

**Forum:** Environmental Commission (EC)

**Issue:** Addressing the Environmental Impacts of Arctic Resource Exploitation



**Student Officer:** Evangelia Vakareli

**Position:** Deputy President

---

## Personal Introduction

Dear delegates,

My name is Evangelia Vakareli and I am an 11th grader at Pierce – The American College of Greece in the humanities orientation group. For this year's ACGMUN, I have the utmost honor of serving as a Deputy President in the Environmental Commission.

My MUN journey began in 9th grade when my friends and I decided to join our school's MUN club for fun. Though it slipped my notice at first, it didn't fail to intrigue me and spark my interest. Shortly after, I started attending conferences, meeting new people and gaining valuable experiences. This year will be my first time chairing, and I can't wait to see everything that's to come.

I hope this study guide helps you understand this topic and captures your interest, so you have as much as fun during debate as I did it writing it. I look forward to getting to know and to work with you all. Despite the study guide, you are strongly urged to conduct your own research in order to familiarize yourself more with the topic. With that, I am confident that we will have a very productive, yet also fun, time and I can't wait to meet you.

Should you have any questions regarding the topic or the study guide, don't hesitate to reach out to me at [e.vakareli@acg.edu](mailto:e.vakareli@acg.edu)

Sincerely,

Evangelia

## Topic Introduction

Global climate change has been a critical issue for many years now, yet the Arctic region is experiencing the fastest rate of warming on the planet. Even though many activists and organizations try to raise awareness about the threats that are being presented due to the melting of glaciers and sea ice, oil and gas companies find it as a great opportunity to expand their businesses and take advantage

of new oil and gas fields. This poses a threat for the Arctic wildlife and ecosystems, but also for indigenous people that rely on the fish and marine mammals of the Arctic.

The three main Arctic regions that have been connected to oil exploitation are the Beaufort Sea coast (North Slope of Alaska and the Mackenzie Delta of Canada), the Canadian north-eastern Arctic (Nunavut), and northwest Russia (Barents Sea and West-Siberia). New predictions show that the Arctic is likely to host 22% of the world's undiscovered, technically recoverable oil and gas reserves, according to a 2008 assessment from the US Geological Survey.<sup>1</sup>

The main driver of the Arctic resource exploitation is the global demand for oil, gas and other rare minerals that are needed for the transition towards an eco-friendlier approach. Precisely, such metals are neodymium, praseodymium, terbium and dysprosium and they are essential to “the world's electric-vehicle and renewable-energy revolutions, underpinning battery technology and wind turbines among other things.”<sup>2</sup> Also, a crucial part in this situation is taken on by economic profits, since due to the melting of ice and glaciers, new potential shipping routes like the Northern Sea Route become more accessible, enabling easier and cheaper transportation.

Despite already existing frameworks like the United Nations Convention on Law of the Sea (UNCLOS) and the work of the Arctic Council, the exploitation of Arctic Resources remains a pressing issue due to the rapid pace of climate change, and financial interests that are taking over.

However, this year's topic of “Addressing the Environmental Impacts of Arctic Resource Exploitation” aligns perfectly with this year's agenda theme, “Shaping Tomorrow” This year's theme encourages action toward building a sustainable future, by emphasizing and taking responsibility of our choices. In the case of the Arctic Exploitation and its environmental impacts, how we manage Arctic development today directly influences the environmental conditions of “tomorrow”. Having said that, it's important we focus on finding policies that shield Arctic ecosystems and indigenous tribes, so that we create a space where humans and nature can co-exist without harming one another.

## Definition of Key Terms

### The Arctic

---

<sup>1</sup> Super User. "Natural Resources." Arctic News, Maps, Events and Announcements - Arctic Portal, [arcticportal.org/the-arctic-portal/hot-topics/natural-resources](https://arcticportal.org/the-arctic-portal/hot-topics/natural-resources).

<sup>2</sup> "Arctic Connected - 30 Years of Action - WWF Arctic." WWF Arctic, 7 Dec. 2023, [www.arcticwwf.org/newsroom/features/arctic-connected-30-years-of-action/](https://www.arcticwwf.org/newsroom/features/arctic-connected-30-years-of-action/).

“The Arctic is named for the north polar constellation “Arktos”—Greek for “bear.” It is 14.5 million square km and has been inhabited by humans for close to 20,000 years. It consists of the Arctic Ocean and surrounding land, including all of Greenland and Spitsbergen, and the northern parts of Alaska, Canada, Norway, and Russia. Its boundary is irregular and is often defined by either the northern limit of stands of trees on land.”<sup>3</sup>

### **Gas field**

“A district where natural gas is produced in commercial quantities”<sup>4</sup>

### **Oil field**

“An area under the earth's surface where there is a large amount of oil”<sup>5</sup>

### **Resource Exploitation**

“The use of a valuable possession of a country, such as oil or gas, for one’s own profit”<sup>6,7</sup>

### **Climate Change**

“Refers to long-term shifts in temperatures and weather patterns”<sup>8</sup>

### **Arctic Council**

“The Arctic Council is the leading intergovernmental forum promoting cooperation, coordination and interaction among the Arctic States, Arctic Indigenous Peoples and other Arctic inhabitants on common Arctic issues, in particular on issues of sustainable development and environmental protection in the Arctic.”<sup>9</sup>

---

<sup>3</sup> "The Arctic: Location & Geography." Dive & Discover, [divediscover.whoi.edu/polar-regions/the-arctic-location-geography/](http://divediscover.whoi.edu/polar-regions/the-arctic-location-geography/).

<sup>4</sup> "Definition of GAS FIELD." Merriam-Webster: America's Most Trusted Dictionary, [www.merriam-webster.com/dictionary/gas%20field#:~:text=A%20gas%20field%20is%20a%20district%20where,natural%20gas%20is%20produced%20in%20commercial%20quantities](http://www.merriam-webster.com/dictionary/gas%20field#:~:text=A%20gas%20field%20is%20a%20district%20where,natural%20gas%20is%20produced%20in%20commercial%20quantities).

<sup>5</sup> "Oilfield." Cambridge Dictionary | English Dictionary, Translations & Thesaurus, [dictionary.cambridge.org/dictionary/english/oilfield](http://dictionary.cambridge.org/dictionary/english/oilfield).

<sup>6</sup> "Exploitation." Cambridge Dictionary | English Dictionary, Translations & Thesaurus, [dictionary.cambridge.org/dictionary/english/exploitation](http://dictionary.cambridge.org/dictionary/english/exploitation).

<sup>7</sup> "Resource." Cambridge Dictionary | English Dictionary, Translations & Thesaurus, [dictionary.cambridge.org/dictionary/english/resource](http://dictionary.cambridge.org/dictionary/english/resource).

<sup>8</sup> United Nations. "What Is Climate Change?" United Nations, [www.un.org/en/climatechange/what-is-climate-change](http://www.un.org/en/climatechange/what-is-climate-change).

<sup>9</sup> "Google Search." [arctic-council.org/about/](http://arctic-council.org/about/).

### **Technically recoverable resources**

“The oil and/or gas can be produced using currently available technology and industry practices.”<sup>10</sup>

### **Northern Sea Route**

“The northernmost parts of the North Sea across the icy waters of the Arctic Ocean north of Russia, east to the Chukchi Sea and Bering Straits where access to the North Pacific is reached.”<sup>11</sup>

### **Commercial Exploitation**

“Commercial exploitation refers to all activities undertaken to gain commercial benefit from one’s property; this includes actions such as making, selling, or licensing the use of that property”<sup>12</sup>

### **High Arctic**

“The high-Arctic tundra is the northernmost terrain in the world. It is characterized by a harsh polar climate, permafrost, and little vegetation, but is home to an array of herbivores, carnivores, and migratory birds.”<sup>13</sup>

### **Embargo**

“A government restriction placed on the importation or export of goods, services, or currency to another state”<sup>14</sup>

### **Permafrost**

“Ground, soil, or rock, including ice or organic material, that remains at or below 0°C for at least two consecutive years”<sup>15</sup>

### **Arctic Ocean**

---

<sup>10</sup> "What Are "technically Recoverable" Oil and Gas Resources?" USGS, [www.usgs.gov/faqs/what-are-technically-recoverable-oil-and-gas-resources](http://www.usgs.gov/faqs/what-are-technically-recoverable-oil-and-gas-resources).

