordinating activities, providing administrative

support, facilitating communication, and assisting in the implementation of decisions and projects.

Structure of the BEAC and BRC



As shown in the diagram, the BEAC and the BRC cooperate closely with each other. This collaboration works to strengthen regional integration, improve living conditions, and promote sustainable development in the Barents Euro-Arctic region. Some key areas of Barents cooperation furthered through the Barents Euro-Arctic institutional set-up are discussed in what follows:

Sustainable development: Barents cooperation aims to promote sustainable economic, social, and environmental development in the region. Through the efforts undertaken by its various WGs, the cooperation has included enhancing infrastructure, energy cooperation, tourism, and cultural exchanges. However, the region's unique environmental conditions are taken into consideration while taking actions in these areas. The collaborative projects address environmental challenges, including pollution, climate change, and conservation of biodiversity. Sharing information through collaborative projects improves the understanding of environmental issues and promotes sustainable practices.

An inclusive regional governance: The BEAC facilitates dialogue and cooperation between regional and local authorities, Indigenous peoples, stakeholders and civil society organizations. Thus, the cooperation aims to offer an inclusive forum for a range of voices in order to strengthen democracy, human rights, and good governance practices in the Barents Region.

People-to-people contacts: Cooperation in the Barents supports initiatives that promote interaction, exchanges, and mutual understanding among the people of the Barents Region. This includes educational and youth programs, cultural events, sports cooperation, and joint research projects.

Cross-border cooperation: The cooperation in the Barents Region encourages collaboration on a wide range of issues across national borders, including economic development, transportation, healthcare, emergency preparedness, and environmental protection. It facilitates practical cooperation through various working groups and joint projects.

All in all, cooperation in the Barents has been instrumental in promoting regional stability, good governance and inclusive decision-making, economic development, environmental protection, and Indigenous rights in the region. By fostering dialogue, collaboration, and joint initiatives through its various WGs, cooperation fostered by the BEAC has made significant strides in addressing common challenges and harnessing the potential of the region.

For more on this, read…

Joenniemi P, 'The Barents Euro-Arctic Council' in A Cottey (eds), *Subregional Cooperation in the New Europe* (Palgrave Macmillan 1999) https://doi.org/10.1007/978-1-349-27194-8_3.

6.4

Regional and Transnational Actors for Arctic Governance

Juha Saunavaara & Aileen Aseron Espiritu

Arctic governance and cross-border activities do not solely belong to nation-states and national governments. While the roots of the regional actors' involvement can be traced back to the postwar decades, globalization, transnationalism, regionalization, and new types of public-private partnerships have paved the way for the strengthened presence of a wide range of actors including subnational governments (SNG) and their alliances of various forms, NGOs, and epistemic communities. Besides being directly engaged in interaction with international partners (both governments and non-state actors), these actors can also influence the planning and implementation of national policies.

While delivering services and functions delegated to them by the central governments, Arctic SNGs can propose and promote their own policy initiatives through various formal and informal channels. The international activities of SNGs are often analyzed through concepts such as multi-level governance (focusing on power vertically among many levels of government and horizontally across multiple quasi- or nongovernmental organizations); the 'two-level game' (referring to the negotiation processes at the international and domestic levels demonstrating the interconnectedness of foreign policy with domestic approval); and paradiplomacy (referring to subnational governments' and non-state actors' activities in international affairs). The paradiplomacy research has traditionally focused on causes, motives, layers, and consequences of SNGs' international affairs, the institutional and legal framework for such activities, and the relationship between SNGs and central governments. While the main body of paradiplomacy literature has focused on the North American and European subnational governments, research concerning the Arctic has increased in recent years.

There are different types of international platforms supporting cross-border cooperation between the Arctic and northern regions and cities. Besides the Barents Euro-Arctic Council and the Barents Regional Council introduced in chapter 6, the Northern Forum (NF) can be identified as an important venue for inter-regional cooperation. NF was established in 1991 but its roots go back

to the 1970s. NF strives for sustainable development and improvement of the quality of life in the North. It has had a status as an observer in the Arctic Council since 1998. While the Russian invasion of Ukraine in February 2022 posed a major challenge to the organization (Finnish Lapland halted the implementation of its chairmanship program) of which the secretariat is in Yakutsk, Sakha Republic (Yakutia), this is not the first time of turbulence. At the end of the 2000s and at the beginning of 2010s many SNGs that had played crucial roles in the organization (including Alaska, the former host of the secretariat) left NF, making it a predominantly Russian organization. However, some of the non-Russian regions returned to NF and helped to revise its strategy.

Other multilateral cooperation schemes include the Nordic Council and the Nordic Council of Ministers, which bring the Nordic parliaments and governments together. Meanwhile, the representatives of northern regions of Norway, Finland and Sweden collaborate under the auspices of the North Calotte Committee and the Northern Sparsely Populated Areas Network. Many of these regions also belong to the CPMR Baltic Sea Commission. In the North American Arctic, interregional collaboration is supported by the Pacific Northwest Economic Region: Arctic Caucus, for example. The proposal to establish the Bering Pacific Arctic Council in 2019 is a newer initiative. However, the ongoing war will surely affect the implementation of the proposal.

Many Arctic cities have participated in the activities of the World Winter Cities Association of Mayors (the Northern Intercity Conference of Mayors until 2004), the Livable Winter Cities Association, and the Winter Cities Shake-Up. However, the greatest attention has recently been paid to the Arctic Mayors Forum (AMF) established in 2019. AMF was established because the national policies are often decided in the capitals of the Arctic countries, which are located outside the Arctic. AMF aims to have observer status in the Arctic Council to make the voices of the Arctic people better heard and understood within the Arctic Council. One of the major challenges even before the Russian invasion of Ukraine, was to include Russian Arctic cities in the AMF. Now the inclusion of mayors from the largest cities in the Arctic seems a distant possibility, calling into question some of the initial motivations and goals of the AMF.

Science and education have played a significant role in the post-Cold War Arctic cooperation, governance, and diplomacy. Science has been high on national Arctic agendas and science-based decisions and policies have been demanded by governments. At the same time, University of the Arctic (UArctic, network consisting of universities, colleges and other research and educational organizations) and International Arctic Science Committee (IASC, non-governmental organization founded by national scientific organizations both from Arctic and non-Arctic states) have developed as science-driven transnational actors facilitating international cooperation, supporting the work of the Arctic Council and its members, and helping to raise awareness concerning the Arctic issues.

While the role of private sector and indigenous actors and organizations are explained in detail in subsections of Chapters 6 and 7, it is necessary to emphasize the role of NGOs and other transnational actors in the field of Arctic environmental protection, for example. Whereas some of these actors are based on or solely focus on the Arctic, others (e.g., WWF and Greenpeace) are acting globally and covering the Arctic among many other regions.

Subnational entities, academic communities, and NGOs are envisioned as actors who can play pioneering roles in Arctic cooperation when it becomes possible again (in one form or another). If the ongoing war is prolonged, however, it is possible that the development of regional and transnational actors in Arctic governance will be asymmetrical, taking on very different identities and characteristics between Russia and the seven other Arctic states.

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Axworthy T S, S French and E Tsui (eds), *Lessons from the Arctic: The role of Regional Government in International Affairs* (Mosaic Press 2020)

6.5

The Arctic Economic Council

Kamrul Hossain

The Arctic Economic Council (AEC) is an independent organization representing the viewpoints of industry and business; it was established in 2014 under the auspices of the Arctic Council during the Canadian Chairship in 2013-2015. The AEC operates independently from the Arctic Council but maintains close cooperation with it. The Economic Council serves as a platform for representatives of business and industry from Arctic states, Indigenous peoples' organizations, and other stakeholders, enabling them to collaborate and address economic opportunities and challenges in the region. The AEC's primary objective is to promote responsible economic development that respects the unique social, cultural, and environmental aspects of the Arctic. Representatives from various Arctic businesses in sectors such as shipping, tourism, energy, mining, and telecommunications play an important role in the AEC's activities. Following are the key areas to which the AEC contributes:

Serving as a venue for economic cooperation: By bringing together representatives from both the public and private sectors, the AEC encourages dialogue, knowledge sharing, and collaboration on various commercial projects. This cooperative approach helps to ensure that economic activities in the Arctic are conducted in a manner that is both sustainable and mutually beneficial for all parties involved.

Promoting sustainable and responsible resource development: The Arctic region is rich in both non-living and living natural resources, including oil, gas, minerals, and fish. However, the extraction and utilization of these resources must be done responsibly to avoid irreparable damage to the fragile Arctic ecosystem. Here, the AEC plays a crucial role in promoting best practices for responsible resource development. It encourages companies to adopt sustainable extraction methods, adhere to strict environmental regulations, and engage in comprehensive environmental impact assessments before undertaking any projects. By promoting responsible resource development, the AEC aims to minimize negative ecological impacts while maximizing economic benefits for local communities.

Fostering sustainable Arctic tourism: Tourism has been growing rapidly in the Arctic, driven by the allure of the region's unique landscapes and wildlife, ice and snow, remote wilderness, aurora borealis, and extreme temperatures. Its pristine countryside and unique Indigenous cultures also attract increasing numbers of tourists every year. Yet, the increase in tourist activities also poses significant challenges, including overtourism, pollution, and disruption of local communities. The AEC recognizes the importance of sustainable tourism and works to develop guidelines and best practices for responsible tourism in the Arctic. By encouraging sustainable tourism practices, the AEC ensures that the economic benefits from tourism are balanced with the preservation of the Arctic's natural and cultural heritage.

Integrating voices from Indigenous communities: The AEC acknowledges the vital role of Indigenous communities in the sustainable development of the region. It actively engages with Indigenous peoples' organizations and seeks their participation in economic decision-making processes. By incorporating Indigenous knowledge, perspectives, and traditional practices, the AEC ensures that economic development respects and preserves Indigenous cultures and their land-based livelihood practices, and thereby complies with human rights norms applicable to Indigenous communities. Moreover, the AEC promotes capacity-building initiatives to enhance the economic opportunities and self-determination of Indigenous peoples in the Arctic.

Following is an overview of the key institutional components that underpin the AEC:

Members: The AEC consists of representatives from the business community operating across the Arctic region; the Council currently has over thirty-five member companies. The members are primarily from the Arctic states, but some are from non-Arctic states, examples being Greece, Germany and South Korea. There are also members from Indigenous organizations (Permanent Participants). The members of the Council are selected based on their expertise, economic interests, and commitment to sustainable development. There are four categories of membership: 1) legacy members, numbering three business representatives from each Arctic state and three representatives from each Permanent Participant organization, who have voting rights; 2) Permanent Participant organizations, which have voting rights; 3) Arctic

Partners, composed of business representatives from both Arctic and non-Arctic states; and 4) Permafrost Partners, who represent small- and medium-sized enterprises in the Arctic (SMEs).

Chair and Executive Committee: The AEC is led by a Chair appointed for a two-year term; the position rotates among the Arctic countries, mirroring the chairship of the Arctic Council. The Chair is responsible for providing leadership and representing the AEC externally. The Executive Committee consists of the Chair, Vice-Chair, and other appointed representatives, including a representative from among the Permanent Participants. The Committee oversees the organization's activities, sets priorities, makes strategic decisions, and guides the overall direction of the AEC.

Working Groups: The AEC establishes various working groups to address specific economic sectors or cross-cutting issues. These working groups are composed of experts and representatives from member organizations who collaborate to identify opportunities and challenges in their respective sectors. The Working Groups represent different industry clusters, such as energy, infrastructure, shipping and logistics, tourism, and telecommunications. The Working Groups may change over time depending on their mandate.

Annual General Meeting/Business Summit: The AEC holds an Annual General Meeting, also referred to as the annual Arctic Business Summit, where members gather to discuss key economic issues, share best practices, and establish priorities for the coming year. The event serves as a platform for networking, collaboration, and the exchange of knowledge and experiences among the members. The program features presentations, panel discussions, and workshops on various economic issues related to the Arctic.

Secretariat: The AEC has a Secretariat based in Tromsø, Norway, that supports its operations and facilitates communication among members and other stakeholders. The Secretariat is responsible for coordinating meetings, organizing events, maintaining the Council's website, and facilitating information exchange.

Engagement with the Arctic Council: As an independent organization, the AEC works closely with the Arctic Council to provide input and recommendations

on economic matters. The AEC participates in Arctic Council meetings, contributes to policy discussions, and collaborates on initiatives that promote sustainable economic development in the Arctic.

Since its establishment, the AEC has undertaken several initiatives to advance its objectives. It has organized business-to-business networking events, conducted research on key economic sectors in the Arctic, and provided policy recommendations to governments and international organizations. The AEC has gained recognition as an important platform for economic engagement in the Arctic. Its annual Arctic Business Summits, brings together business leaders, policymakers, and other stakeholders to discuss opportunities and challenges in the region. The AEC also maintains partnerships with other international organizations, such as the International Maritime Organization and the World Economic Forum, in order to build a resilient Arctic future. By prioritizing responsible economic development, the AEC paves the way for a prosperous and resilient Arctic for generations to come.

