U.S. AIR FORCE

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ARCTIC RESOURCE COMPILATION

China and Russia's Involvement in the Arctic

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Preface

This report creates a catalog of resources for use on the topic “China and Russia’s Involvement in the Arctic.” This catalog of resources is in response to a request by the U.S. Air Force (USAF) Air University (AU) Academic Centers, USAF Culture and Language Center (AFCLC) at Maxwell Air Force Base (AFB), Alabama and is in support of the AFCLC mission.

The mission of the AFCLC is to serve as the USAF focal point for creating and executing programs that sustain career-long development of Linguistically, Regionally, and Culturally competent Total Force Airmen to meet the Service’s global mission. In addition to providing subject matter expertise and support for Air Force Language, Regional Expertise, and Culture (LREC) governance, the AFCLC accomplishes this mission by designing, developing and delivering: 1) LREC familiarization education to AU officer, enlisted, and accessions programs; and 2) pre-deployment training and training products.

As a Research Analyst for Metro Professional Services, the researcher has identified open source material on China and Russia’s Involvement in the Arctic by using multiple sources during his research. This catalog includes academic journal articles, books and other legitimate peer-reviewed, academic resources. Sources are categorized by topic and broken down into relevant sub-topics based on the request of the AFCLC representative or on the discernment of the researcher. Catalog entries include Title, Author, Source, Date and Content Abstract, Summary or Overview that gives the end user a sense of what the author has to say about the selected topic and sub-topic. **The text used in this compilation is taken verbatim from the source, and none of this information is intended to be viewed as a product of AFCLC or Metro Professional Services. Incorporation in this compilation does not constitute endorsement of the source by AFCLC.**

China's Involvement in the Arctic:

"China gains major Arctic foothold as Russia turns to Beijing more, report finds," Robert Fife and Steven Chase, The Globe and Mail, 7 February 2024 [1]
https://www.theglobeandmail.com/politics/article-china-arctic-russia-war/

Overview:

China is gaining a major foothold in the Arctic as Russia, facing a severe budget crunch from its military assault on Ukraine, increasingly relies on Beijing and unprecedented levels of Chinese corporate and state investment to develop the northern region.

Current & Relevant Information:

A new report by Strider Technologies, a leading U.S. strategic intelligence firm, says Russia has been forced to shift conventional defense spending away from the Arctic and to the war in Ukraine. In doing so, it has turned to China to help maintain its military and economic presence in the Arctic after years of seeking to limit Chinese involvement in the Far North.

Using proprietary data, Strider found that during the 18 months from January, 2022, to June, 2023, 234 Chinese-owned companies registered to operate in Russian-controlled Arctic territory, an 87-per-cent increase compared with registrations in the two years prior. As of June, 2023, 359 Chinese-owned companies operate in the region, Strider said, the result of a surge in investment over the last three years. Strider proprietary data are aggregated from across corporate, transaction, and open-source data sets.

Russia and China are also deepening their security ties, signing an agreement in April, 2023, to co-operate on maritime law enforcement. In August, 2023, they conducted joint exercises in the Bering Sea off the coast of Alaska – remaining in international waters. The Bering Sea is a gateway between the Arctic and Pacific oceans.

Chinese-Russian collaboration in the Arctic is a scenario Canada's military intelligence has warned MPs about. "I would definitely agree that if Russia and China were to co-operate in the Arctic, it would pose significant threats to Canada's ability to protect its sovereignty," Major-General Michael Wright, Commander of Canadian Forces Intelligence Command and Chief of Defence Intelligence, told the Commons defence committee in October, 2022, more than six months after Russia's assault on Ukraine began.

In response to Western sanctions, Russia has opened up the Arctic to China like never before, Strider said. This includes investment to develop Russia's Northern Sea Route, an alternative global shipping channel along the top of its mainland, and energy exploration.