<sup>11</sup> Ofurpaur. "Northeast Passage / Northern Sea Route (NSR)." Arctic Portal - The Arctic Gateway, [arcticportal.org/shipping-portlet/shipping-routes/northeast-passage](http://arcticportal.org/shipping-portlet/shipping-routes/northeast-passage).

<sup>12</sup> "What is Commercial Exploitation? Simple Definition & Meaning." LSD.Law, [isd.law/define/commercial-exploitation](http://isd.law/define/commercial-exploitation).

<sup>13</sup> "High Arctic Tundra." EBSCO, [www.ebsco.com/research-starters/science/high-arctic-tundra](http://www.ebsco.com/research-starters/science/high-arctic-tundra).

<sup>14</sup> CFI Team. "Embargo." Corporate Finance Institute, 22 Nov. 2023, [corporatefinanceinstitute.com/resources/economics/embargo/](http://corporatefinanceinstitute.com/resources/economics/embargo/).

<sup>15</sup> Super User. "Permafrost - Arctic Portal." Arcticportal.org, 2024, [arcticportal.org/education/quick-facts/environment-and-science/3523-permafrost](http://arcticportal.org/education/quick-facts/environment-and-science/3523-permafrost).

“The smallest of the world’s five principal oceans, located North of America, Asia, and the Arctic Circle, with its deepest section within the Greenland sea”<sup>16</sup>

## Glaciers

“Large, thick masses of ice that form on land when fallen snow gets compressed into ice over many centuries”<sup>17</sup>

## Ice Caps

“A thick layer of ice and snow that covers large areas of land”<sup>18</sup>

## Sea Ice

“Frozen seawater that floats on the ocean surface”<sup>19</sup>

## Background Information

### Historical context of Arctic Resource Interest

Mineral Exploitation in the Arctic traces all the way back to the Viking era, when the Vikings took over the land of Greenland and resided there for 500 hundred years. However, true investigations were initiated by the Europeans in the 16<sup>th</sup> century, in order to expand shipping routes. Such research was conducted by European explorers, like Henry Hudson (UK), Willem Barents (Netherlands) and John Ross (UK). In fact, Willem Barents was the one to search the Northeast Passage, and while he did come across several Arctic locations, like Bear Island, Svalbard and Novaya Zemlya, his expeditions never reached the eastern Arctic and were limited to the Kara Sea.

In the early 1600’s, the English and the Dutch established whaling stations in Svalbard, signifying the first commercial exploitation in the High Arctic. Whaling expeditions led to the discovery of coal on Spitsbergen (the main island of Svalbard). This coal was primarily used for their ships; however, serious mining didn’t commence until approximately 300 years later.

Throughout the 18<sup>th</sup> and 19<sup>th</sup> century several other metals and minerals were discovered in the Arctic (gold, silver, diamonds, etc.). However, a particularly significant milestone was the discovery of

---

<sup>16</sup> “Dictionary.com.” Dictionary.com, 2025, [www.dictionary.com/browse/arctic-ocean](http://www.dictionary.com/browse/arctic-ocean). Accessed 22 Dec. 2025.

<sup>17</sup> National Geographic Society. “Glacier.” Education.nationalgeographic.org, 20 May 2022, [education.nationalgeographic.org/resource/glacier/](http://education.nationalgeographic.org/resource/glacier/).

<sup>18</sup> National Geographic. “Ice Cap.” Education.nationalgeographic.org, 2023, [education.nationalgeographic.org/resource/ice-cap/](http://education.nationalgeographic.org/resource/ice-cap/).

<sup>19</sup> National Snow and Ice Data Center. “Sea Ice.” National Snow and Ice Data Center, [nsidc.org/learn/parts-cryosphere/sea-ice](http://nsidc.org/learn/parts-cryosphere/sea-ice).

the Normal Wells oil field that took place in 1920, which set the ground for oil and gas development in the Canadian Arctic. Land-based operations intensified only after oil was found in 1968 across the border at Prudhoe Bay in Alaska. During that period, between 1972 and 1989, companies drilled 86 wells in the Beaufort Sea, however economic and technical issues posed as obstacles for Arctic oil development at that time. Similarly, Russia made its first major Arctic discovery in 1962 at the Tazovskoe oil field, located in the Arctic part of West Siberian oil and gas province. This revelation resulted in the finding of new fields, that include the Novoportovskoe field (1964), the Gubkinskoe field, the Zapolyarnoe (1965), the Urengoy field (1966), the Medvezhye field (1967), Russkoe field (1968), and the Yamburg field (1969).

Even though Arctic resource potential existed earlier, what really accelerated Arctic exploration was the oil crisis that occurred in 1973. The economic state of Europe and Japan post-World War II was in great condition, which significantly heightened their need for energy. Oil was essential to this economic expansion due to its low price, efficiency and availability. During the period of 1960 to 1972, oil consumption more than doubled, as oil seemed to be replacing coal in the industry, to reduce air pollution. However, oil supply failed to meet the increasing demand, and ultimately companies were discouraged from investing in new production by government price controls. Moreover, the U.S., which had long stabilized global oil markets by keeping some oil unused on purpose in case of emergencies, could no longer support the market as its oil supply was reaching its limits. This left the global oil market in a vulnerable and unregulated state. By spring of 1973, the “energy crisis” started looking like a reality. The president at the time, Richard M. Nixon, recognized the gravity of the situation, by saying “If present trends continue unchecked, we could face a genuine energy crisis.”

Behind the financial motives, the true trigger behind the 1973 oil crisis, also referred to as Oil Shock, was a political dispute. More specifically, after the U.S. president’s decision to provide Israel with approximately 2.2 billion U.S. dollars in support of the Yom Kippur War on October 19<sup>th</sup>, 1973, “several Arab oil-producing countries imposed an embargo (approved by the Organization of the Petroleum Exporting Countries) on nations that supported Israel”. This sparked a sudden increase in prices and fuel shortages, since many countries depended on this oil. Although, the embargo didn’t last for long, as the Organization of the Petroleum Exporting Countries (OPEC) signed an agreement on January 18<sup>th</sup>, 1974, to lift the embargo in March 1974, it didn’t fail to leave a lasting impact on the global financial system.

## **Major Resource Sites in the Arctic**

The Arctic regions that are essential to resource exploitation are the Beaufort Sea Coast (North Slope of Alaska and the Mackenzie Delta of Canada), the Canadian North-Eastern Arctic (Nunavut) and northwest Russia (Barents Sea and West Siberia).

The Beaufort Sea Coast is located in the Arctic Ocean, situated north of Alaska and Canada's Yukon and Northwest Territories. It is known for its harsh weather conditions, like the fact that it's covered by ice most of the year, and its unique wildlife, hosting polar bears, beluga whales, numerous bird species, etc. The Beaufort Sea Coast holds significant gas fields, such as the Taglu Gas field that was discovered in 1971 in the Mackenzie River Delta and the Amauligak Field, which is the sea's largest oil reserve found in 1984. Part of the Beaufort Sea Coast is also the Trans-Alaska Pipeline, built in 1977, to transfer crude oil from Prudhoe Bay to the ice-free Valdez port.<sup>20</sup> Overall, the Beaufort Sea Coast holds a tremendous amount of Arctic resources and remains an important area for energy development.

The Canadian North-Eastern Arctic, commonly referred to as Nunavut and the High Arctic islands, holds a major part of Northern Canada and the Arctic Archipelago. Nunavut holds a variety of valuable minerals, such as gold, iron ore, and diamonds. In fact, the total value of the minerals extracted in Nunavut from 1999 to 2024 adds up to 20 billion Canadian dollars.<sup>21</sup> Nunavut consists of three major mines in operation currently, the Meadowbank Gold Mine, the Mary River Iron Ore mine on Baffin island, the Meliadine Gold Mine and the Doris North.