For more on this, read…

Erokhin V, T Gao, and X Zhang, *Handbook of Research on International Collaboration, Economic Development, and Sustainability in the Arctic* (IGI Global 2019) https://dx.doi.org/10.4018/978-1-5225-6954-1

CHAPTER 7: INDIGENOUS PEOPLES AS ACTORS IN ARCTIC LAW

7.1
Arctic Indigenous Peoples

Kamrul Hossain

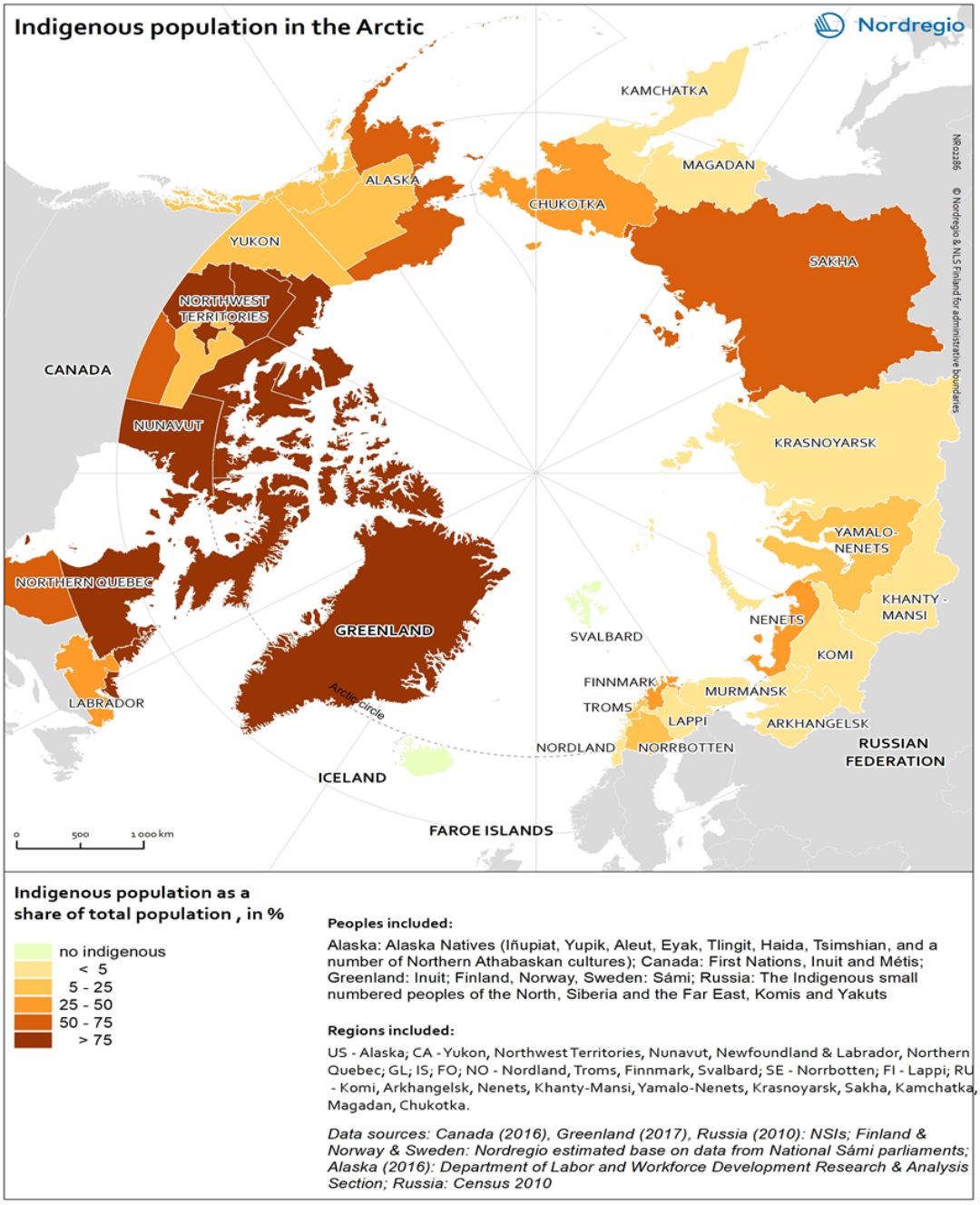
Indigenous peoples are considered the original inhabitants of the Arctic region. Although there is no commonly agreed definition of "Indigenous people", most literature cites the working definition put forward by Jose R. Martinez Cobo, who in the 1980s was the Special Rapporteur of the United Nations Sub-Commission on the Prevention of Discrimination and Protection of Minorities. Known as the Cobo definition, it describes Indigenous peoples as peoples that have lived in the territories they inhabit since time immemorial, long before they were invaded and colonized by settlers from other cultures or polities; they are distinct from the other sectors in the society at large in their way of life, culture, language and livelihood; at present, they form non-dominant groups of the population in the territory they inhabit, including in the Arctic, and they have been subject to assimilation, although they are determined to maintain their distinct identities by preserving, developing and transmitting their cultural identity to future generations.

Because of their pre-historic presence in the Arctic region and the colonization of the region over past centuries, Arctic Indigenous peoples have been gradually marginalized. Consequently, their existence as distinct groups is threatened because they generally lack control over the lands and resources had they traditionally owned, occupied and used as collective entitlements. Their continued existence depends on socio-culturally developed norms, known as Indigenous customary law, linked to the management of their lands and resources, as well as the practices established in their social institutions. While they share similar characteristics all across the world, Indigenous peoples are often identified by different terminologies in different countries. The commonly used terms are "first nations", "native peoples", "aboriginal populations", "tribal peoples", "numerically small ethnic minorities" and the like. However, in an international context, according to United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), all these groups are referred to as "Indigenous peoples".

The number of Indigenous people globally is approximately 370 million. In the Arctic, the number is about 400,000, representing 10 percent of the four million inhabitants of the region. They are distributed among seven of the eight Arctic countries: Canada, Denmark (Greenland), Finland, Norway, Russia, Sweden and the United States (Alaska). Iceland is the only Arctic state without Indigenous peoples. In the Arctic, Indigenous peoples represent minorities in all nations except Canada and Greenland. In Greenland, Indigenous populations represent a majority (88%) of the population. In the Canadian Arctic, over half of the population is Indigenous.

While there is no precise information on how long Indigenous peoples have inhabited the Arctic, estimates are that the first people arrived in the region as early as forty thousand years ago. There are approximately 40 groups of Indigenous peoples in the Arctic, most of which have a distinct language. In addition, they speak English, Russian and the Nordic languages (Danish, Finnish, Norwegian and Swedish). Some groups live transnationally in more than one country. For example, the Inuit people live in Canada, Denmark (Greenland), Russia and the United States. Similarly, the Sámi people live in northern Finland, Norway, Sweden and Russia's Kola peninsula in a cross-border ancestral region called Sápmi. Other Arctic Indigenous peoples include the Nenets, Khanty, Evenk and Chukchi in Russia; Aleut, Yupik and Inupiat in the US; Inuit representing the Inuvialuit in Canada; and Inuit representing the Kalaallit in Greenland.

The livelihoods of Arctic Indigenous peoples include fishing, hunting, herding (caribou in North America and reindeer in Fennoscandia and Russia) and the production of handicrafts. Today, many Indigenous peoples have adapted their traditional livelihoods to the modern economy. For example, the Sámi combine their traditional activities with work in small businesses in tourism. Many Sámi people of course engage in modern professions and are thus also a vital part of the Nordic countries' modern economy and society, where they may act as dedicated environmental advocates or climate activists.



The Arctic Indigenous peoples are engaged in numerous political undertakings through which they can make their voices heard and promote their involvement in decision-making processes. The most important political institution through which they can influence the future of the region is the Arctic Council, a high-level intergovernmental forum comprising the eight Arctic states. Indigenous peoples participate in the Arctic Council through six representative bodies from across the circumpolar Arctic known as *permanent participants*. The permanent participants sit with the eight Arctic states and are engaged in decision-making processes affecting the region at large as well as

their native lands. The Arctic Council is unique in its accommodating Indigenous peoples in an interstate political process in this capacity. Recognition and accommodation of Indigenous peoples' participation offer an example of how the Indigenous peoples can be politically empowered and can influence decisions that span the boundaries of the member nations.

Similar political processes are found in the Barents Euro-Arctic Council, a cooperative initiative among the Arctic states of Europe. Within the Council the Working Group of Indigenous Peoples (WGIP) plays a key political role alongside states and regional political actors. Additionally, Arctic Indigenous peoples have their own organizations, such as the Saami Council, which represents the Sámi of the three Fennoscandian countries and Northwest Russia, and the Inuit Circumpolar Council (ICC), which represents 180,000 Inuit from Canada, Denmark (Greenland), Russia and the United States (Alaska). Many Arctic Indigenous peoples also have their own institutions at the national level, an example being the Sámi parliaments established in each of the three Nordic countries with Sámi populations. The representatives in the parliaments take part in international treaty negotiations concerning issues that affect their constituents. The Nordic Sámi Convention (Draft) is an example of an international law-making process involving the Sámi people from three countries.

For more on this, read…

Sharapova A and Others, 'Indigenous Rights and Interests in a Changing Arctic Ocean: Canadian and Russian Experiences and Challenges' (2022) 13 Arctic Review on Law and Politics 286

Loginov V G, M N Ignatyeva, and I V Naumov, 'Reindeer Husbandry as A Basic Sector of The Traditional Economy of Indigenous Ethnic Groups: Present and Future' (2022) 14 Special Issue: Regional Economic Development in the Russian Arctic, North, and Siberia 187

Cepinskyte A, 'Security of Indigenous Peoples in Russia's Arctic Policy: Exposing the Oxymoron of State-Determined Self-Determination' [2019] Arctic Yearbook 27

7.2

Indigenous Peoples' Organization in the Arctic Legal Structure

Kamrul Hossain

Approximately 500,000 Indigenous individuals belonging to various ethnic groups and communities call the Arctic home. For thousands of years, and in close connection to their environment, Arctic Indigenous peoples have developed their cultures, languages, and ways of life, accumulating along the way vital knowledge on the region and the changes and shifts it has experienced. The Indigenous peoples are political actors in the Arctic governance system through their inclusion and participation in the Arctic Council – the principal pan-Arctic organization.

In the Arctic Council, states and Indigenous actors sit together to make decisions. Six Indigenous peoples' organizations from the circumpolar Arctic participate in the Arctic governance framework and enjoy the unique status of "Permanent Participant". At the Arctic Council, the Permanent Participants work closely with the Arctic nations and enjoy a full consultation right in negotiation and decision-making processes. They participate in all official meetings of the Council and make valuable contributions to its activities. They also contribute to all six of the Council's Working Groups.

Unlike state representatives, Permanent Participants sometimes represent Indigenous peoples who live in regions spanning national borders (the case of the Saami Council). At the same time, there may also be more than one Indigenous people in a single Arctic state represented through their respective Indigenous people's organizations (for example, RAIPON; see below).

The decisions made at the Arctic Council, including those taken at the biennial Ministerial Meeting, reflect the voices of the Permanent Participants. While they do not have a veto in decision-making, their consent is consistently acknowledged and observed. In this unique position, the Arctic Indigenous peoples are recognized as political actors in the inter-state governance framework. Their participation is a model of inclusive and multi-level regional governance in which decision-making reflects Indigenous peoples' valuable knowledge and community input. Significantly, Permanent Participants advocate for Arctic-wide transnational cooperation, not for the interests of any

single nation. They support multi-state actions in the spirit of political cooperation to achieve the common goal of protecting the Arctic environment and promoting sustainable development. Their efforts ultimately help to advance the lives of the four million inhabitants of the Arctic region.

The Permanent Participants are supported by the Indigenous Peoples' Secretariat, an established structure within the Arctic Council Secretariat. The six Permanent Participants are the following:

The Arctic Athabaskan Council (AAC), an international treaty organization, includes individuals of Athabaskan descent whose habitat spans vast territories across Alaska in the United States, and the Yukon and Northwest Territories in Canada. The AAC represents approximately 45,000 members in 76 communities in both the Arctic and sub-Arctic regions of Alaska and Canada. The aim of the AAC is primarily to "foster a greater understanding of the shared heritage of Athabaskan peoples of Arctic North America" and to recognize their mutual interests in and responsibilities for preserving and protecting the ecosystem and environment around them.

The Aleut International Association (AIA) is a transboundary association that represents people of Aleut descent living in the United States and Russia. The approximate Aleut population is over 15,000 persons. Traditionally called the Unangan people, the Aleut have inhabited the territories of the Aleutian Islands (Alaska, US) and the Commander Islands (Russia) for some 10,000 years. The AIA aims to address the environmental and cultural concerns of the Aleut people connected to the rich natural resources of the Bering Sea. The Association also seeks to collaborate with governments, scientists, and other regional and international forums to share the people's concerns over issues such as climate change and increased human activities, developments that pose a challenge to their physical and cultural survival.

The Gwich'in Council International (GCI) represents 9,000 individuals belonging to the Gwich'in family from the Northwest Territories, Yukon and Alaska. They are part of the larger family of Athabaskans, which includes the Slavey, Dogrib, Han and Tutchone peoples, but peoples have their own language and distinct way of life. The GCI's mission is to provide input to national and international policy organizations and put forward initiatives

furthering the Gwich'in way of life, culture, and overall survival as a distinct people.

The Inuit Circumpolar Council (ICC) is the largest Indigenous peoples' organization in the Arctic. Its membership is approximately 180,000 persons, representing the territories of four Arctic countries – Canada, Denmark (Greenland), Russia (Chukotka) and the United States (Alaska). The ICC is a platform that unites all Inuit in these countries to speak with one voice. Its primary goals are to address common challenges facing the Inuit people as a result of the transformation underway in the Arctic. The ICC has produced several declarations stating how the Inuit expect the Arctic to be governed and developed, for example the 2009 Circumpolar Inuit Declaration on Sovereignty in the Arctic. The ICC calls for the Arctic and its resources to be governed responsibly, paying due attention to sustainable development and to the benefiting the Inuit people.

The Russian Association of Indigenous Peoples of the North (RAIPON) is an association of small-numbered Indigenous peoples of the North of Russia, Siberia and Russia's Far East. RAIPON consists of 41 ethnic Indigenous groups including the Evenki, Tozhu, Tofa and Soyot. These groups are culturally distinct and diverse in terms of the livelihoods they engage in connected to Arctic natural resources. Their total population is approximately 270,000. RAIPON promotes Indigenous self-governance and helps its members to ensure that their circumstances accord with international human rights law as well as with Russian national regulations on environmental, social, economic, cultural, and educational issues.

The Saami Council is one of the oldest Indigenous peoples' organizations, representing approximately 80,000 Sámi people in Finland, Norway, Sweden and Russia (Kola peninsula). It aims at establishing solidarity among all the Sámi, and promoting Sámi interests and the people's national and international rights. It has gained recognition within the national legal frameworks as a legitimate proponent of Sámi cultural, political, economic and social rights. The Saami Council emphasizes the importance of traditional knowledge and Indigenous perspectives in understanding and responding to climate change, and advocates for integrating Indigenous knowledge systems into climate research, monitoring, and adaptation strategies.

For more on this, read…

Koivurova T and L Heinämäki, 'The participation of indigenous peoples in international norm-making in the Arctic' (2006) 42 Polar Record: a Journal of Arctic and Antarctic research 101 https://doi.org/10.1017/S0032247406005080

7.3

Role of Indigenous Knowledge in Arctic Governance

Kamrul Hossain & Giada Giacomini

Indigenous knowledge refers to the wisdom, practices, specific skills and techniques, social interactions, rituals, spirituality and worldview found among Indigenous peoples. This knowledge has been developed over long histories and with the experiences of interaction between Indigenous communities and their surrounding natural and social environment. The knowledge is often known as "traditional knowledge" despite its crucial value in providing insights into social-ecological processes and interactions that today serve to supplement science-based Western knowledge. Given the knowledge value of Indigenous peoples' sustainable land use behavior, natural resource practices and the functioning of ecological processes and biodiversity, a part of Indigenous knowledge is referred to as "Indigenous ecological knowledge" or "Traditional Ecological Knowledge" (TEK). In a nutshell it is a system of knowledge which, in most cases, is transmitted orally from generation to generation, yet is dynamic and has proven its validity.

The knowledge is context-specific, collective, holistic, and adaptive. Society transforms due to its internal and external stressors, and so its knowledge systems, including Indigenous knowledge, that adapt to such transformation. For Indigenous peoples, this knowledge informs decision-making about fundamental aspects of their livelihood. It provides the basis for locally managed forms of environmental governance and "sustainable development". However, the knowledge suffers from a lack of strict legal protection in the prevailing Intellectual Property Rights framework because of its subjective existence, as a result of which it lacks proper documentation that would identify the knowledge and its owner.

Yet the knowledge is well-recognized as a fundamental resource, especially in environmental governance. Recognition was first given in the 1992 Rio Declaration on Environment and Development. Principle 22 of the Declaration stressed the value of Indigenous knowledge in environmental decision-making for achieving sustainable development. The renovated interest in recognizing Indigenous knowledge is evident in the international legal framework, such as in the Convention on Biological Diversity (CBD). The

Preamble of the Convention and particularly Article 8(j) reflect such acknowledgement. State parties to the Convention are encouraged to respect, preserve and maintain the knowledge, innovations and practices developed by their Indigenous and other local communities for the conservation of biological diversity and sustainable use of the environment. The 2010 Nagoya Protocol on Access to Genetic Resources and Benefit Sharing under the CBD later undertook to operationalize the use of Indigenous knowledge, particularly that concerning the use of genetic resources associated with traditional knowledge. One aim of the Protocol is to create a system that will protect Indigenous knowledge from biopiracy, misappropriation and misuse.

The UN Declaration on the Rights of Indigenous Peoples (UNDRIP) – a universally agreed on international instrument – in its Preamble and Article 31 refer to Indigenous knowledge as an essential element not only for sustainable development but also for equitable development and proper management of the natural environment.

Indigenous knowledge plays an integral part in the fight against climate change. The climate change regime calls for integrating Indigenous knowledge in climate governance because of the deep interconnection between Indigenous peoples and the environment, and their profound respect for the planet Earth. Article 7(5) of the 2015 Paris Agreement stressed that adaptation actions to fight against the impacts of climate change should take advantage of the knowledge that Indigenous and other local communities possess. In this regard, an emphasis has been put on community-driven, participatory and transparent processes. Today, Indigenous peoples participate in climate negotiation processes through their representative organizations, such as the International Indigenous Peoples' Forum on Climate Change (IIPFCC), and thereby influence the international climate law-making process.

Instruments that have recognized Indigenous knowledge

The Rio Declaration on Environment and Development 1992	Principle 22
The Convention on Biological Diversity 1992	Preamble & Article 8(j)
The Nagoya Protocol on Access to Genetic Resources and Benefit Sharing 2010	
The UN Declaration on the Rights of Indigenous Peoples (UNDRIP) 2007	Preamble & Article 31
The Paris Agreement 2015	Article 7(5)

Indigenous knowledge forms an integral part of the Arctic governance framework. The peoples have inhabited the region for thousands of years, living in harmony with its pristine natural environment. They have experienced the changes that have affected the Arctic for many generations from time immemorial and have developed survival techniques allowing them to adapt. In their land- and nature-based livelihood practices, such as hunting, fishing, reindeer and caribou herding, Arctic Indigenous peoples have elaborated unique practices. These offer fundamental lessons to promote our understanding of the Arctic's ecological support systems, nature conservation and human-animal interactions in the specific Arctic context. The Indigenous peoples developed characteristic skills allowing them to be extremely resilient in the Arctic's harsh climatic conditions. However, because of the disproportionate impacts on the Arctic driven by climate change, the knowledge held by its Indigenous peoples lacks the predictability it once had. Nevertheless, their knowledge is crucial in Arctic-related legal and policy processes. Such processes are reflected in the Arctic's governance structure, such as in the Arctic Council.

The Arctic Council is the primary institution of the circumpolar Arctic states. The Council's structure includes representation from the Arctic's Indigenous peoples' organizations in the capacity of "permanent participants". The eight Arctic states, together with six permanent participants, form the main decision-making body of the Arctic Council. The permanent participants sit alongside the Arctic states at the same table at all levels of policy-making, including the Council's six working groups. The participatory processes ensure the inclusion of Indigenous knowledge in policy developments. Although the resolutions of the Arctic Council are considered "soft law", they provide explicit political obligations, at times translated into legal text, when Arctic states conclude a legally binding agreement, for example, the Arctic-specific search and rescue agreement of 2011. A similar structure is found in the European part of the Arctic, which brings together states and sub-regional bodies as collective entities, such as the Barents Euro-Arctic Council and Barents Regional Council, respectively. The Indigenous Peoples' Working Group was founded as an independent body rooted in this organizational structure. The Working Group plays influential participatory and consultation roles with Indigenous knowledge integrated in and contributing to all decision-making processes. The processes contribute to an improved natural

environment and socio-cultural and political standards, ensuring the quality of life for the over five million people of the Barents region of the Arctic.

For more on this, read…

Eerkes-Medrano L and H P Huntington, 'Untold Stories: Indigenous Knowledge Beyond the Changing Arctic Cryosphere' (2021) 3 Frontiers in Climate https://doi.org/10.3389/fclim.2021.675805

7.4
Climate Litigation and Arctic Indigenous Peoples

Giada Giacomini

As a result of the slow response of national law and governance to the pressing issues of climate change, activists and lawyers have increased efforts to use national and international judiciary systems to fill in the accountability gap left by the absence of enforcement instruments in climate regulations. With the terms "climate litigation" or "climate change litigation" scholars and practitioners define an emerging body of legal practice aimed to set case law precedents to further climate change mitigation and adaptation efforts from public and private institutions, such as governments and companies.

Climate change litigation encompasses cases before judicial and quasi-judicial bodies that entail material issues of climate change science, policy, or law. As of 31 May 2022, 2,002 cases from around the world had been identified and included in the Sabin Center's Climate Change Litigation databases.

Global climate litigation can be divided into two main categories: litigation aligned with climate objectives and litigation not aligned with climate objectives.

In the first category we can find those cases that aim to compel States or private entities towards respecting climate law and policy objectives. In this category we can find the famous case *Urgenda Foundation vs the Netherlands*, where a Dutch environmental group, the Urgenda Foundation, and 900 Dutch citizens acted against the government arguing for the need of more stringent actions to prevent global climate change. The court required the Dutch State to reduce greenhouse emissions to 25% below 1990 levels by 2020, as the government's pledge already in place to reduce emissions by 17% were insufficient to meet the Paris agreement's goal.

The second category consists of judicial and quasi-judicial cases where the aim is not to go against the implementation of measures to contrast climate change, but *how* such measures are being implemented. For example, the Fosen peninsula case in Norway (table 2) concerns the construction of a wind farm on the territory of Sami Indigenous peoples which negatively impacts their

right to culture protected by art. 27 of the International Covenant on Civil and Political Rights.

Table 1.

Human rights-based climate litigation	
Aligned with climate objectives	Not aligned with climate objectives
Compel States and private entities to comply with climate change obligations (adaptation, mitigation, procedural)	Contrast the implementation of climate change measures negatively impacting human rights

In climate litigation, human rights play a key role. In fact, climate change, through negative impacts such as flooding, heatwaves, droughts, desertification, extreme weather events and rising sea levels are jeopardizing many human rights such as the right to life, to food, housing, property and many others. Thus, the *human rights-based climate litigation* has emerged at the national and international level with the aim of making governments and private actors responsible for their lack of commitment into effectively combating climate change and its impacts. This surge is both a cause and an effect of the expanding international recognition of the close connection between human rights and climate change. In October 2021, the UN Human Rights Council passed a crucial, although non-binding resolution recognising the right to a healthy environment. In July 2022, the UN General Assembly adopted a resolution recognizing the right to a clean, healthy, and sustainable environment as a human right under the principles of international law. Finally, in September 2022 the UN Human Rights Committee delivered a ground-breaking decision on climate change impacts on human rights, finding that Australia's failure to adequately protect Indigenous Torres Strait Islanders against adverse impacts of climate change was a breach of the International Covenant on Civil and Political Rights.

Arctic Indigenous peoples are among the most vulnerable populations when it comes to climate change, and they have filed cases of climate change litigation before national and international jurisdictions. Climate change impacts in the Arctic imply an unprecedented challenge in adaptation and cultural survival for Arctic Indigenous peoples, and, in many cases, disappearance of their traditional ecological knowledge which is deeply intertwined to the environment.

Therefore, it is not surprising that Arctic Indigenous peoples are using human rights as a tool to obtain climate justice through States' accountability for the emissions of climate-altering substances. The table below summarized such climate litigation cases, proving an overview of Arctic Indigenous peoples' legal claims at the national and supranational level, and of the type of litigation.

Table 2.

Climate litigation cases involving Arctic Indigenous peoples			
	Case name	Type	Description
National jurisdiction	Sovereign Iñupiat for a Living Arctic v. Bureau of Land Management (2020)	Aligned	Challenges to approval of a development plan for major oil and gas development in the National Petroleum Reserve-Alaska.
	Resisting Environmental Destruction on Indigenous Lands v. EPA (2012)	Aligned	Challenge to two permits issued by EPA to Shell for offshore Arctic drilling operations.
	Supreme Court of Norway - HR-2021-1975-S, (case no. 20-143891SIV-HRET), (case no. 20-143892SIV-HRET) and (case no. 20-143893SIV-HRET) (2021)	Not aligned	Whether the construction of Storheia and Roan windfarms on Fosen peninsula amounts to a violation of the reindeer herders' right to enjoy their own culture under Article 27 of the International Covenant on Civil and Political Rights.
International jurisdiction	Petition to the Inter-American Commission on Human Rights Seeking Relief from Violations of the Rights of Arctic Athabaskan Peoples Resulting from Rapid Arctic Warming and Melting Caused by Emissions of Black Carbon by Canada (2013)	Aligned	A petition filed by Earthjustice on behalf of the Arctic Athabaskan Council. It alleges that Canada's insufficient regulations of black carbon emissions threaten the Athabaskan people's human rights.
	Petition to the Inter-American Commission on Human Rights Seeking Relief From Violations Resulting from Global Warming Caused By Acts and Omissions of the United States (2005)	Aligned	Sheila Watt-Cloutier, Chair of the Inuit Circumpolar Conference, filed a petition to the Inter-American Commission on Human Rights seeking relief from human rights violations resulting from the impacts of climate change caused by acts and omissions of the United States.