Northwestern Russia is the western European region of Russia that borders with Scandinavia and the Arctic and it includes important areas like Murmansk, Saint Petersburg and Arkhangelsk. Barents Sea, along Northwestern Russia, is fundamental for investigations on the post-glacial climate change, and also substantial for mineral exploitation. It was named after Willem Barents, a Dutch navigator, who explored the region during his expeditions in the late 16<sup>th</sup> century. Furthermore, West Siberia is a region between the Ural Mountains and the Yenisey River. It is an area rich in minerals, widely known for its gas and petroleum fields, but also aluminum production. Particularly, West Siberia plays a massive role in Russia's aluminum production, being responsible for 75% of Russia's aluminum production in 2003.<sup>22</sup> The Arshanovsky pit, which is Russia's largest coal mine, is also located in Siberia. Therefore, Northwestern Russia and West Siberia's influence in mineral exploitation is evident.

## Environmental and Geographical Conditions of the Arctic

---

<sup>20</sup> "Beaufort Sea." WorldAtlas, 18 Mar. 2021, [www.worldatlas.com/seas/beaufort-sea.html](http://www.worldatlas.com/seas/beaufort-sea.html).

<sup>21</sup> "Mining in Nunavut: 15 Facts & Statistics." Canada Action, 3 June 2025, [www.canadaaction.ca/nunavut-mining-facts](http://www.canadaaction.ca/nunavut-mining-facts).

<sup>22</sup> "Siberian Giant." Canadian Mining Journal, 2023, [www.canadianminingjournal.com/featured-article/siberian-giant/](http://www.canadianminingjournal.com/featured-article/siberian-giant/). Accessed 21 Jan. 2026.

The Arctic is mostly composed of water, or water in its various forms, e.g. glaciers, ice, icebergs. It contains a significant proportion of the Earth's freshwater, stored in glaciers and ice caps. Most of the Arctic is an ocean, called the Arctic Ocean basin that contains salty seawater. However, due to extreme weather conditions and low temperatures, much of this seawater freezes for most of the year, forming sea ice, that often is covered up by a layer of snow. The Arctic's sea ice helps regulate the Earth's climate, as "80% of the light that strikes it, reflects back to space"<sup>23</sup>, this "mechanism" contributes to moderating ocean temperatures globally.

However, as temperatures in the Arctic continue rising, three times faster than the global average rate, more difficulties and risks are being posed.<sup>24</sup> Glaciers and ice are starting to melt, exposing ecosystems and indigenous populations to new challenges and dangers. Ultimately, if this situation worsens, it's possible that animal species and other bionetworks go extinct. Additionally, climate change can result in the rising sea levels, that consequently will affect global climate, and might provoke extreme temperature events beyond the Arctic.

The Arctic Ocean makes up for a major part of the Arctic. It is characterized by its ecological diversity and marine biodiversity, while it also heavily influences global climate patterns. With the passing of time, climate change continues to affect the region, the polar ice caps' stability face great risks that could result in greater environmental issues, like rising sea levels. The coastal regions are home to various Indigenous nations, like the Inuit, Sami, and Yupik, whose lives have adjusted to the extreme conditions of the Arctic environment.

Arctic seasons are different to the average seasonal pattern. During winter, the weather faces extreme declines in temperature, reaching as low as -30°C to -40°C and days become very short or non-existent, with areas north of the Arctic Circle experiencing polar night. These extreme conditions contribute to the development and regulation. of the ecosystems. In summer, temperature can range from just below freezing to 10°C in some areas.<sup>25</sup> Additionally, it also experiences "Midnight Sun", a phenomenon in which several areas remain in continuous daylight for extended periods.<sup>26</sup>

## Difficulties faced in Early Exploitation

---

<sup>23</sup> National Geographic. "Arctic | National Geographic Society." Education.nationalgeographic.org, 20 May 2022, education.nationalgeographic.org/resource/arctic/.

<sup>24</sup> Arctic Council. "The Arctic in a Changing Climate." Arctic Council, 2024, arctic-council.org/explore/topics/climate/.

<sup>25</sup> National Snow and Ice Data Center. "Arctic Weather and Climate." National Snow and Ice Data Center, 2024, nsidc.org/learn/parts-cryosphere/arctic-weather-and-climate.

<sup>26</sup> National Oceanic and Atmospheric Administration. "Arctic Zone: Daylight, Darkness and Changing of the Seasons at the North Pole." Wwww.pmel.noaa.gov, [www.pmel.noaa.gov/arctic-zone/gallery\\_np\\_seasons.html](http://www.pmel.noaa.gov/arctic-zone/gallery_np_seasons.html).

Arctic exploration has always been relevant. The first expeditions, dating all the way back to the 1500s, were guided by simple technology, like compasses, wooden ships, etc. However, the explorers' lack of knowledge of the Arctic and its harsh conditions led to numerous tragedies. As time passed and technological advancements rose rapidly, Arctic investigation became more easily accessible and approachable. Scientific research is now possible without any human intervention, through drones and underwater autonomous vehicles. Advanced clothing and shelter technology have also been discovered to facilitate scientists' ability to endure the harsh climate.

### **Environmental Impacts**

Climate change has now become a very critical concern for the Arctic. Temperatures keep rising triple the typical rate, posing dangers towards many key means that help maintain the Arctic's ecosystems. More specifically, there has been a notice of a 13% decrease of sea ice per decade, while over the past 30 years 95% of the Arctic's oldest and thickest ice has disappeared.<sup>27</sup>

As mentioned, climate change in the Arctic directly impacts regions outside of the polar region in various ways. Initially, the melting of ice that weakens ecosystems, can also weaken societies and economies. That is because polar fisheries supply large amounts of fish that support global food security, and many countries depend on them for their trades, and food provisions. However, climate change is altering marine ecosystems and makes it harder for them to survive and therefore disrupts food chains. Additionally, "as temperatures increase in the Arctic, permafrost soils in northern regions store less carbon. The release of carbon dioxide and methane from the land to the atmosphere further contributes to global warming."<sup>28</sup>

It is also important to note that sea levels have risen by about 7-8 inches since 1900, and it continues to worsen. In fact, if the glaciers of the Greenland ice sheet melt completely, global sea levels could rise 20 feet. This constant rise becomes a danger to coastal cities and small island nations, as coastal flooding becomes more frequent and storm surges higher and more destructive, causing unwanted weather events, like hurricanes and cyclones.

---

<sup>27</sup> "The Impacts of Arctic Ice Loss." World Wildlife Fund, 2025, [www.worldwildlife.org/resources/explainers/six-ways-loss-of-arctic-ice-impacts-everyone/](http://www.worldwildlife.org/resources/explainers/six-ways-loss-of-arctic-ice-impacts-everyone/).

<sup>28</sup> "FAQ 3.1: How Do Changes in the Polar Regions Affect Other Parts of the World? — Special Report on the Ocean and Cryosphere in a Changing Climate." Ipcc.ch, Special Report on the Ocean and Cryosphere in a Changing Climate, 2015, [www.ipcc.ch/srocc/about/faq/final-faq-chapter-3/](http://www.ipcc.ch/srocc/about/faq/final-faq-chapter-3/).

Finally, Arctic permafrost thaw is threatening both locally and globally. When permafrost thaws, it often releases chemicals and microorganisms that cause diseases that have been trapped in frozen ground for centuries, creating health risks for people and animals. Since 2004, four ancient viruses have been unveiled in previously frozen soil.<sup>29</sup> These releases impair on already existing environmental damage and increase public health challenges in the Arctic. Moreover, as the situation escalates, it also impacts global carbon cycle, causing further warming and permafrost thaw through those greenhouse emissions.

**Picture 1:** Map showing the distribution of permafrost in the Arctic



### Effects on Indigenous Populations of the Arctic

The Arctic has been home to many Indigenous nations, such as the Inuit, the Sami, the Yupik, and more, for many years. Their infrastructure is heavily reliant on sea ice, which is why the melting of sea ice endangers their communities. Sea ice is their means of transportation and changes in sea ice cover directly impose on their ice roads. Meanwhile, the growing absence of ice for longer periods in Arctic waters, causes extensions in the shipping season, but also rougher seas. Additionally, the pressure exerted on ecosystems, by mining companies and changes in biodiversity due to climate change, makes it difficult for Indigenous people to hunt for their traditional food sources.

<sup>29</sup> WWF. "Thawing Permafrost." WWF Arctic, 2025, [www.arcticwwf.org/the-circle/stories/thawing-permafrost/](http://www.arcticwwf.org/the-circle/stories/thawing-permafrost/).