For more on this, read…

Savaresi A and J Setzer, 'Mapping the Whole of the Moon: An Analysis of the Role of Human Rights in Climate Litigation' [2021] SSRN Electronic Journal https://ssrn.com/abstract=3787963

CHAPTER 8: NON-ARCTIC ACTORS AND THE ARCTIC

8.1

Globalization of the Arctic: Non-Arctic Actors and Global Interests

Yuanyuan Ren

In an era of climate change, economic globalization, and technological innovation, the Arctic is no longer a cold, remote space at the top of the world, but a dynamic region that is full of development opportunities and new challenges. According to recent research, the Arctic has warmed nearly four times faster than the rest of the planet over the past forty years. The melting Arctic has been increasingly open to creeping jurisdictional claims of the Arctic states, economic activities, and outside players. In recent years, not only have the Arctic states updated their Arctic policies, but the interest of the rest of the international community in the Arctic has kept growing. Global interests in the Arctic are broad and various, ranging from scientific research, shipping, resource extraction, tourism to strategic ones. As China's 2018 Arctic Policy stated, the issues of climate change, environmental protection, scientific research, utilization of Arctic sea routes, resources exploration and exploitation, security and governance of the Arctic are vital to all countries and humanity.

Generally speaking, Arctic actors in Arctic governance include the eight Arctic states, Arctic Indigenous peoples, the governmental and non-governmental organizations (NGOs) that have a clear Arctic identity, such as the Arctic Council (AC) and the International Arctic Science Committee (IASC). By contrast, non-Arctic actors are those that do not have a clear Arctic identity, including non-Arctic states and political entities, inter-governmental organizations, forums, and NGOs that have a particular Arctic focus in their work. For example, International Maritime Organization (IMO) has a particular interest in search and rescue, pollution response and maritime safety, and protection of the marine environment in the Arctic, and was accepted as a non-Arctic Observer in the AC in 2019.

Among non-Arctic actors, some non-Arctic states and political entities, such as the European Union (EU) and major Asian countries, particularly do not wish to be left behind in the new Arctic arena. They have showed growing

interest in the Arctic and have played an active role in addressing the Arctic issues. For example, in June 2010, the Agreement to Prevent Unregulated Commercial Fishing on the High Seas of the Central Arctic Ocean (CAOF Agreement) was initiated by the five Arctic coastal states (Canada, Denmark, Norway, Russia, the United States). The CAOF Agreement bans unregulated fisheries in the high sea portion of the Central Arctic Ocean for sixteen years to allow time for scientists to study the fish and fish habitat in the region and the suitability of commercial fishing. From 2015 to 2017, five other major fishing countries and political entities (China, the EU, Iceland, Japan, and the Republic of Korea) also participated in the negotiations of the Agreement. The CAOF Agreement was signed by the ten states and political entities on 3 October 2018 and entered into force on 25 June 2021. Overall, the Arctic states, particularly the five Arctic coastal states, have attempted to legitimatize their stewardship responsibilities for the Arctic. The Arctic states expect non-Arctic actors to respect their sovereignty, sovereign rights, and jurisdiction in the region and to recognize the dominant role of the Arctic states in Arctic decision-making processes. At the same time, Arctic actors have adopted a constructive position regarding non-Arctic players' participation in Arctic governance. They hope that non-Arctic actors would make valuable contributions to Arctic governance and ensure the sustainable development of the Arctic.

The globalization of the Arctic can also be identified in its regional governance institutions. For example, the increasing global attention to the Arctic has whetted the interests of more non-Arctic actors in participating in the work of the Arctic Council (AC). The AC has been the preeminent high-level regional forum for Arctic cooperation since 1996. Nowadays, the AC has become an important meeting venue for both the Arctic and non-Arctic states, Arctic Indigenous peoples, and other relevant international organizations and NGOs to address common Arctic issues. To date, the Council has approved 13 non-Arctic states, 13 inter-governmental and interparliamentary organizations, 12 NGOs as Observers to its work. Nevertheless, the participation rights of non-Arctic Observers in the AC are still limited. For instance, Observers are encouraged to make their contributions primarily at the level of working groups (WGs) in the Council. However, the WGs do not provide an effective venue for policy dialogues regarding a range of politically sensitive issues now arising on the Arctic agenda. In recent years, some task forces (TFs) of the AC

have started serving as venues for making legally binding treaties and agreements regarding the Arctic. For example, the Agreement on Enhancing International Arctic Scientific Cooperation was negotiated through the work of the AC's Task Force of Enhancing Scientific Cooperation in the Arctic (2013-2017). The Agreement was adopted by the eight Arctic states in May 2017 and entered into force in May 2018. Although non-Arctic actors were able to negotiate some access to conduct scientific research in the Arctic in the process, only the eight Arctic states had the decision-making power.

Lastly, it is worth noting that different non-Arctic actors have received varied receptions in the Arctic. The approaches and strategies of non-Arctic actors towards Arctic affairs are also different. For example, while some non-Arctic EU member states emphasize their long history of contact with the Arctic, several Asian countries, such as China, Japan, the Republic of Korea, and Singapore, have positioned themselves as maritime states that are willing and able to make substantive contributions to Arctic scientific research as well as Arctic shipping.

In summary, as the Arctic changes rapidly, there is increasing justification for international collaboration in the region. Increasing global interests in the Arctic present both opportunities and challenges to the Arctic and its peoples. In this context, as argued by Akiho Shibata and others, Arctic law, especially Arctic international law, cannot be legitimately developed and effectively implemented without all relevant actors being involved. How to balance the interests of the Arctic states, Arctic peoples, as well as non-Arctic actors has become a critical issue in the development of Arctic legal orders.

For more on this, read…

Bloom E T, 'The Rising Importance of Non-Arctic States in the Arctic' (2022) 46(1)*The Wilson Quarterly* https://www.wilsonquarterly.com/quarterly/the-new-north/the-rising-importance-of-non-arctic-states-in-the-arctic

Finger, M and L Heininen (eds.) *The Global Arctic Handbook* (Springer 2019)

Shibata A and Others (eds.) *Emerging Legal Orders in the Arctic: The Role of Non-Arctic Actors.* (Routledge 2019)

8.2

The European Union and the Arctic

Adam Stępień & Andreas Raspotnik

The Arctic is a region in transformation. Facing multiple challenges driven by climate change, global resource demand, and shifting power relations, the circumpolar North also draws the attention of an international actor that has not necessarily always been perceived as an Arctic one: the European Union (EU). Contrary to such perceptions, the EU has proven to be an active participant to Arctic affairs. Over the past fifteen years, EU policymakers have developed a comprehensive approach to the complex Arctic social, economic, political and environmental landscape of the 21st century.

The EU is undoubtedly an actor in the Arctic, and has multiple good reasons for being present in the region and pursuing its interests. First of all, the EU has a tangible presence in the region in terms of geography, legal competence, and contribution to Arctic science. It also exercises influence due to policies and regulations both determining access to its single market as well as shaping its environmental footprint in the region. For decades, the EU has participated in different regional forums, such as the Arctic Council or the Barents Euro-Arctic Council. Three EU Member States are Arctic states: Denmark (on behalf of Greenland and Faroe Islands, which are themselves outside of the Union), Finland and Sweden. The northernmost regions of Finland and Sweden are subject to the EU's legislation, policies and benefit from EU funding programs. This influence further extends to Iceland and Norway (with the exception of Svalbard) through the European Economic Area Agreement, which applies the majority of the EU norms to these two Arctic states. EU programmes on research and innovation as well as regional development and cooperation formats (e.g., the Northern Dimension) further extend to the Barents region and North Atlantic basin. The European Investment Bank (EIB) is an important source of financing for Arctic projects. While Greenland is not part of the EU, the Union also maintains close relations with this self-governing territory, cooperating in areas such as education, health or fisheries, and is about to open an office in its capital, Nuuk. Additionally, the EU cooperates on Arctic issues with Canada and the United States. Since the 1990s, there had been vibrant cross-border cooperation with the regions in northwest Russia.

However, the EU's cooperation with Russia is on pause due to Russia's invasion of Ukraine.

As a major global economy, the EU also influences the Arctic via its shared responsibility for climate change, through pollution reaching the Arctic from Europe, as well as owing to the EU's demand for Arctic resources. Additionally, the EU influences the development of international norms that are of relevance for the Arctic. For instance, EU competences as regards maritime transport, environmental protection, or fisheries have made the Union an important actor in international negotiations and party to agreements and organizations on Arctic maritime navigation, marine biodiversity, or the future governance of the Central Arctic Ocean.

The EU and its various institutional actors – the European Commission, the European Parliament and the Council – have slowly but steadily developed a dedicated EU Arctic policy, set common positions and stressed the Union's Arctic credentials. Starting in 2008 with a first Communication on *the European Union and the Arctic region*, the main priorities have included: climate change, supporting Arctic cooperation, dialogue with Arctic Indigenous Peoples, and Arctic science. Over time, there had been increasing emphasis on sustainable economic development and Arctic innovation, especially the European Arctic. In the most recent policy statement from 2021, three broad thematic areas for the EU's Arctic engagement have been defined: 1) contributing to peaceful and constructive dialogue and cooperation, 2) addressing challenges related to climate change and environmental degradation, including the EU's climate action via the European Green Deal, and 3) supporting regional sustainable development and Indigenous Peoples' issues, particularly via the involvement of Arctic actors, rights- and stakeholders in EU policy-making.

The Arctic policy statements have relatively minor influence on general EU policies and initiatives that actually impact the situation in the Arctic (e.g. the EU's climate and energy policy, global biodiversity actions, transport and industrial policies, trade negotiations or EU-Russia or EU-Canada relations). However, these Arctic-focused statements are a clear sign of the EU's interest in being part of Arctic debates, cooperation and governance. Among the consequences of the EU's interest in the region are the ongoing efforts to better engage Arctic actors, rightsholders and stakeholders in EU policymaking.

Currently, one platform for such engagement are the annually organized EU Arctic Forum and Indigenous Peoples Dialogue meetings. The EU has been also trying to better coordinate its Arctic activities, facilitating collaboration among its different funding programmes, as well as encouraging research projects supported by EU funding to work together and exchange information. EU policymakers have at times been accused of not understanding regional sensitivities, especially in the early years of the EU-Arctic policy-making, and following the adoption of a ban on placing seal products on the EU market in 2009. The so-called "seal ban" led to the EU being denied a formal observer status in the Arctic Council mainly due to Canadian opposition (although the EU acts within this forum as an observer in principle, based on the interim decision taken in Kiruna in 2013). There has also been concern among some Arctic residents that the EU is primarily interested in accessing Arctic resources – in the 2000s, hydrocarbons; and in the 2020s, critical minerals and renewable energy. However, while some of these concerns remain, the position of the EU as an Arctic actor currently appears unambiguous and broadly accepted.

For more on this, read…

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8.3

China and the Arctic

Sanna Kopra & Yuanyuan Ren

Over the past three decades, the People's Republic of China (hereinafter China) has become increasingly interested in participating in Arctic affairs and utilizing new economic opportunities offered by melting Arctic sea ice. Generally, China's interests in the Arctic can be divided into four themes: scientific research, natural resources, shipping, and regional governance. First, Chinese scientists have conducted polar research onboard the icebreaker *Xuelong* since the early 1990s. In 2004, China established its first Arctic research station, Yellow River (*Huang He*) station, in Svalbard. In 2019, China's first home-built research icebreaker *Xuelong II* started to operate.

Overall, China has actively partaken in Arctic science diplomacy. Second, Chinese investors are interested in lucrative Arctic energy and other natural resources. For instance, Chinese companies have involved in Novatek's Yamal liquid natural gas (LNG) and Arctic LNG 2 projects in Siberia. Third, the Arctic shipping lines are of interest to China because they make it possible to transport LNG and other natural resources from the North to China. In addition, they offer shorter and geopolitically safer access to the European and Northern American markets compared to the traditional routes through the Malacca Strait and the Suez Canal. In 2017, China renamed Arctic shipping lanes "the Polar Silk Road" and added it to the Belt and Road Initiative. Finally, as a rising global power, China seeks to partake in various international decision-making processes, and Arctic diplomacy makes no exception.

In January 2018, China released its first Arctic Policy White Paper (hereinafter Policy), detailing the country's main principles and goals of its participation in the Arctic. According to the Policy, China's key policy goals in the region are to understand, protect, develop, and participate in the governance of the Arctic, to safeguard the common interests of the international community in the Arctic, and to promote sustainable development of the Arctic. To better understand the Arctic, China has been actively promoting scientific research and expedition in the Arctic. To seize the opportunities in the Arctic development, China has been developing increasing economic ties with the Arctic states. At the same time, China is committed to respecting the cultures

and historical traditions of the Indigenous peoples in the Arctic. Moreover, China calls for the Arctic states to balance their Arctic interests with the common interests of the international community and to build a "community with a shared future for mankind" together in the Arctic. Although China does not view the whole Arctic as a "global commons," it emphasizes that certain areas of the Arctic Ocean form part of the high seas and the Area. For instance, from 2015 to 2017, China actively participated in all the negotiations of the Agreement to Prevent Unregulated Commercial Fishing on the High Seas of the Central Arctic Ocean (hereinafter Agreement), which bans unregulated fisheries in the high sea portion of the Central Arctic Ocean for sixteen years. On 25 June 2021, the Agreement entered into force and China is a party to the Agreement.

To achieve its Arctic goals, China particularly underscores the importance of international cooperation in both formal and informal forums to tackle Arctic issues. In May 2013, China was accepted as a full Observer of the Arctic Council. To date, however, China's contribution to the Council's work has been relatively limited. China has also actively taken part in other international platforms discussing Arctic affairs, such as the annual Arctic Circle Assembly in Reykjavik. In May 2019, China organized the first Arctic Circle China Forum in Shanghai. In addition, China highlights the role of international law in Arctic governance and invokes the broad framework of international law to support its rights and participation in Arctic Governance. Specifically, China views that there is no single comprehensive treaty for all Arctic affairs; the UN Charter, the United Nations Convention on the Law of the Sea (UNCLOS), the Spitsbergen Treaty, other treaties on climate change and shipping, and general international law all govern the Arctic issues. For example, as an important member, China participated in the development of the International Code for Ships Operating in Polar Waters (Polar Code) under the auspices of the International Maritime Organization (IMO).

In practice, China has acted very carefully in the Arctic to avoid creating fear of an assertive China. For instance, China chooses not to take a clear side on any territorial and maritime disputes in the Arctic, including Russia's controversial regulation of the Northern Sea Route (NSR) and Canada's control of the Northwest Passage (NWP). Beijing has repeatedly expressed its recognition of the sovereignty, sovereign rights, and jurisdiction of the Arctic

states and highlighted reciprocal respect as the key basis for China's participation in the Arctic. On the other hand, China also highlights that non-Arctic states enjoy the rights and freedoms of scientific research, navigation, overflight, fishing, laying of submarine cables and pipelines, as well as resource exploration and exploitation in various areas in the Arctic Ocean, pursuant to treaties such as UNCLOS and general international law.

Lastly, as China is the biggest carbon dioxide emitter in the world, it plays a crucial role in international efforts to mitigate climate change. China is a party to the Paris Agreement. In 2020, it pledged to reach carbon neutrality by 2060. For the time being, however, China's carbon emissions continue to increase, and per capita emissions have tripled over the past decade. In the Arctic context, China has not introduced additional efforts to mitigate climate change, nor has it taken part in the Arctic Council's work on reducing black carbon and methane emissions. Looking forward, China should engage more closely in international efforts to reduce short-lived climate pollutants via the Arctic Council and the Climate and Clean Air Coalition. It would also be important to assess the Arctic footprint of China's domestic emissions of pollutants, such as mercury and persistent organic pollutants, prone to long-range transport into the High North.

In sum, China portrays itself as a "responsible" and "constructive" player in the Arctic. China's influence in the Arctic will likely continue to grow in the coming years.

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8.4

India and the Arctic

Krittika Singh & Kamrul Hossain

With an emerging economy, India gradually becomes an influential political actor on the global stage. The impacts of climate change in the Arctic, and its increasing role in the global geopolitical dynamic, make the region unique. India, along with other non-Arctic states, engages itself in the Arctic, primarily driven by an interest in polar research, but also climate change-induced developments in economic and commercial frontiers. On March 17, 2022, India released its first-ever Arctic policy, although India's presence in the Arctic is not entirely new. It has been a party to the Svalbard Treaty since 1920 – Svalbard is an archipelago placed under Norwegian sovereignty in the Arctic between mainland Norway and the North Pole – the Treaty ensures equal rights (or an equitable regime) for use and access to the archipelago and its territorial waters for parties, subject to Norwegian sovereignty.

However, during the last decades, India has tightened its efforts for robust Arctic engagement. In 2007, India launched its first scientific expedition in the Arctic. In 2008, India established its permanent International Arctic research base 'Himadri' at Ny-Ålesund in Svalbard. As a member of the International Arctic Science Committee, India increasingly plays a role in the Arctic scientific community. With its inclusion in the Arctic Council as an Observer in 2013, India has deepened its ties with Arctic States and stakeholders. Additionally, India justifies its Arctic link through its location in the cryosphere in the Himalayan region, the so-called Third Pole, which, too, suffers from threats from climate change similar to the Arctic, such as melting glaciers and the resulting socio-cultural and environmental impacts.

India's Arctic Policy has a set of missions, which underlines the following: enhancing cooperation in the Arctic region, harmonizing research on the polar region with emphasis on the third pole, advancing knowledge on the Arctic both nationally and globally, and contributing to efforts in combating climate change and the protection of the environment. To meet these goals, the policy identifies seven specific pillars around which India's Arctic policy is shaped:

Science and Research
Climate and Environmental Protection
Economic and Human Development
Transportation and Connectivity
Governance and International Cooperation
National Capacity-building
Geopolitics and Arctic affairs

India emphasized an 'interlinked polar programme' combining the three Poles– the Arctic, Antarctic and the Third Pole. India finds the linkages between the glaciers in the three Poles crucial. In this regard, India intends to bring its experiences drawn from the glacier-dominated Third Polar region to the Arctic. By conducting scientific expeditions and scientific research, especially relating to climate change, India seeks to harmonize its research on polar regions, including the Arctic. To further strengthen research expeditions, India stresses the urgent need for ice-class Polar research vessels for itself, which it intends to build through its domestic capability.

Over the years, India has developed expertise in operating a successful satellite program, which it intends to employ to promote a better understanding of the Arctic. For example, by utilizing its satellite operations, India can offer reliable scientific information to the Arctic on earth-changing ecosystems, ice mass, sea-level rise, etc., that can contribute to emergency preparedness, hydrographic surveys, environmental monitoring and surveillance. India's science promotion efforts are supplemented by its commitment to creating an institutional setup nationally with an available funding mechanism for Arctic research.

Although India's Arctic policy primarily focuses on scientific research, it also addresses other areas of interest, including economic and strategic interests and international cooperation in Arctic affairs. While India commits to moving towards renewable energy resources as its long-term goal, in the short- and medium-term scenario, its dependence on hydrocarbons is crucial – for which the Arctic remains important. India commits to work with Arctic states and actors towards sustainable resource extraction, for example, through responsible business practices complementing the spirit of the UN SDGs. India highlights the need to balance its energy needs with concerns arising from

climate change and also Arctic geopolitics. As such, India encourages its private sector to work closely with the Arctic Economic Council (EEC) to promote sustainable business relationships with Arctic stakeholders. India also seeks to collaborate towards building communication channels and digital connectivity in the remote Arctic areas, which can help provide support in education, food supply and health care amongst others.

India places itself as a responsible actor in the international legal framework that applies to the Arctic. India is a party to most international regulatory instruments within the Arctic governance framework, such as the United Nations Convention on the Law of the Sea (UNCLOS), the International Maritime Organization (IMO) and its MARPOL and SOLAS treaties, the United Nations Framework Convention on Climate Change (UNFCCC), the Convention on Biological Diversity (CBD), the Convention on Migratory Species (CMS) and all major international human rights instruments, including the ICCPR, ICESCR and UNDRIP.

At the regional level, as an Observer to the Arctic Council, India aims to cooperate closely with various working groups of the Council, and with Arctic states and stakeholders, particularly in the area of marine environmental protection, environmental emergencies, search and rescue, Arctic biodiversity conservation, etc. India's increased participation in the AC and constructive role in internal Arctic affairs and decision making would be a significant milestone for its Arctic engagement. The Arctic Council conceives an influential role for the Arctic Indigenous peoples in its decision-making, to which India is respectful. Being mindful of this, and also as home to a large number of Indigenous communities, India can build a bridge between the Indigenous communities of the Arctic and the Third Pole to exchange traditional knowledge held by them, which may contribute to developing an alternative knowledge system to understand better the Arctic and Polar regions. In sum, India's Arctic engagement creates a platform not only to build a bridge between the Arctic and the Third Pole, but also to bring mutual benefits for both regions.

For more on this, read…

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https://www.moes.gov.in/sites/default/files/2022-03/compressed-SINGLE-PAGE-ENGLISH.pdf

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https://www.arcticcircle.org/third-pole-himalaya-the-process

8.5

Non-Arctic European States and the Arctic

By Jose Miguel Roncero-Martin

The European Arctic is shared by six states: Denmark (through Greenland and the Faroe Islands), Finland, Iceland, Norway, Russia and Sweden. Yet the connections between Europe at large and the Arctic are not limited to these six states, and countries like Austria, France, Germany, Italy, the Netherlands, Spain and the United Kingdom have longstanding historical and economic ties with the Arctic.

From the fifteenth century onwards, European explorers started discovering the northern parts of the continent with a clear purpose and strategic interest. Although the list of explorers is too long to quote, we can mention Willem Barentsz, a Dutch navigator who explored Arctic waters in the sixteenth century, after whom the Barents Sea is named. Barentsz also discovered (and named) the Spitzbergen archipelago (today rebaptized as Svalbard, although the main island retains the Dutch name). A less known example is the Austro-Hungarian nineteenth century expedition, led by Karl Weyprecht and Julius Payer, who discovered and named the Franz Josef Land archipelago, in honor of their Emperor. European explorers also ventured into the North American Arctic. A famous expedition was that of Sir John Franklin, a British Navy officer who in 1845 attempted to cross, unsuccessfully, the Northwest Passage with the ships *Terror* and *Erebus*. These expeditions often followed the footsteps of anonymous traders, fishermen or whalers, who had been visiting the region for centuries. In some cases, these visits dismayed local populations, who disliked the competition on sea and occasionally rowdy behavior of the vessels' crew. A remnant of these times is a curious Icelandic law, passed in 1615 and only abolished in 2015, which allowed locals to kill Basque people on sight – a now gone relict of a time when European whalers roamed Icelandic waters and, sometimes, also settlements.

The interest of European non-Arctic states did not end with geographic explorations or trade. The pursuit of scientific knowledge and collaboration in the Arctic was formalized through the (First) International Polar Year, which took place between 1882 and 1883. Initially promoted by Austrian and German scientists and explorers, the International Polar Year encouraged Arctic and

Antarctic scientific collaboration between the Arctic states as well as Austria-Hungary, France, Germany, the Netherlands, and the United Kingdom. Scientific interest in the Arctic has not decreased with time, and many European non-Arctic states participated in all subsequent International Polar Years, while conducting strong Arctic scientific programs.

Europe dominated international geopolitics for centuries, and that included the Arctic as well. As an example, the 1920 Spitsbergen Treaty (today known as Svalbard Treaty), which granted Norway sovereignty over the archipelago, was signed in Paris in connection with the peace negotiations following the Great War (1914-1918). Svalbard, hence, became part of the European order that followed that war. Years later, Nazi Germany used the Norwegian Arctic as a base for submarine warfare. And during the Cold War, the Arctic became part of the larger ideological confrontation between NATO and the Soviet Union. For Western European countries, the Arctic was a possible gateway from where the Soviet Northern fleet with its nuclear submarine capacities (which was and remains stationed in Murmansk, today as part of Russia's Navy) could reach Europe.

European non-Arctic states are also actively involved in Arctic affairs and cooperation. At the Arctic Council, which was founded in 1996, 8 out of 13 non-Arctic states observers are European (France, Germany, Italy, the Netherlands, Poland, Spain, Switzerland and the United Kingdom). In fact, the first state observers in the Arctic Council, accepted in 1998, were all European (Germany, the Netherlands, Poland and the United Kingdom). These European observers contribute to the objectives of the Arctic Council, participating in its Working Groups and projects and providing essential contributions. Additional European states, namely Ireland, Czechia and Estonia, and the European Union, have requested observer status at the Arctic Council.

Many European non-Arctic states have also published comprehensive policy or strategy documents regarding the Arctic. The breadth and complexity of each document varies from country to country, with some having published very recent policies or strategies, such as the United Kingdom (2023) or France (2022), and some with older texts, including the Netherlands (2021), Germany (2019), Italy (2016), or Spain (2016). Some of these countries, for instance

France, the Netherlands, or Spain, have polar approaches covering both the Arctic and Antarctica. The EU also has an Arctic policy, which was published in 2021 (see thematic article in this volume). These policies and strategies often pivot around scientific research, with a focus on understanding climate change and its impacts. They also cover trade and sustainable development, shipping routes and, more recently, local and Indigenous matters. Traditional security matters, that driven by the survival of the state and often linked to military matters, are also important for some European non-Arctic states, which is exemplified by the United Kingdom's 2022 Arctic defense strategy (a standalone document).

It is also worth noting that trade between European non-Arctic states and the Arctic is fluid, although most exchanges take place with the European Arctic. Here, and bearing in mind national and regional differences, European non-Arctic states are or have been major importers of Arctic products, including fish, minerals and hydrocarbons. These countries also export food products, medicines, machinery, or vehicles, just to name a few commodities. Tourists visiting Arctic areas, in particular the European Arctic, also come in great numbers from European countries. In essence, there is a great exchange of products and services between the Arctic, in particular the European Arctic, and European non-Arctic states.

European non-Arctic states have multiple interests in the Arctic, including scientific, commercial, strategic, or security. The European Arctic is, nonetheless, part of the European neighborhood, and has shaped and continues shaping European history, the same way Europe has shaped and continues shaping Arctic history.

For more on this, read…

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8.6

South Korea and the Arctic[1]

Hyunkyo SEO

The Republic of Korea's interest in the Arctic has started with scientific research. Korea's Arctic activities began in 1999 when two Korean scientists from the Korea Ocean Research Institute (KORDI, predecessor of the Korea Institute of Ocean Science and Technology), to which the Korea Polar Research Institute (KOPRI) belonged, participated in an Arctic Ocean expedition together with a Chinese ice-breaking research vessel, MV 'Xue Long'. In 2002, with the opening of the Arctic Dasan Research Station in Ny-Alesund, Norwegian Arctic, S.Korea became capable of performing independent research in the Arctic as well. And since the icebreaking research vessel 'Araon' was built in 2009, the country has played a role as an axis of Arctic Ocean research in the international community by carrying out field research in the Arctic Ocean every summer season.