## Arctic resources

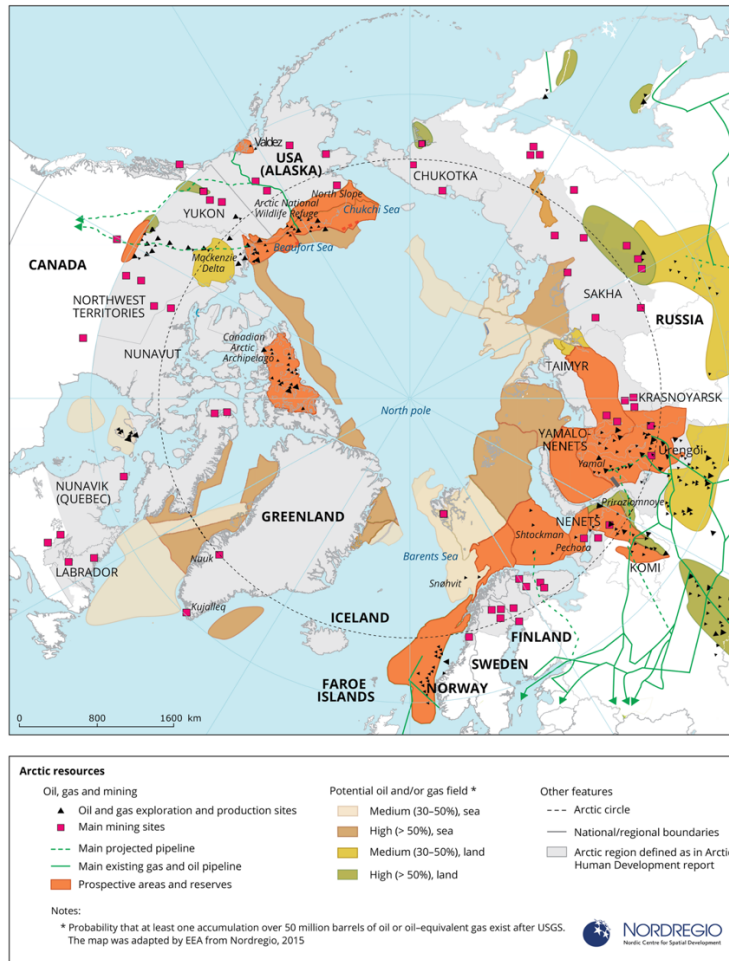
The Arctic is essential to today's resource exploitation, as it has extensive reserves of many necessary minerals. More specifically, the region is rich in metals, such as gold, iron, lead, nickel, silver, and zinc, as well as minerals, including mica, sand, gravel, and crushed rock. In addition, it contains valuable gemstones, like diamonds and rubies, and it is widely known for its extensive oil, gas and coal resources. Arctic's primary locations for extracting all these resources are the United States, Canada, Russia and several Nordic countries.

Apart from the economic value of Arctic resources, the region is also strategically important due to its potential to alter global economy, energy security and geopolitical balance. It has been revealed that the melting of Arctic ice unravels many opportunities for major powers to pursue their economic interests. Specifically, Greenland's resource potential includes 148 trillion cubic feet of natural gas, 31.4 billion barrels of oil and 1.5 million metric tons of rare earth minerals. These figures represent nearly 20% of the world's available reserves, and almost 10% of global natural resources. According to the U.S. National Intelligence Court, the Arctic may contain around 1 trillion U.S. dollars' worth of minerals and metals. The Arctic's resources are also critical for modern industries, and specifically semiconductor manufacturing and battery production.<sup>30</sup>

---

<sup>30</sup> Issra.pk, 2025, [www.issra.pk/insight/2025/Growing-Geopolitical-Significance-of-the-Arctic/insight.html](http://www.issra.pk/insight/2025/Growing-Geopolitical-Significance-of-the-Arctic/insight.html).

Map 1. Arctic Resources



Source: "Arctic Resources," European Environment Agency (EEA), adapted from Nordregio, 2015. Available at: <https://www.eea.europa.eu/en/analysis/maps-and-charts/arctic-resources>.

CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE

CarnegieEndowment.org

Picture 2: Map showing the main natural resources and areas of resource extraction in the Arctic

## Legal and Governance framework

The exploitation of Arctic resources is regulated by an international legal and governance framework designed to manage territorial claims, resource rights, and cooperation among Arctic states. Key components of Arctic governance include United Nations Convention on the Law of Sea (UNCLOS)<sup>31</sup>, the establishment of Exclusive Economic Zones (EEZs)<sup>32</sup>, and the role of the Arctic Council<sup>33</sup>, each of which plays a distinct role in shaping how Arctic Resources are managed.

<sup>31</sup> "UNCLOS - United Nations Convention on the Law of the Sea." [www.unclos.org](http://www.unclos.org), [www.unclos.org/](http://www.unclos.org/).

<sup>32</sup> United Nations. "PREAMBLE to the UNITED NATIONS CONVENTION on the LAW of the SEA." Un.org, 2019, [www.un.org/depts/los/convention\\_agreements/texts/unclos/part5.htm](http://www.un.org/depts/los/convention_agreements/texts/unclos/part5.htm).

<sup>33</sup> The Arctic Council. "The Arctic Council." Arctic Council, 2023, [arctic-council.org/](http://arctic-council.org/).

The United Nations Convention on the Law of Sea was adopted in 1982 and enforced in 1994. It sets out rules for law and order in the world's oceans, and how countries can use and manage maritime areas and resources. It also provides a framework for developing specific ocean laws through international organization like the International Maritime Organization (IMO). Overtime, the rules have been expanded with additional agreements (e.g. UN Fish Stocks Agreement, BBNJ Agreement, etc.) to address relevant issues and also fill gaps in the regulations.

“The Exclusive Economic Zones (EEZs) of the Arctic refer to the maritime zone that extends 200 nautical miles out from the coastal baseline of the Arctic nations. These zones are established under international law, particularly the United Nations Convention on the Law of the Sea (UNCLOS), to grant coastal states exclusive rights and jurisdiction over the exploration and exploitation of natural resources within these areas.”<sup>34</sup> The Arctic's Exclusive Economic Zones involve complex political and environmental issues. Arctic nations must balance economic interests with protecting the environment and respecting indigenous rights.

The Arctic Council, established in 1996, aims to foster cooperation, coordination and interaction among the Arctic States, Arctic Indigenous Peoples and other Arctic inhabitants on shared Arctic issues, including sustainable development and environmental protection. The Arctic Council consists of 8 Arctic States, each with territories within the Arctic. These states are Canada, The Kingdom of Denmark, Finland, Iceland, Norway, the Russian Federation, Sweden, and the United States.

The Arctic Council uniquely includes six Indigenous organizations as Permanent Participants, giving them full constitutional rights and an active role in the Council's decisions and projects, supported by the Indigenous People's Secretariat.

## Major Countries and Organizations Involved

### Russia

Mining first appeared in the Russian Arctic over 300 years ago, in the early 18<sup>th</sup> century, with gold and silver extraction. As time passed, the region turned out to be one of the world's most important suppliers of nickel, platinum, palladium, and diamonds (both primary and placer deposits). Placer diamond deposits account for 99% of Russia's total diamond production. The Russian Arctic contributes to 40% of global palladium production and 15% of global platinum production, but also has significant shares of nickel, cobalt, chromium, manganese, copper, tungsten, gold and other rare-earth minerals.

---

<sup>34</sup> Super User. “Exclusive Economic Zones of the Arctic (EEZ) - Arctic Portal.” Arcticportal.org, 2024, [arcticportal.org/education/quick-facts/governance-and-policies/3457-exclusive-economic-zones-of-the-arctic-eez](https://arcticportal.org/education/quick-facts/governance-and-policies/3457-exclusive-economic-zones-of-the-arctic-eez).