Based on the research achievements from the Arctic research infrastructure, S.Korea applied for an observer status of the Arctic Council in 2008 and became an ad-hoc observer country in the same year. In 2013, it was granted formal observer status at the Ministerial Meeting of the Arctic Council held in Kiruna, Sweden. In December of the same year, the Ministry of Oceans and Fisheries (MOF) established the 1st pan-governmental Masterplan for Arctic Policy" as a follow-up measure to obtaining formal observer status which can be called the first Arctic policy of S. Korea. And five years later, in 2018, the 2nd Masterplan for Promotion of Arctic Activities' (2018-2022) was announced. Through the establishment of these two masterplans, Korea formed a three hierarchical structure of Arctic policy: Vision, Policy goals, and Strategic Plans.

Firstly, the Korean government established the vision as a leading country in Arctic activities, and it made 3 major policy goals: 'Strengthening international cooperation', 'Strengthening scientific research', 'Economic/business partnership'. Followed by these goals, 4 subordinated strategic plans (Four pillars) were built to establish and perform specific tasks: 'Strengthening international cooperation', 'Sustainable economic/business partnership',

[1] This paper was written with support from the project (PE 23140 & PM 23030) of the Korea Polar Research Institute.

‘Encouraging scientific research’, and ‘Strengthening national capacity-building’. Considering these policy framework, S.Korea's priorities in Arctic policy could be summarized as ‘international cooperation’, ‘scientific research’, and ‘economic partnership’.

Subsequently, the Act on the Promotion of Polar Activities, initiated by MOF, was enacted in 2021, providing an integrated legal basis for systematic support of Korea's Antarctic and Arctic activities for the first time in 2021. And in November of the same year, MOF announced ‘the Arctic Activity Strategy 2050’ which orientates the country’s future policy direction in the long term. In November 2022, MOF established and announced the statutory basic plan called the 1st Masterplan for Polar Activity Promotion of Korea (2023-2027) based on Article 6 of the act on the Promotion of Polar Activities. This Masterplan is the basic plan that integrates the existing non-statutory ‘Masterplan for Arctic Policy’ and ‘A Basic Plan for promotion of research activities in Antarctica’ in accordance with ‘the Act on Activities in the Antarctic Area and the protection of Antarctic Environment’ enacted in 2004 in Korea. In particular, from the perspective of the Masterplan for Arctic Policy, it means a transition from the existing non-statutory plan to a legal-based plan that has secured driving-force based on the law.

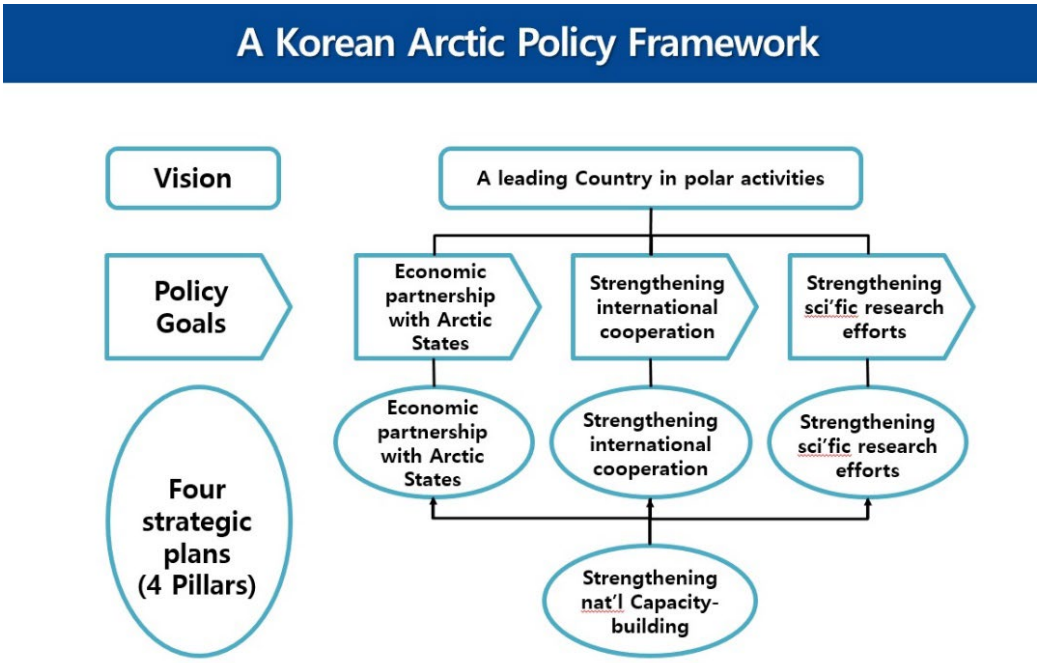
The 1st Masterplan for Polar Activity Promotion (2023-2027) also presents the vision of being a leading country in polar Activities, inheriting the vision of the existing Masterplan for Arctic Policy. And in terms of policy goal, ‘Strengthening Arctic science research’ such as scientific monitoring an unexplored Arctic area, addressing to climate change issues, and ‘Stimulating Arctic business activities’ like the technology development & the Korean industry’s participation in Arctic business are constituting high level policy goals.

And at the lowest level of 5 strategic plans were also presented as contents of ‘Stronger building network of domestic collaboration and foreign cooperation’ respectively Establishing the Arctic industrial foundation for contributing to the national economy, ‘Strengthening scientific research’ including addressing climate change’, ‘Scientific exploration in unexplored area of the Arctic’ (including the Antarctic), and Capacity-building covering the co-use of research infrastructure, training of early-career scientists, and public

participation in Arctic activities, which were composed of detailed action-plans and relevant projects and programs, etc.

If this masterplan is successfully implemented, Korea will complete the construction of next-generation icebreaking research vessels in addition to existing Araon in 2027, becoming a leading country in the polar marine research with two icebreaking research vessels. In addition, by Arctic sea-ice monitoring through the development and operation of micro satellites, S.Korea will play a major role in Arctic climate change issues in global community. And, following the existing icebreaking LNG tankers, S.Korea will continue its status as a global shipbuilding powerhouse in the world through creating new Arctic industries such as securing eco-friendly icebreaking container ship technology. S.Korea, as the country with world's 10th largest economy, will actively participate in international cooperation activities to enhance its national status as a leading country that actively contributes to addressing global Arctic issues.

Figure 1: A Korean Arctic Policy Framework



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CHAPTER 9: THE ARCTIC INFRASTRUCTURE AND REGULATORY NEEDS

9.1
Innovative Industries and the Future Arctic Economy

Stefan Kirchner and Juha Saunavaara

Starting from reindeer herding, fishing, trade in furs, and whale hunting, for example, the Arctic trade and industry has a long history. The Arctic also has great potential for new economic development. Its real worth is not limited to the natural resources but is to be found in the natural environment and the people who live in the circumpolar North. Yet, the Arctic and nearby northern areas have often been seen as a resource base where raw materials are extracted from, and where products with a low degree of processing are shipped out. These activities often conflict with other land uses, for example the traditional livelihoods of indigenous communities. The lion's share of economic benefits from these activities will often flow out of the Arctic. While local communities face pollution, health risks, and the loss of traditional livelihoods, the wealth generated in their homelands largely ends up elsewhere. Many communities in the Arctic depend on a limited number of income streams, for example mining or tourism. In addition to a low population density and limited infrastructures, the lack of economic opportunities creates pressure for residents of Arctic communities, many of which face demographic challenges.

While traditional livelihoods continue to remain relevant, their iconic status does not mean that these activities would be economically dominant. Many Arctic populated areas are modern and urbanized, offering economic opportunities. Among the key challenges are local access to higher education and a limited availability of skilled workers. Furthermore, the traditional livelihoods and industrial production that have played a culturally important role in the area for a long time are not static. The Arctic is not a museum. Also, traditional livelihoods are constantly evolving and updating their processes. At least in the Nordic Arctic, reindeer herders utilize not only snowmobiles but also GPS technology, drones and even helicopters.

Arctic tourism has suffered from the impact of the COVID-19 pandemic, from increasing inflation, and in specific areas where Russian represented a high

percentage of tourists, from the consequences of Russia's invasion of Ukraine. While recent years have thus highlighted the risks related to dependency on industry sensitive to economic fluctuation, the rapid post-pandemic recovery hints that the growth witnessed until the end of 2019 may return. The development of the field that already has decades if not centuries long history in many Arctic destinations has been based on new types of products, services, and experiences (ranging from the commercialization of Aurora Borealis to large-scale cruise shipping in the Arctic) as well as on the emergence of new markets (increased number of tourists from China, for example), and improved infrastructures and accessibility (new routes and investments in airports, hotel capacity). Yet, the increased number of visitors and new destinations have brought forth challenges related to land use, environmental degradation, mass tourism and, for example, authenticity, especially in cases where tourism actors make references to or utilize local indigenous cultures.

The Arctic is a geographically vast and socially and economically heterogenous area. Therefore, the industries located in the Arctic sometimes represents different extremes. While northern Sweden is the home of the most automatized mining processes in the world and globally known for energy efficient and low-carbon steel-making, elsewhere in the Arctic, in particular in the Russian Arctic, extractive and metal industries have difficulties in meeting international environmental standards. Resource extraction contributes to climate change. Climate change makes parts of the Arctic more accessible (although melting permafrost directly impacts Arctic infrastructures), thus facilitating more extractive activities. Measures to combat climate change, for example, the increased reliance on electric vehicles, increase demand for raw materials that may be found in the Arctic, too.

Both tourism and the transport of extracted raw materials and hydrocarbons, but also the need to supply remote communities, for example in Greenland, highlight the relevance of the maritime and aviation sectors. Environmental pollution from ships and aircraft remains a challenge. Efforts are currently underway both in Canada and in Northern Europe to establish opportunities for electric short-distance aircraft that could be powered by renewable energy and that could improve connections between Arctic communities. The Arctic thus have many roles to play in the green transformation ranging from

renewable energy production and mining for required materials to hydrogen and ammonia distraction.

Some Arctic countries are forerunners in digitalization. Besides the availability of public and private digital services and relatively good access to broadband in the Nordics, for example, the role that Arctic region could play in the global digital transformation has recently attracted attention. The northward shift of the data center industry (toward the cold climate and cheap electricity), started in North America, is now mirrored in the European Arctic. Meanwhile, there are also projects envisioning trans-Arctic submarine cables that could decrease network latency and bring robustness to global cable network, and Low Earth Orbiting satellite projects promising fast internet even to remote Arctic communities. In addition, the space industry is gaining importance in parts of the Arctic.

Another aspect of Arctic economies, that currently remains a work in progress, is the transition to a circular economy which provides opportunities to create more value locally. Local resources can be used more completely, potentially resulting in additional income. This transition can play an important role for the sustainable development of the region. However, the utilization of industrial size streams is often feasible only if the source and the user are in proximity. Therefore, long distance typical for the Arctic may cause challenges.

The future of sustainable development in the Arctic is connected to the involvement of local communities and regional actors. Local stakeholders, including indigenous communities, will have to be heard and land-use conflicts will have to be resolved in fair manners, based on the rule of law.

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9.2

Infrastructural Developments in the Arctic

Juha Saunavaara & Stefan Kirchner

The Arctic is a vast, sparsely populated area, with unique geophysical conditions. Historically, it has always been, and continues to be, a challenging environment for infrastructure development both technically and economically. Infrastructure development has often been delayed - or it has never taken place. Technological solutions implemented in the Arctic may have differed from the southern areas, while, due to its characteristics, the Arctic has also been an early adopter of new technologies in some fields such as early forms wireless communication.

Much like everywhere else, infrastructural development in the Arctic divides opinions. For example, central governments (in different times and places) have been criticized for not investing enough in infrastructure development or for promoting infrastructure that (some) locals do not want. Various stakeholders have different views and often the needs and preferences of different industries and sources of livelihoods collide. While the desire for benefits connected to the infrastructure may be shared (e.g., green energy based on renewable energy production), disagreement concerning the location, size, costs, and environmental impact of the infrastructure, for example, can be insurmountable.

Infrastructure development in the Arctic has often been tightly connected to the development of industrial activities that utilize local resources, such as mining, forestry, fishery and more recently, tourism. Besides the infrastructure and facilities that are directly related to the production and service provision (for instance, mines or factories), there is indirect infrastructure needed to enable the industrial activity, such as roads, railways or telecommunications.

The traditional reasoning behind the development of transport and telecommunications infrastructure in the Arctic has been to enable the flow of people, goods, and information: a) between the Arctic communities and b) between the Arctic and national/international centers of administration, production, and consumption. However, recent decades have witnessed unforeseen interest in developing the Arctic also a gateway/transition region

between the global metropolises. Climate change is opening the prospects of new infrastructure development, for instance the possible evolution of Northern Sea Route (NSR) as a new international shipping route between East Asia and Europe, or calls to install trans-Arctic submarine communication cables shortening the latency between Asia, Europe and North America.

Diverse opinions on these projects generate a strong social dialogue, including who has the right to decide (or veto), how local and often conflicting voices are heard, or how their views are seen in the final implementation. Arctic communities are often uninterested in seeing themselves as areas through which global and national supply chains and transportation routes are built through if they do not provide prosperity to the host communities. The construction phase typically creates short-term employment opportunities, but a railway line without a station or a shipping line without a port of call leave all the harm without any long-term benefit. For a long time, this has characterized the connection between Arctic economic infrastructures and Arctic communities. Similar kinds of debates may also be ahead when new types of projects, such as those related to the development of space infrastructure, are promoted in the Arctic. A comparatively strong public sector, including defense, is often a driver of local development. Infrastructure that has been built for corporate or public actors often serves civilian users but can also have negative impacts on local communities through environmental harm.