The arctic region (as a whole) contains over 97% of Russia's platinum reserves and approximately 40% of Russia's tin reserves.<sup>35</sup>

## Canada

Canada is very important to Arctic mineral exploitation, as it was the first region to mark the beginning of large-scale mining, with the discovery of gold in Klondike in the late 19<sup>th</sup> century (Canada's Yukon Territory). Following that discovery, the Arctic economy became heavily dependent on metal mining and exploration, seeing as 50% of Northwest Territory's income stems from mining. By early 2020, Canada managed to take the third place for the world's ranking of the largest producers of rough diamonds. Particularly, Canada is responsible for producing 13.5% of diamonds globally, and 12.5% of said diamonds total global market value.<sup>36</sup>

## The United States

The United States, and more specifically Alaska, hold major global mineral reserves. To put into perspective, Alaska holds 12% of the world's coal, 3% of global zinc, 3.5% of global gold, 1.6% of global lead, 1.5% of global silver, and 0.3% of global copper. Alaska is also responsible for producing gold, gemstones and several constructive materials, like gravel. In 2020, Alaska's mineral industry was valued at 3.2 billion U.S. dollars, despite the global economic declines caused by the pandemic. Additionally, Alaska also ranked first in the United States' zinc production, which made up 15.8% of the state's total exports in 2020. Consequently, the state is set to become a major exporter of rare earth minerals, pending the industry's approval.<sup>37</sup>

## Norway

Norway supports Arctic exploitation, but only under controlled, sustainable, and legally regulated measures. On January 9<sup>th</sup>, 2024, the Norwegian Parliament approved a government proposal that makes exploration of seabed minerals on Norway's continental shelf accessible.<sup>38</sup> This decision lets Norway study what resources exist and whether they could be exploited in the future without allowing immediate mining. The goal is to mine essential materials, like cobalt, lithium and rare earth minerals, for the green transition. However, this agreement sparked controversy, since scientists supported that

---

<sup>35</sup> "Arctic Mineral Resources." The Arctic Review, [arctic.review/economy/minerals-and-mining/](https://arctic.review/economy/minerals-and-mining/).

<sup>36</sup> *ibid*

<sup>37</sup> *ibid*

<sup>38</sup> "Norway to Mine Part of the Arctic Seabed | Think Tank | European Parliament." Europa.eu, 2024, [www.europarl.europa.eu/thinktank/en/document/EPRS\\_ATA\(2024\)757616](https://www.europarl.europa.eu/thinktank/en/document/EPRS_ATA(2024)757616).

deep-sea mining could result in extreme damage to vulnerable ecosystems. Shortly after, the Norwegian government agreed to pause all deep-sea mining activities until the current parliamentary period ends in fall 2029.<sup>39</sup>

## Denmark

Denmark's status as an Arctic state is mostly due to Greenland, which provided Denmark with direct access to the Arctic. Overall, Denmark prioritizes security and safety in the Arctic and abides by international law, paying close attention to the UN Convention on the Law of Sea. It still however promotes economic development and self-sustained growth, but again only under very high measures, such as responsible mining, investment in renewable energy, and sustainable use of biological resources (e.g. fisheries). Furthermore, Denmark also tries to address climate change issues, by protecting fragile ecosystems and the natural environment, and encourages global cooperation to achieve the protection of the Arctic.<sup>40</sup>

## China

The Arctic has become a zone of great-power competition, commonly controlled by Russia and the U.S., however China, despite lacking Arctic territory, seeks influence by trying to market itself as a near-Arctic state. Through this, China aims to gain access to natural resources and the Northern Sea Route (NSR) through its Polar Silk Road. To achieve influence in the Arctic, China uses International Organizations (IOs) to legitimize its presence and normalize non-Arctic state participation.<sup>41</sup> In the Arctic Council, China holds observer status, meaning it can't partake in any decision-making or voting procedures. However, when the Russia vs. Ukraine war erupted the Arctic Council was weakened, and China's refusal to condemn Russia's invasion and abandon collaboration with Moscow, only seemed to worsen the Council's fragile state. By doing so, China indirectly threatened the Council's authority. Moreover, China's cooperation with Russia worked in favor of China's interests, as it let China operate

---

<sup>39</sup> Aten, Travis. "Norway Abandons Deep-Sea Mining in the Arctic until at Least 2029 - DSCC." Deep Sea Conservation Coalition, 3 Dec. 2025, [deep-sea-conservation.org/norway-abandons-deep-sea-mining-in-the-arctic-until-at-least-2029/](https://deep-sea-conservation.org/norway-abandons-deep-sea-mining-in-the-arctic-until-at-least-2029/). Accessed 27 Dec. 2025.

<sup>40</sup> Vladimir Koptelov. "Strategy for Denmark in the Development of the Arctic." RussianCouncil.ru, 2020, [russiancouncil.ru/en/analytcs-and-comments/analytcs/strategy-for-denmark-in-the-development-of-the-arctic/?sphrase\\_id=237887328](https://russiancouncil.ru/en/analytcs-and-comments/analytcs/strategy-for-denmark-in-the-development-of-the-arctic/?sphrase_id=237887328). Accessed 28 Dec. 2025.

<sup>41</sup> "Dragon on Ice: China's Geostrategic Interests in the Arctic." INSS, 25 Mar. 2025, [www.inss.org.il/publication/north-pole/](https://www.inss.org.il/publication/north-pole/).

through Russia in the Arctic. Consequently, the power that each Arctic state has over the region weakens, and already existing rules and institutions are being provoked.<sup>42</sup>

### **International Arctic Science Committee (IASC)**

The International Arctic Science Committee is a non-governmental, international scientific organization, created by the Founding Articles, to encourage collaboration in all areas of Arctic Research, and further understand the Arctic and its role on Earth. It involves all countries and institutes that are engaged in Arctic science. To achieve its missions the IASC supports scientific development and independent scientific advice, ensures open and secure data-sharing, supports the next generation of scientists and promotes polar cooperation.<sup>43</sup>

### **Responsible Resource Development (RRD)**

The Responsible Resource Development Working Group under the Arctic Economic aims to provide the essential framework for responsible resource exploitation and development in the Arctic. The RRD works to identify both the challenges and conditions needed for responsible investment in Arctic resource development. To carry out its goals, a report sets out the best practices and a clear framework for business conduct, focusing on evaluating the environmental and social impacts of development.<sup>44</sup>

## **Blocs Expected**

### **Alliance 1 (Pro-Exploitation)**

Countries in favor of resource exploitation. Countries that are actively promoting resource extraction, specifically, minerals, fossil fuels, in order to expand their economic, and geopolitical agendas. Additionally, while these countries acknowledge sustainability in official statements, it usually happens for procedural matters rather than environmental-friendly policies. Environmental protection is often perceived as an obstacle to their interests and is often overdriven by profit motives. In this alliance, countries that agree with one of the following P5 Member States would be added: Russia, United States

---

<sup>42</sup> Raspotnik, Andreas. "China's Arctic Strategy and Hybrid Warfare: Targeting Governance and Strategic Responses." The Arctic Institute - Center for Circumpolar Security Studies, 9 Dec. 2025, [www.thearcticinstitute.org/chinas-arctic-strategy-hybrid-warfare-targeting-governance-strategic-responses/](http://www.thearcticinstitute.org/chinas-arctic-strategy-hybrid-warfare-targeting-governance-strategic-responses/).

<sup>43</sup> "About - International Arctic Science Committee." Iasc.info, 2015, [iasc.info/about](http://iasc.info/about).

<sup>44</sup> Council, Arctic Economic. "Responsible Resource Development Working Group." Arctic Economic Council, 8 July 2020, [arcticeconomiccouncil.com/workinggroups/responsible-resource-development-working-group/](http://arcticeconomiccouncil.com/workinggroups/responsible-resource-development-working-group/). Accessed 21 Jan. 2026.

of America, China. Other countries that belong in the alliance with them would be Denmark, Norway, Canada, and Australia.

### Alliance 2 (Anti-exploitation, pro climate security)

This alliance consists of countries that prioritize environmental protection, and sustainability over heavy resource extraction. These countries try to limit mining and instill strict environmental regulations in their exploiting/extracting activities. In this alliance, countries that are in agreement with the following P5 Member State would be added: France. Other countries that belong in this alliance are Finland, Iceland, Spain, and Germany.

### Timeline of Events

Date	Description of Event
Late 16 <sup>th</sup> century (1594-1597)	William Barent's expeditions in the Arctic region
1610	English and Dutch whalers discovered coal in Spitsbergen
1920	Discovery of the Norman Wells oil field
1 <sup>st</sup> December 1959	The Antarctic Treaty System was signed by the twelve countries whose scientists had been active in Antarctica
1961	The Antarctic Treaty was put into force
1962	Russia's discovery of the Tazovskoe oil field
1968	Oil discoveries at Prudhoe Bay in Alaska
1971	Discovery of the Taglu Gas field
19 <sup>th</sup> October 1973	American president Richard Nixon provided Israel with 2.2 billion U.S. dollars in support of the Yom Kippur War
10 <sup>th</sup> January 1974	OPEC agreement to lift embargo
March 1974	The embargo ended
1977	Trans-Alaska Pipeline Construction
1982	The UN Convention on the Law of Sea was adopted
1984	Discovery of the Amauligak Field

1991	PAME was first established
9 <sup>th</sup> May 1992	United Nations Framework Convention on Climate Change was adopted at the UN Headquarters
1994	The UN Convention on the Law of Sea was put into force
1996	Establishment of the Arctic Council
28 <sup>th</sup> May 2008	At the invitation of the Danish Minister for Foreign Affairs and the Premier of Greenland, representatives of the five coastal states adopted the Ilulissat Declaration
May 2015	IMO Polar Code was adopted by the IMO
12 <sup>th</sup> December 2015	The Paris Agreement was adopted by 195 Parties at the UN Climate Change Conference
1 <sup>st</sup> January 2017	IMO Polar Code was put into force
9 <sup>th</sup> January 2024	The Norwegian Government approved a government proposal that makes exploration of seabed minerals on Norway’s continental shelf accessible
12 <sup>th</sup> December 2024	Resolution 79/144 (A/RES/79/144) was adopted by the General Assembly at its 79 <sup>th</sup> session

## Relevant UN Resolutions, Treaties & Events

### [Resolution 79/144 \(A/RES/79/144\), adopted by the General Assembly on 12 December 2024](#)

The General Assembly adopted resolution 79/144, titled “Oceans and the law of the sea” during its seventy-ninth session on 12<sup>th</sup> December 2024. This resolution focuses on how countries should use and protect the oceans. While this resolution successfully promotes sustainable ocean governance through the reinforcement of international law, it is of non-binding nature, leaving compliance entirely up to individual countries.

### [The Paris Agreement \(COP21\), 12<sup>th</sup> of December 2015 \(A/RES/75/300\)](#)

The Paris Agreement, adopted by 195 Parties at the UN Climate Change Conference on 12<sup>th</sup> December 2015, is a legally binding international treaty on climate change. It aims to maintain “the increase in the global average temperature to well below 2°C above pre-industrial levels” and attempt “to limit the temperature increase to 1.5°C above pre-industrial levels.” However, due to the rapid pace of climate change world leaders have to the conclusion that global warming needs to be limited to 1.5°C by the end of the century. The Paris Agreement encourages countries to gradually raise their climate action every five years through national plans called nationally determined contributions (NDCs), which require countries to set, review and strengthen their climate targets. Simultaneously, it creates a universal framework for action and encourages cooperation, reinforcing the idea that climate change should be a global priority. However, its effectiveness is limited due to its dependence on political will. While participation is legally binding the targets each country sets are not enforceable, and consequently member states can't face penalties if they don't meet their commitments. Overall, it is of high importance as all countries “fight” united to improve climate change and tackle its impacts.

#### United Nations Framework Convention on Climate Change (UNFCCC), 9<sup>th</sup> May 1992

The UN Framework Convention on Climate Change, was adopted at the UN Headquarters on May 9, 1992. The Convention was quick to recognize the problem and its committed countries acted even with lack of scientific evidence. It aims to stabilize greenhouse gas levels to protect ecosystems and economies. It tracks progress through reporting and encourages adaptation to climate impacts. This framework successfully raises awareness and pushes global leaders to set climate change as a priority, however, there often happens to be a vast gap between the commitments made and the actual implementation of said climate policies, since countries fail to make their political policies a reality. Moreover, once again, this framework lacks enforcement, as it has no binding mechanisms for countries that do not fulfill the emissions reduction objectives.

#### Ilulissat Declaration, adopted on 28<sup>th</sup> May 2008

The Ilulissat Declaration, adopted on May 28, 2008, by the five coastal states of the Arctic Ocean, addresses climate change and changes in the Arctic environment to protect the region's ecosystems. It states that these countries and other users of the Arctic Ocean will use existing international law, especially the UN Law of the Sea, to cooperate peacefully. The Ilulissat Declaration heavily focuses on the UN Convention on Law of the Sea, reaffirming international law, and providing a clear stable legal basis for resolving maritime disputes. Despite, its commitment to cooperation, it heavily relies on the

“Arctic Five” coastal states, creating an exclusionary nature and provoking strict criticism on the declaration’s lack of inclusivity.

## Previous Attempts to Solve the Issue

### IMO Polar Code<sup>45</sup>

The IMO Polar Code, adopted in May 2015 and put into force on 1<sup>st</sup> January 2017, consists of a set of rules created by the International Maritime Organization that aims for safe and environmentally friendly shipping in the Arctic and the Antarctic. More specifically, it sets standards for ship design, construction and operation in polar waters and it tries to include environmental protection measures. Its main goal is to limit accidental oil spills, which would result in the pollution of an Arctic region. However, lack of monitoring and transparency, make it difficult to estimate the effectiveness or work on improvements. Implementation of the code is mainly left up to individual states to decide, which results in unstable compliance and inconsistency overall. In general, while the IMO Polar Code creates a necessary regulatory foundation for maritime matters, its practicality is not certain.

### The Antarctic Treaty System (ATS) Model<sup>46,47</sup>

The Antarctic Treaty was signed on 1<sup>st</sup> December 1959 and entered into force in 1961. Its goal was to restrict Antarctica’s use to only peaceful purposes and scientific research. These restrictions prohibited any military activity, nuclear tests and promotes scientific cooperation, making Antarctica a demilitarized and cooperative space. However, it cannot be replicated in the Arctic, since Antarctica has no permanent populations and therefore strict international control is realistic and achievable and the same doesn’t apply for the Arctic. It is, also, widely known that Arctic States own established sovereignty and substantial economic interests, which make it harder for such strict regulations to thrive in the Arctic.

### Protection of the Arctic Marine Environment (PAME)<sup>48</sup>

PAME was first established in 1991 under the Arctic Environmental Protection Strategy and continued as one of the Arctic Council’s six working groups. Its main operation is to develop guidelines and assessments designated for the Arctic marine and coastal environment. It aims to protect the Arctic

---

<sup>45</sup> "International Code for Ships Operating in Polar Waters (Polar Code)." International Maritime Organization, [www.imo.org/en/ourwork/safety/pages/polar-code.aspx](http://www.imo.org/en/ourwork/safety/pages/polar-code.aspx).

<sup>46</sup>"The Antarctic Treaty." Antarctic Treaty, [www.ats.aq/e/antarctic\\_treaty.html](http://www.ats.aq/e/antarctic_treaty.html).

<sup>47</sup> British Antarctic Survey. "The Antarctic Treaty Explained - British Antarctic Survey." Bas.ac.uk, 2015, [www.bas.ac.uk/about/antarctica/the-antarctic-treaty/the-antarctic-treaty-explained/](http://www.bas.ac.uk/about/antarctica/the-antarctic-treaty/the-antarctic-treaty-explained/).

<sup>48</sup> "PAME, [pame.is/](http://pame.is/).

marine ecosystems from pollution, shipping, and other exploitation activities and to promote sustainable use of the Arctic seas. Despite its strong knowledge base, there is no enforcement mechanism, thus implementation depends on Arctic States' political will. This creates an uneven implementation across the region, as states with prominent economic interests may prioritize development and resource extraction over environmental protection.

### **Arctic Contaminants Action Program (ACAP)<sup>49</sup>**

The Arctic Contaminants Action Program is a working group of the Arctic Council that focuses on reducing environmental damage in the Arctic. Specifically, it cooperates with national authorities to carry out “pilot projects” that aim to the reduction of persistent organic pollutants (POPs), onshore waste management, and short-lived climate pollutants (SLPs). ACAP attempts to address pollution before it damages the Arctic, many times are restricted due to the fact that a significant proportion of the Arctic contamination originates from outside the Arctic region, beyond ACAP's direct influence. Despite the program's strong preventive approach, its absence of authority over non-Arctic States, that are major emitters of pollutants outside of the Arctic, makes it difficult to regulate emissions at their source. Moreover, ACAP relies on limited financial resources that further restricts the number of projects that can be carried out, creating a risk of temporary rather than long term solutions.