With infrastructure come also the people who build the infrastructure. While the construction phase may be short, the improved accessibility can also bring in new people, or motivate people to leave the region. At the same time, modern telecommunications infrastructure makes it possible to work remotely, access and develop digital services (e.g., e-healthcare and e-education), or to participate in online social activities. These kinds of improvements may help the Arctic communities to attract new (possibly younger) inhabitants or at least motivate the current residents to stay. The failure to develop telecommunications would be a major risk to people living in societies that are increasingly dependent on fast and flawlessly functioning digital infrastructure.

Arctic Indigenous people must be taken into consideration. Many cases show that infrastructure development can impact Indigenous livelihoods and therefore Indigenous culture. Here, different types of rights can come into conflict with one another (Free, Prior and Informed Consent, See Chapter 7), providing challenges for different legal and regulatory frameworks. For example, the Supreme Court of Norway ruled in 2021 that some wind energy farms had been constructed illegally, as the rights of the local Indigenous reindeer herders had not been considered sufficiently. In Finland, plans for the construction of a railway connecting the Finnish railway network with the Arctic Ocean coast in Norway, that would have gone through the Indigenous home area in the northernmost part of Finland, were halted partly due to objections by the Sami Parliament of Finland. Here, international law norms that safeguard Indigenous rights are applied in the practice of infrastructure developments, balancing competing interests. There is no single overarching institution in charge of the economic and infrastructural development of the Arctic. The regulation of infrastructure projects is usually based on national legislation, which may differ significantly between the Arctic states. Therefore, it is up to decision-makers and stakeholders at different levels to utilize existing governance standards to ensure that development is sustainable and takes into account all relevant rights and interests.

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9.3

Regulatory Aspects of Arctic Tourism

Antje Neumann

Arctic spectacular land- and seascapes and the natural phenomenon of aurora borealis have been attracting travelers from outside the region for a long time. While first visitors, often in search of adventure or on board of scientific exploration vessels, came to the region in the early nineteen century, mass tourism started with the development of transport infrastructure and the establishment of cruise tourism in the last century. During the last two decades, however, the Arctic experienced a significant growth of tourism, both, in terms of visitor numbers and types of activities. Beside technological advances, the enlargement of ports and the commencing of new airlines, climate change is one of the main reasons facilitating especially cruise tourism in waters that were previously unnavigable, such as for example through the North West Passage. Climate change also lengthens the tourism summer season, previously limited to a few months only. Arctic tourism is nowadays well established year-round and encompasses a large variety of activities, from leisurely tours by aircraft and ship to more active ventures like dog sledding and snowmobiling, to extreme sports on water and ice.

Due to this growth, tourism advanced to become a critical power in Arctic economies and provides an increasing source of income. At the same time, however, it also accelerates the environmental footprint. Thus, for example, cruise ship traffic itself is known to cause severe pollution to the marine environment and its carbon footprint is many times higher than that of cars. For Arctic ecosystems, which are highly specialized to cold-climate conditions and thus especially vulnerable to minimal changes, these impacts may lead to degradation and destruction. Increasing traffic may also pose greater risks towards possible accidents which may result in irreparable damage, as previous disasters in the Arctic have shown. Beside environmental impacts, the rising inflow of tourists may also cause tensions with local residents whose lifestyles are often characterized by subsistence practices, such as farming, fishing and hunting. Especially small communities and Indigenous peoples may be severely impacted in their ways of life.

Against this background, effective regulation of tourism activities in the Arctic becomes imperative. It can be broadly divided into state law, supplemented by international and regional law and policy, on the one hand, and self-regulation of the tourism industry, on the other.

Since the Arctic does not fall under one central legal regime, it is the laws and policies of the eight Arctic states with territories and territorial rights in the region (Canada, the Kingdom of Denmark, including the Faroe Islands and Greenland, Finland, Iceland, Norway, Sweden, the Russian Federation and the United States) that are most imperative for the regulation of tourism. These national laws and policies can range from legally binding access restrictions or banning of certain activities, for example, in protected areas and reserves, up to voluntary guidelines to manage visitors' behavior at the local level, for example, at heavily frequented places. A particularity applies to the Nordic countries where the so-called *Everyman's right*, a public right of access, is extensively established. The right, which evolved over history from a largely unwritten code of practice, implies everyone's basic right to roam freely in the countryside, without needing to obtain permission, no matter who owns or occupies the land. For commercial tour operators, it may extensively enlarge business opportunities, but also set some limits.

Domestic tourism regulation is supplemented by international regulation. Central in this regard is the *United Nations Convention on the Law of the Sea* of 1982. The convention imposes a legal order for all seas and oceans of the world. It includes principal rules for navigation, cooperation and environmental protection. Importantly for Arctic tourism, it also defines rights and responsibilities for 'flag states', which are states where companies, for instance cruise companies, register their ships. Hence, all states which allow a cruise ship to fly its flag in Arctic waters have respective responsibilities under this regime. Another important regulation is the *International Code for Ships Operating in Polar Waters*, developed under the auspice of the International Maritime Organization. Enforced in 2017, it establishes technical and environmental standards specifically for ships navigating in Arctic waters. These standards include, among others, a *Polar Ship Certificate* that classifies vessels according to their capabilities to navigate in ice-covered waters. Moreover, the code encourages ships not to use or carry heavy fuel oil in the Arctic, substances that are particularly harmful through their *black carbon*

emissions if burned. This recommendation will become mandatory as of 2024 (with exceptions towards ships of Arctic coastal states).

At the regional level, the *Arctic Council*, a high-level intergovernmental forum of the eight Arctic states and formally established in 1996, plays an important role for Arctic tourism. Even though the council has no legal authority, it has however proven to be effective at providing policy-relevant knowledge and scientific assessments. The latter are mostly generated by six working groups, of which two are especially relevant: the *Protection of the Arctic Marine Environment Working Group* and the *Sustainable Development Working Group*. While the first puts a focus on Arctic marine tourism and has produced key assessments and recommendations to strengthen existing mandatory requirements and various voluntary policies, the second working group aims especially at Indigenous peoples and Arctic communities to advance sustainable development and improve environmental, economic and social conditions.

In contrast, self-regulation is provided by the various stakeholders engaged in Arctic tourism industries, most noticeably by the *Association of Arctic Expedition Cruise Operators*. Founded in 2003, the association has continuously grown over the years and includes today almost thirty full members and numerous provisional members, which are operating in waters north of 60 degrees. It sets out a range of industry guidelines underscoring its members' commitments to managing responsible, environmentally friendly and safe tourism in the Arctic. Its objective aims also to protect the culture and habitat of Indigenous and non-Indigenous communities in relation to cruise tourism. Recent examples in this regard include the development of *Community Specific Guidelines*, which are negotiated with the input of local stakeholders to improve the visitor's experience on site and to make visitation more sustainable.

Overall, Arctic tourism is not centrally regulated but rather subject to a patchwork of domestic, regional and international laws and policies, complemented by industry self-regulation. Biggest challenges exist with regard to the continued growth of tourism, its importance for Arctic economies and its accelerating footprint on the Arctic environment. The latter

becomes particularly intensified by the consequences of climate change which are in the region more drastic than on global average.

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9.4

Regulating Arctic Scientific Research: The 2017 Agreement on Enhancing International Arctic Scientific Cooperation

Medy Dervovic

The Arctic region has long attracted the attention of the international scientific community. Numerous Arctic expeditions already took place at the dawn of the first International Polar Year (1882-1883). Fueled initially by the desire to reach and (re)discover the planet's northernmost region, these expeditions gradually became driven by scientific interests, covering natural sciences, geography, and anthropology. Then, throughout the 20th century until today, a collective determination amongst States of the northern hemisphere to understand and protect the Arctic environment emerged as a means to advance humankind's understanding of natural and anthropogenic processes that drastically transform its surroundings.

The regulation of scientific research is a complex topic dealing with the conduct of scientific activities in and beyond sovereign territories. In the Arctic, it consists of several legally and non-legally binding instruments and processes adopted at the domestic, bilateral, regional, and international levels. These include, *inter alia*, the 1920 Svalbard Treaty, the 1982 United Convention on the Law of the Sea, the 1990 Founding Articles for an International Arctic Science Committee, the Crown Prince Regent's Decree of 30 March 2001, the 2012 Agreement on Scientific Cooperation on China-Iceland Joint Aurora Observatory, and the 2013 Arctic Council Rules of Procedure. As a result, scientific research undeniably contributed to shaping Arctic law and governance and promoting scientific cooperation in the Arctic.

With the growing awareness of the importance of the Arctic region for the world in the context of climate change, further efforts are still needed to improve our understanding of the impacts of climate change in the Arctic and their rippling effects worldwide. In this context, the eight Arctic States adopted the Agreement on Enhancing International Arctic Scientific Cooperation on 11 May 2017. The Agreement was prepared by the Scientific Cooperation Task Force established by the Arctic Council in 2013, and is the third legally binding agreement concluded between these States under the auspices of the Arctic Council. It entered into force on 23 May 2018.

The scope of the Agreement is interesting for a couple of reasons. First, the Agreement adopts a broad definition of the geographical extent of the Arctic as described in Annex 1 on Identified Geographic Areas. It includes terrestrial, marine, coastal, and atmospheric areas within and beyond national jurisdiction (art. 6). Second, the Agreement provides a non-exhaustive list of activities covered by the umbrella notion of scientific activities (art. 1). Alongside activities usually associated with scientific research, it includes traditional/local knowledge and the dissemination of scientific results.

The Agreement aims to build upon the pre-existing Arctic scientific cooperation, striving to "increase effectiveness and efficiency in the development of scientific knowledge about the Arctic" (art. 2). By cooperating logistically, financially, and scientifically, States can improve current knowledge faster and more efficiently. This goal is consistent with the generally accepted idea that tackling the global climate crisis requires prompt actions based on the best scientific evidence available.

Almost half of the provisions of the Agreement are traditional legal provisions framing its life (review, contact points, annexes, dispute settlement, relationship with other agreements, third parties, amendments, entry into force, withdrawal, depository). Nevertheless, the main part of the Agreement concentrates on logistical matters required to facilitate the conduct of and cooperation on scientific research in the Arctic. Accordingly, States must take appropriate and expeditious measures enabling scientists and their equipment to enter and exit the territory of a Party (art. 4), to access research infrastructures, facilities, logistical services (art. 5), research areas (art. 6), and data relevant to the scientific activity undertaken (art. 7 para 1). Moreover, Parties have the duty to support the dissemination of scientific results in open access outlets and, ideally, free of charge (art. 7 para 2).

The Agreement also adopts intergenerational and inclusive perspectives. Intergenerational because it strives to include the younger generation of scientists in scientific activities performed in the Arctic. The rationale behind this idea mainly rests on the will to attract students and early-career scholars and further develop capacity-building to advance knowledge about the Arctic (art. 8). And inclusive because Article 9 highlights the importance of

considering traditional and local knowledge in scientific activities in the Arctic. It also encourages engaging with and involving the holders of such knowledge (e.g., Arctic Indigenous Peoples).

All these provisions apply between the eight Arctic States, and the Agreement does not contain an accession procedure. However, it would be against the spirit of the Agreement to ignore the interests and role of non-Arctic States in scientific research in and about the Arctic. Article 17 provides for the possibility of extending the cooperation measures to non-Parties.

In practice, it is generally accepted that the Agreement is a relevant instrument for improving scientific cooperation in the Arctic. In a 2019 survey, scientists reported on their initial experiences with the implementation of the Agreement. While some encountered bureaucratic hurdles, most scientists had a positive experience regarding access to other Arctic States in general. Furthermore, they highlighted areas of improvement, such as more precision on ways to include Indigenous knowledge and non-Arctic States, but also on how to increase awareness about scientific cooperation in the Arctic.

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CHAPTER 10: ENVISIONING THE FUTURE OF ARCTIC LAW

10.1

The Future of Hard/Soft Law Interactions and the Arctic

Hema Nadarajah

Soft law is an important concept because of its normative value as well as its ability to fill in the gaps between existing hard law and provides a foundation for the development of international law within frontier regions such as the Arctic. Even with the scholarship, however, there is a lack of consensus on a definition for soft law. Some advocate a binary definition, but this approach obscures a subset of binding treaties with soft characteristics, including ambiguity, permissiveness, and redundancy relative to previous treaties.

While several studies have been conducted on the soft governance approach of the Arctic Council, nearly all of them have focused on non-binding instruments. When examining soft law, only a few scholars have considered binding, but soft instruments negotiated and concluded within the Arctic Council and other Arctic fora. By discounting soft treaties in their categorization of soft law, these scholars fail to account for the full range of implications that such governance has on the region. For the same reason, some scholars make the mistake of applauding the Arctic Council member states for having concluded three binding treaties—without consider whether these treaties are soft or hard. One needs to examine the full range of "soft" instruments, whether binding or non-binding, in order to understand the reasons and implications for such an approach to the region's governance.

Soft law is the result of deliberate choices made to enable international cooperation. There is no hierarchy of value or importance with regard to different kinds of norms, rules, and instruments, with hard treaties at the top and soft law at the bottom. Instead, this is simply a situation of "different horses for different courses". An Arctic regime complex of hard law supplemented extensively by soft law instruments can be credited for cooperation in a region with several mutually suspicious states, which may not trust each other enough to make many hard law commitments. At the same time, a shared commitment to cooperation in the Arctic partly explains the ability of these states to enter into some binding legal agreements—even if

most of them are soft treaties. Far from being a weaker and less effective alternative to hard law, soft law is an important normative solution that can exercise significant influence over actors and outcomes within the international system. Depending on the context – the degree of power that the relevant negotiating parties exercise, the issue that a particular instrument is meant to address, the degree of influence that the general public and other non-state actors have on decisions – soft law will often be a better alternative to hard law.