## **Possible Solutions**

### **Creating systems protective of Arctic nature and biodiversity**

To protect Arctic nature and biodiversity, it is important to establish environmental monitoring systems, supervised by Arctic nations in cooperation with the Arctic Council. Those systems will track incident oil spills, monitor changes in ice and glacier thickness to detect melting trends, and measure chemical contamination levels that could be a threat to wildlife and Indigenous populations. Identifying core protected zones is also crucial. These areas would be strictly safeguarded from activities, like drilling or industrial shipping, with enforcement carried out by national authorities in coordination with national agreements. In this way, we can increase compliance with environmental regulations, strengthen long-term protection of the Arctic ecosystems and, perhaps, reduce environmental risks for indigenous communities.

---

<sup>49</sup> “Arctic Contaminants Action Program.” Arctic Council, 2021, [arctic-council.org/about/working-groups/acap/](https://arctic-council.org/about/working-groups/acap/).

## **Shifting energy aid from fossil fuels to renewable energy<sup>50</sup>**

The promotion of sustainable development in the Arctic is essential for protecting the region's environment and ecosystems. This could be done by creating an Arctic-specific renewable energy investment fund under the Arctic Council, in order for Arctic States to work together under the Arctic Council to set shared renewable energy targets. This fund would provide financial support for research and the development of renewable energy technologies designed to withstand the region's extreme weather conditions. Furthermore, limiting or gradually getting rid of tax breaks for oil and gas extraction would make fossil fuel exploitation less financially 'attractive'. By doing so, Arctic states could shift their focus towards sustainable energy alternatives, encouraging investment in safer technologies and reducing environmental risks associated with oil and gas.

## **Mandatory Environmental Impact Assessment before any drilling**

There is only one way to ensure responsible resource exploitation in the Arctic, and that it to carry out an Environmental Impact Assessment beforehand. Under this framework, the Arctic Council, but also the Environmental protection agencies of each country, would require a thorough study of potential environmental, ecological, and social impacts prior to granting permission for any resource-related project. Additionally, the Environmental Commission in collaboration with the Security Council can impose sanctions or pass a legal framework, after forwarding the issue to the Security Council. If the assessment reveals that the activity poses high risks to vulnerable Arctic ecosystems, authorization will be denied in order to prevent any damage. In cases where the assessments identify minor risks, companies may proceed with their project, only under strict mitigation measures to minimize environmental harm.

## **Bibliography**

### **General Bibliography**

Borshchevskaia, Ekaterina, et al. "Pollution in the Arctic: Oil and Gas Extraction on the Continental Shelf As a Major Contributor." The Arctic Institute - Center for Circumpolar Security Studies, 10 Oct. 2025, [thearcticinstitute.org/pollution-arctic-oil-gas-extraction-continental-shelf-major-contributor/](https://thearcticinstitute.org/pollution-arctic-oil-gas-extraction-continental-shelf-major-contributor/).

---

<sup>50</sup> United Nations. "Five Ways to Jump-start the Renewable Energy Transition Now." United Nations, [www.un.org/en/climatechange/raising-ambition/renewable-energy-transition](https://www.un.org/en/climatechange/raising-ambition/renewable-energy-transition).

"Oil and Gas." WWF Arctic, 7 Aug. 2024, [www.arcticwwf.org/threats/oil-and-gas/](http://www.arcticwwf.org/threats/oil-and-gas/).

Super User. "Natural Resources." Arctic News, Maps, Events and Announcements - Arctic Portal, [arcticportal.org/the-arctic-portal/hot-topics/natural-resources](http://arcticportal.org/the-arctic-portal/hot-topics/natural-resources).

"Arctic Connected - 30 Years of Action - WWF Arctic." WWF Arctic, 7 Dec. 2023, [www.arcticwwf.org/newsroom/features/arctic-connected-30-years-of-action/](http://www.arcticwwf.org/newsroom/features/arctic-connected-30-years-of-action/).

Rowe, Mark. "Arctic Nations Are Squaring Up to Exploit the Region's Rich Natural Resources." Geographical, 14 Mar. 2024, [geographical.co.uk/geopolitics/the-world-is-gearing-up-to-mine-the-arctic#:~:text=Instead%2C%20the%20main%20drivers%20of,be%20present%20in%20significant%20quantities](http://geographical.co.uk/geopolitics/the-world-is-gearing-up-to-mine-the-arctic#:~:text=Instead%2C%20the%20main%20drivers%20of,be%20present%20in%20significant%20quantities).

"UNCLOS is the Established, Consensus Framework for Arctic Governance." UNCLOSdebate.org, [www.unclosdebate.org/evidence/1606/unclos-established-consensus-framework-arctic-governance](http://www.unclosdebate.org/evidence/1606/unclos-established-consensus-framework-arctic-governance).

"Google Search." [arctic-council.org/about/](http://arctic-council.org/about/).

"DSpace." DSpace, [oaarchive.arctic-council.org/items/ee4c9907-7270-41f6-b681-f797fc81659f](http://oaarchive.arctic-council.org/items/ee4c9907-7270-41f6-b681-f797fc81659f).

United Nations. "Five Ways to Jump-start the Renewable Energy Transition Now." United Nations, [www.un.org/en/climatechange/raising-ambition/renewable-energy-transition](http://www.un.org/en/climatechange/raising-ambition/renewable-energy-transition).

"History of Polar Exploration in the Arctic." Fondation Tara Ocean, <https://fondationtaraocean.org/en/polar/history-polar-exploration-arctic/>

Geological Survey of Norway. Mineral Resources in the Arctic: An Introduction. Norges geologiske undersøkelse (NGU), 2016, [https://static.ngu.no/upload/Aktuelt/CircumArctic/Mineral\\_Resources\\_Arctic\\_Shortver\\_Eng.pdf](https://static.ngu.no/upload/Aktuelt/CircumArctic/Mineral_Resources_Arctic_Shortver_Eng.pdf)

Østhagen, Andreas. "Hedging Bets: Oil and Gas in the Canadian Arctic." The Arctic Institute - Center for Circumpolar Security Studies, 15 Dec. 2025, [www.thearcticinstitute.org/hedging-bets-oil-gas-canadian-arctic/](http://www.thearcticinstitute.org/hedging-bets-oil-gas-canadian-arctic/).

"Causes of the 1973 Oil Crisis and Its Effects on Economics." Investopedia, 19 July 2022, [www.investopedia.com/1973-energy-crisis-definition-5222090](http://www.investopedia.com/1973-energy-crisis-definition-5222090).

"Just a Moment..." Just a Moment..., [www.energypolicy.columbia.edu/publications/the-1973-oil-crisis-three-crisis-in-one-and-the-lessons-for-today/?utm\\_source=chatgpt.com&](http://www.energypolicy.columbia.edu/publications/the-1973-oil-crisis-three-crisis-in-one-and-the-lessons-for-today/?utm_source=chatgpt.com&).

"Beaufort Sea." Thecanadianencyclopedia.ca, 2015, [thecanadianencyclopedia.ca/en/article/beaufort-sea](http://thecanadianencyclopedia.ca/en/article/beaufort-sea).

"Beaufort Sea." WorldAtlas, 18 Mar. 2021, [www.worldatlas.com/seas/beaufort-sea.html](http://www.worldatlas.com/seas/beaufort-sea.html).

ofurpaur. "History of Oil in the Arctic - Arctic Portal - the Arctic Gateway." Arctic Portal - the Arctic Gateway, 2024, [arcticportal.org/energy-portlet/oil/energy-history](http://arcticportal.org/energy-portlet/oil/energy-history).

Rea, Kenneth John. "Nunavut | History, Population, Map, Flag, Capital, & Facts." Encyclopædia Britannica, 2019, [www.britannica.com/place/Nunavut](http://www.britannica.com/place/Nunavut).

"Mining in Nunavut: 15 Facts & Statistics." Canada Action, 3 June 2025, [www.canadaaction.ca/nunavut-mining-facts](http://www.canadaaction.ca/nunavut-mining-facts).

"Mines." Wwww.miningnorth.com, [www.miningnorth.com/mines](http://www.miningnorth.com/mines).

"Mapy.com." Mapy.com, 2025, [mapy.com/en/zakladni?l=1&source=osm&id=136390527&x=37.8252297&y=42.5071659&z=2](http://mapy.com/en/zakladni?l=1&source=osm&id=136390527&x=37.8252297&y=42.5071659&z=2). Accessed 21 Dec. 2025.

The Editors of Encyclopedia Britannica. "Willem Barents | Dutch Navigator." Encyclopædia Britannica, 16 June 2018, [www.britannica.com/biography/Willem-Barents](http://www.britannica.com/biography/Willem-Barents).

Demina, Liudmila L, et al. "Elemental and Mineral Composition of the Barents Sea Recent and Late Pleistocene–Holocene Sediments: A Correlation with Environmental Conditions." Minerals, vol. 10, no. 7, 30 June 2020, pp. 593–593, <https://doi.org/10.3390/min10070593>. Accessed 16 May 2024.

Britannica. "Siberia | Region, Asia | Britannica." Encyclopædia Britannica, 2019, [www.britannica.com/place/Siberia](http://www.britannica.com/place/Siberia).

“USGS Bulletin 2201-G: Petroleum Geology and Resources of the West Siberian Basin, Russia.” Pubs.usgs.gov, pubs.usgs.gov/bul/2201/G/.

Arctic Council. “The Arctic in a Changing Climate.” Arctic Council, 2024, arctic-council.org/explore/topics/climate/.

National Geographic. “Arctic | National Geographic Society.” Education.nationalgeographic.org, 20 May 2022, education.nationalgeographic.org/resource/arctic/.

Super User. “Permafrost - Arctic Portal.” Arcticportal.org, 2024, arcticportal.org/education/quick-facts/environment-and-science/3523-permafrost.

“FAQ 3.1: How Do Changes in the Polar Regions Affect Other Parts of the World? — Special Report on the Ocean and Cryosphere in a Changing Climate.” Ipcc.ch, Special Report on the Ocean and Cryosphere in a Changing Climate, 2015, [www.ipcc.ch/srocc/about/faq/final-faq-chapter-3/](http://www.ipcc.ch/srocc/about/faq/final-faq-chapter-3/).

“Arctic Ocean | EBSCO.” EBSCO Information Services, Inc. | Wwww.ebsco.com, 2024, [www.ebsco.com/research-starters/geography-and-cartography/arctic-ocean](http://www.ebsco.com/research-starters/geography-and-cartography/arctic-ocean).

National Oceanic and Atmospheric Administration. “Arctic Zone: Daylight, Darkness and Changing of the Seasons at the North Pole.” Wwww.pmel.noaa.gov, [www.pmel.noaa.gov/arctic-zone/gallery\\_np\\_seasons.html](http://www.pmel.noaa.gov/arctic-zone/gallery_np_seasons.html).

National Snow and Ice Data Center. “Arctic Weather and Climate.” National Snow and Ice Data Center, 2024, nsidc.org/learn/parts-cryosphere/arctic-weather-and-climate.

Kalina Velev. “Arctic Sea Ice Minimum Extent – Earth Indicator.” NASA Science, 26 Sept. 2025, science.nasa.gov/earth/explore/earth-indicators/arctic-sea-ice-minimum-extent/.

McCart, Dylan. “The History of Arctic Exploration.” Churchill Northern Studies Centre, 29 Nov. 2023, churchillscience.ca/the-history-of-arctic-exploration/.

“The Impacts of Arctic Ice Loss.” World Wildlife Fund, 2025, [www.worldwildlife.org/resources/explainers/six-ways-loss-of-arctic-ice-impacts-everyone/](http://www.worldwildlife.org/resources/explainers/six-ways-loss-of-arctic-ice-impacts-everyone/).

WWF. “Thawing Permafrost.” WWF Arctic, 2025, [www.arcticwwf.org/the-circle/stories/thawing-permafrost/](http://www.arcticwwf.org/the-circle/stories/thawing-permafrost/).

Raspotnik, Andreas. “Thawing Grounds, Rising Stakes: The Importance of Including Permafrost Emissions in Climate Policy.” The Arctic Institute - Center for Circumpolar Security Studies, Apr. 2025, [www.thearcticinstitute.org/thawing-grounds-rising-stakes-importance-including-permafrost-emissions-climate-policy/](http://www.thearcticinstitute.org/thawing-grounds-rising-stakes-importance-including-permafrost-emissions-climate-policy/).

WWF. “Arctic Connected | the Arctic’s Indigenous Communities under Threat.” WWF Arctic, 19 Dec. 2022, [www.arcticwwf.org/newsroom/features/arctic-connected-the-arctics-indigenous-communities-under-threat/](http://www.arcticwwf.org/newsroom/features/arctic-connected-the-arctics-indigenous-communities-under-threat/).

“Arctic Mineral Resources.” The Arctic Review, [arctic.review/economy/minerals-and-mining/](http://arctic.review/economy/minerals-and-mining/).

Issra.pk, 2025, [www.issra.pk/insight/2025/Growing-Geopolitical-Significance-of-the-Arctic/insight.html](http://www.issra.pk/insight/2025/Growing-Geopolitical-Significance-of-the-Arctic/insight.html).

Super User. “Exclusive Economic Zones of the Arctic (EEZ) - Arctic Portal.” Arcticportal.org, 2024, [arcticportal.org/education/quick-facts/governance-and-policies/3457-exclusive-economic-zones-of-the-arctic-eez](http://arcticportal.org/education/quick-facts/governance-and-policies/3457-exclusive-economic-zones-of-the-arctic-eez).

“Norway to Mine Part of the Arctic Seabed | Think Tank | European Parliament.” Europa.eu, 2024, [www.europarl.europa.eu/thinktank/en/document/EPRS\\_ATA\(2024\)757616](http://www.europarl.europa.eu/thinktank/en/document/EPRS_ATA(2024)757616).

Aten, Travis. “Norway Abandons Deep-Sea Mining in the Arctic until at Least 2029 - DSCC.” Deep Sea Conservation Coalition, 3 Dec. 2025, [deep-sea-conservation.org/norway-abandons-deep-sea-mining-in-the-arctic-until-at-least-2029/](http://deep-sea-conservation.org/norway-abandons-deep-sea-mining-in-the-arctic-until-at-least-2029/). Accessed 27 Dec. 2025.

Vladimir Koptelov. “Strategy for Denmark in the Development of the Arctic.” RussianCouncil.ru, 2020, [russiancouncil.ru/en/analytics-and-comments/analytics/strategy-for-denmark-in-the-development-of-the-arctic/?sphrase\\_id=237887328](http://russiancouncil.ru/en/analytics-and-comments/analytics/strategy-for-denmark-in-the-development-of-the-arctic/?sphrase_id=237887328). Accessed 28 Dec. 2025.

“Dragon on Ice: China’s Geostrategic Interests in the Arctic.” INSS, 25 Mar. 2025, [www.inss.org.il/publication/north-pole/](http://www.inss.org.il/publication/north-pole/).

Raspotnik, Andreas. “China’s Arctic Strategy and Hybrid Warfare: Targeting Governance and Strategic Responses.” The Arctic Institute - Center for Circumpolar Security Studies, 9 Dec. 2025, [www.thearcticinstitute.org/chinas-arctic-strategy-hybrid-warfare-targeting-governance-strategic-responses/](http://www.thearcticinstitute.org/chinas-arctic-strategy-hybrid-warfare-targeting-governance-strategic-responses/).

“About - International Arctic Science Committee.” iasc.info, 2015, [iasc.info/about](http://iasc.info/about).

Arctic Economic Council. “*Responsible Resource Development Working Group*.” Arctic Economic Council, <https://arcticeconomiccouncil.com/workinggroups/responsible-resource-development-working-group/>. Accessed 28 Dec. 2025.

### **Media Bibliography**

<https://www.eea.europa.eu/en/analysis/maps-and-charts/arctic-resources>

[https://admin.arcticwwf.org/app/uploads/2022/04/artboard\\_1-1-1536x1481.jpg](https://admin.arcticwwf.org/app/uploads/2022/04/artboard_1-1-1536x1481.jpg)