Today, we are seeing an increase in the frequency of situations favoring soft treaties. Growing numbers of state and non-state actors can make it more difficult to negotiate hard treaties. Rapid political, technological, and environmental change can make it impractical to use hard treaties that are, to some degree, frozen in time. Soft treaties and other forms of soft law are more flexible and adaptable. They also allow for greater and more diverse participation. And they might avoid some of the obstacles that can prevent the adoption of hard law, such as tension between Western states and Russia, while leaving open and even facilitating the possibility that their commitments might later become part of hard treaties or customary international law.

In questioning if soft law is increasing in the Arctic, one must also eventually ask the reverse: Is there a universal decline in hard treaties? If so, why? And, has the decline in hard treaties caused the rise in soft law instruments? Or has the ease with which soft law instruments are being negotiated caused the decline in hard treaties? What is the causal effect linking the decline of hard treaties and the rise of binding and non-binding soft law? It has been shown that soft law's expansion is coupled with hard law's decline due to an increasing number of states whose agendas are not aligned operating within consensus-based bodies. However, a deeper enquiry of the causal linkage between the soft and hard law needs to be further examined. Similar to the enquiry of the various degrees of softness in binding and non-binding legal instruments examined, one could also explore possible differences in the hardness of different hard treaties and their associated implications. Broadening the analysis would further help to situate soft law within the larger range of international law sources, and to elucidate its full impact in both international and domestic affairs.

International law is often criticized for lacking enforcement mechanisms. Although this criticism is usually overblown (think of the UN Security Council, international courts and tribunals, and national courts), it is true that international law may be more dependent on reciprocity, reputation, and other forms of "soft" enforcement than domestic law. For this reason, it is also possible that soft international law is not as much of a departure from hard international law as soft domestic law (recommendations, guidelines) might be from hard domestic law (statutes, contracts). Soft treaties might be just as effective as hard treaties, at least in some instances, precisely because neither kind of instrument relies on hard enforcement.

Last but not least, identifying the existence of soft treaties and analyzing their role and consequences also enables us to better understand the complex relationship between International Relations and International Law. States choose forms of instruments based upon careful considerations of objectives, obstacles, opportunities, and the relative benefits and drawbacks of the options available to them. Seen in this light, soft treaties are just one more tool available to diplomats.

For more on this, read…

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10.2
Non-state Actors in the Arctic Governance Process

Nikolas Sellheim

In some media discourses, the Arctic has been termed the 'last frontier' where a 'scramble for resources' is taking place. The idea behind this narrative is that the Arctic states compete over the vast natural resources, first and foremost oil and gas, that become more and more accessible due to climate change and melting sea ice. What this narrative implies is that it is first and foremost nation states who shape the state of affairs in the far north. This in a simplified version of the different stakeholders that interact to make the Arctic a place of cooperation, business and science. These actors make the Arctic a place that expands beyond the reaches of national jurisdictions. These non-state actors cannot necessarily be grouped due to their different but also aligning interests and scopes, although they can be identified as belonging to the following categories: 1. finance; 2. indigenous; 3. industry; 4. institution; 5. non-governmental; 6. research; and 7. university. In addition, media play a significant role in shaping the view on the Arctic and influence decision-makers both inside and outside the region.

One of the most known group of actors are indigenous peoples' organisations that play important roles within their respective nation states and some of which act as Permanent Participants in the Arctic Council. While they are not decision-makers in the Council per se, no decision should be made without their approval, thus identifying them as crucial stakeholders in Arctic affairs. On a national level, these de facto non-governmental organisations (NGOs) represent the interests of the respective indigenous people and may also defend these against actions of the state. The Arun Association, for instance, vividly fights for land rights of nineteen indigenous communities in the Krasnoyarsk region in Siberia. By also legally representing their interests, the applicability of legislation concerning indigenous peoples in Russia is put to the test. Similarly, other NGOs, often engaged in environmental protection, have had a long-standing history in the Arctic. Their influence has also contributed to legislation that directly impacts Arctic livelihoods, best exemplified by the EU's ban on trade in seal products in the adoption of which NGOs played a major role.

But apart from NGOs, also rather newly emerged think tanks increasingly provide expertise beyond the academia. In many instances, these organisations build a bridge between state representatives, the academia, indigenous peoples and other actors. While they do not act as decision-makers, they nevertheless provide for expertise and skill that enables the exchange of knowledge and increased levels of science communication, thereby indirectly shaping Arctic governance processes and law-making.

While state-wide cooperation is well-established in the Arctic, for instance in the Barents Euro-Arctic Council or the West Nordic Council, this cooperation also takes place on a more local level. For instance, the Arctic Mayors' Forum, established in 2019, advocates the interests of municipalities all around the Arctic. As such, fourteen municipalities from all Arctic states have started to create a common voice in lieu of a formalised mechanism for the inclusion of local governments in Arctic governance processes. This resembles the Northern Sparsely Populated Areas Network (NSPA), which represents the 13 northernmost regions of Finland, Norway and Sweden, advocating their aligned interests and circumstances on an EU-level.

Non-state cooperation also occurs for the development of business opportunities. Bearing in mind the narrative of the Arctic as a remote landscape, innovative businesses thrive all across the circumpolar north: the farming of sea weed in the Faroe Islands, the development of space technology in Sweden, an indigenous-operated highway project in Canada's Northwest Territories, a large-scale wind-farming project on the Kola Peninsula, or a ruby and pink sapphire mining operation in southwestern Greenland are but some examples for the vast business opportunities the Arctic provides. Given the active inclusion of local expertise in these projects, their benefits for local communities are substantial. On an Arctic-wide scale, the Arctic Economic Council (AEC) comprises businesses operating in or with the Arctic from all Arctic States. The AEC's purpose is to foster business opportunities, investment and trade, paying due regard to environmental protection and sustainable development. Business in the Arctic consequently serves as an example for non-state opportunities to implement the United Nations' Sustainable Development Goals (SDGs) beyond the nation state.

Also, the Arctic research and science community shows well-established non-state activity. The International Arctic Science Committee (IASC), for example, has been in operation since 1990 and serves as a key player for science communication and the conduct of Arctic research. Apart from representation from all Arctic states, IASC has expanded far beyond the Arctic and now includes fifteen non-Arctic states as well, including China, India, South Korea and Japan. While being an NGO, over time, IASC has become the main hub for all aspects relating to Arctic research and thereby a key player in Arctic affairs. Similarly, the University of the Arctic (UArctic) now combines more than 200 educational institutions from across the Arctic and beyond, having become a key player in capacity-building for and about the north.

With such a vast array of non-state actors, the Arctic provides for exceptional opportunities to serve its inhabitants. While Arctic discourses are still shaped by the interests of the nation state, the mere existence of a plethora of non-state actors shows the diverse manner Arctic cooperation has developed since the end of the Cold War and how the Arctic is not merely a source for natural resources, but also an opportunity for prosperous development on the ground.

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10.3

Arctic Law – An Academic Discipline

Kamrul Hossain

In its broadest sense, the law is a set of socially agreed-on norms. Traditionally, law's functions are strictly designed in a politically organized community, for example, an entity enjoying sovereignty. This may be a state, a component thereof, such as canton or autonomous territory. The competent authority resorts to a procedure or process to adopt, interpret and implement rules emanating from agreed-upon legal norms. Such a process forms a legal system.

In this sense, the Arctic does not have a legal system or belong to a legal family in the same way as comparative lawyers understand the concepts; examples of systems are Common Law, Civil Law, sharia law and mixed Law. Although the Arctic Indigenous peoples traditionally maintain their own legal traditions, known as customary law, the predominant Western understanding of law does not recognize such systems having true normative force, inasmuch as they are not derived from the legal systems of the states that colonialized the peoples.

The salient point to remember here is that the Arctic does not constitute a single political entity for purposes of creating a legal system of its own. Instead, it comprises a transnational region shared by eight sovereign states, each with national territorial jurisdiction over its part of the Arctic. The entire twenty million square kilometers of the Arctic include territory within and beyond states' national legal jurisdiction. The region's legal status hinges on the fragmented national legal systems of Arctic countries and applicable international regulations beyond national jurisdictions. This being the case, what is it that we call Arctic law?

Answering this question demands an investigation into what law is and why we study law. The goal of law is not merely to produce legal rules as prescriptions for behaving in a certain way or to create sanctions to punish behavior contrary to what has been prescribed. While applying legal rules furthers dispute settlement, serving an objective of the law, and legal practitioners rely on those rules in juridical processes. However, the purpose

of the law goes beyond resolving disputes. The established legal rules are often insufficient to achieve the ultimate goal of law.

The overarching goal of law is to serve society in order to create a better world. Law has a mission to accomplish – allowing humans to flourish in pursuit of an equitable, fair and just society – yet this is often jeopardized due to the problems created by the legal norms enacted to that end. Therefore, law is sooner a matter of better understanding society in its dynamic form, structural contexts and challenges, and integrating relational perspectives by critically analyzing and examining the pretext and context. The aim is to deconstruct presupposed structure and knowledge systems in the face of the dynamic nature of problems and challenges. Hence, the ultimate goal is to eradicate systemic governance challenges and promote an understanding of multifaceted challenges with a critical legal mindset that advances the achievement of a fair, just, and equitable society.

Thus, studying law does not necessarily mean becoming a practitioner only, even though a legal education will allow one to become a practicing lawyer who appears before judicial institutions. In broader perspective, the study of law provides skills to develop an analytical and critical mindset to apply when evaluating social norms and socially essential phenomena. Studying law offers intellectual strength combined with a practical approach to the world. The discipline of law provides insights into the complex relationship that humans as social animals engage in in everyday life while interacting with each other and the surrounding environment. For example, family law is not solely a branch of law that deals with marriage, divorce, succession and like issues; it also concerns itself with how justice is reflected in partnership relations and in the relations between parents and children.

Similarly, environmental law focuses on learning the interrelationship between various forms of human and non-human agents. It is not merely a matter of applying existing rules in the interests of biodiversity or nature protection. It very much includes a better understanding of the human-nature relationship in response to the anthropocentric worldview which prevails today; anthropocentrism is a mentality that ignores the historical and current relationship of power between colonizer and colonized, polluter and pollutee, and rich and poor, as well as the impact of the imbalances involved on the

planet. Approaches that develop understandings of law beyond such narrow perspectives are elemental in what we call Arctic law.

Arctic law offers an avenue to learn about the interlinkages between the climate change regime and global environmental governance. For example, a legal inquiry might look into how a disproportionate rise in the temperature in the Arctic not only affects the region itself but the entire globe as well, and how the protection of the pristine Arctic environment is indispensable for maintaining that of the planet at large. Arctic law helps us understand the Earth's functioning as an assemblage of interconnected natural systems with its own rules and ways of serving all agents equally, both living and non-living. Disruption by human processes, such as anthropogenic behavior, affects the natural systems that underpin the earth's functioning. The study of law reconfirms why the discipline of international environmental law emerged in the early 20th century, which suggests that an absolute rule-based approach to state sovereignty runs contrary to the natural courses of law. A concrete example was the Trail Smelter Case from the late 1920s, which established the foundation of extraterritorial relationships in environmental governance. Arctic law adds the transnational and transregional component to such extraterritorial relationships.

Such relationships offer room to explore similar interconnected phenomena, such as humans living in a region suffering from a violation of human rights due to states' inaction – failure – to comply with emission reduction obligations, for example. Law in this perspective shows us how climate change and human rights are interconnected, and how climate justice is a crucial consideration being threatened due to the existing "free-will based" structure of international law. Additionally, Arctic law helps us to understand the interdependence of science and law, that is, how science sets the stage for law and legal regulations, having critically examined the differences between "best available scientific information" and "best scientific information available". For example, the Arctic Ocean bed is characterized through a set of geomorphological features known as ridge systems. Drawing legally binding outer limits of the continental shelf of states surrounding the Arctic Ocean requires our understanding of science to apply legal rules appropriately.

Arctic law teaches us to understand differences in the approaches observed by "others", such as the Indigenous peoples, who are unknown in the formal international law-making process. The discipline highlights an urgent need to give serious consideration to the integration of different knowledge systems and to decolonize the prevailing knowledge structure. For example, Indigenous knowledge systems are guided by evidence from historical trajectories and popularized as the knowledge base for a moral conviction instilled in human behavior across regions and territories. Such a knowledge system, evident in the Arctic, creates a sense of there being profound physical, mental and spiritual relationships between human and non-human agents. Its integration into scientific innovation offers a novel direction toward an inclusive and knowledge-dictated governance framework.

In this light, Arctic law sets itself the task of rectifying mistaken presuppositions that find their way into international treaty-based rules and reveal a lack of adequate knowledge of conditions in the Arctic. As an academic discipline, Arctic law helps us to analyze the dynamic nature of the Arctic's environment and its socio-cultural and geopolitical features, and thereby enhance our understanding of the Arctic challenges across the region and globally. Solving the Arctic's problems and problems caused by prevailing legal norms requires a critical legal mindset; indeed, this is what Arctic law provides us with – a mindset enabling us to advocate for a just, fair, and equitable Arctic.

For more on this, read…

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