“Our findings reveal a strategic pivot by Russia, marked by decreased government spending and a remarkable policy shift to include the People’s Republic of China [PRC],” said Eric Levesque, COO and co-founder of Strider. “This pivot underscores the diplomatic and economic isolation Moscow is experiencing in the wake of its invasion of Ukraine and growing reliance on the PRC for its economic and security goals.”

In releasing the report, Strider said “the escalation in activity is a stark departure from Russia’s previous efforts to limit PRC involvement in the region.”

“The PRC has established a major foothold in the region by providing investment and support Russia needs to further develop the Arctic while waging war in Ukraine,” it said.

China has helped Russia weather Western-led sanctions by providing Moscow with international banking services and buying its oil and other commodities. In February, 2022, just weeks before Russia’s all-out attack on Ukraine, Chinese President Xi Jinping and Russian President Vladimir Putin met to inaugurate what they called their “friendship without limits” partnership.

In October, 2022, Canada’s top soldier, Chief of the Defense Staff General Wayne Eyre, predicted Russia would grow increasingly dependent on China as the Ukraine war dragged on, and fall under its sway, becoming “much more of a vassal state” of Beijing’s.

China, which has declared itself a near-Arctic state, wants to use the Northern Sea Route through Russia’s Arctic to import energy and export goods. If Sweden succeeds in its bid to join the North Atlantic Treaty Organization, Russia would be the only non-NATO country in the Arctic.

Strider data also show increasing Chinese involvement in Russian resource-development projects, especially in liquefied natural gas, mineral extraction and infrastructure. Beijing stepped in, for example, to provide crucial technology, including gas turbines, when the Biden administration imposed sanctions to try to kill Russia’s Arctic LNG 2 project in northern Siberia.

In 2023, China Communications Construction Company (CCCC), a massive state-owned conglomerate, signed a deal with Russian Titanium Resources for mineral exploration and to expand the Indiga deep-water port and the Sosnogorsk-Indiga railway. Back in 2018, Canada blocked CCCC from acquiring Aecon, one of this country’s largest construction companies, on national-security concerns.

At least 11 ships transported Russian crude oil to China through the Northern Sea Route in 2023, up from one trial voyage in 2022. As sea ice melts due to climate change, Arctic waters are an increasingly attractive shipping route between the Atlantic and Pacific. The Arctic thoroughfare can cut travel time for vessels sailing between Asia and Europe.

Strider said the number of private-sector investors in Kremlin-backed special economic zones in the Arctic increased to more than 4,000 in 2023, from approximately 230 in 2016.

The Russians have built modern military bases in their Arctic region and are building a new fleet of 13 polar icebreakers, while China has two medium-strength icebreakers and is building an even larger, more powerful vessel.

Beijing's activities in the Far North are becoming of increasing concern to Washington and Ottawa. Beijing's designs on minerals in Canada's North in part prompted the development of a joint U.S.-Canada strategy to reshape global critical mineral supply chains and reduce reliance on China. Beijing has moved aggressively in recent years to tighten its control of rare earth minerals, which are crucial for manufacturing high-tech and military products.

In December, 2020, Ottawa rejected a takeover of an Arctic gold mine that would have given a Chinese state-controlled company a foothold in the Northwest Passage. Ottawa turned down Shandong Gold Mining Co. Ltd.'s purchase of junior miner TMAC Resources Inc. over concerns about national security in the Arctic.

The mine site is a little more than 100 kilometers from a NORAD North Warning System radar station in Cambridge Bay, Nunavut, part of a chain of installations across the North that gather information and transmit it to military operation centers.

"China Is Determined To Push Its Way Into the Arctic," Daniel Kochis, The Heritage Foundation, 11 August 2023 [2]
https://www.heritage.org/asia/commentary/china-determined-push-its-way-the-arctic

Overview:

Key Takeaways:

1. On Friday, August 4, eleven Chinese and Russian naval vessels sailed near the U.S. Aleutian Islands in Alaska.
2. China has been ramping up its efforts to push its way into the Arctic for years.
3. Russia must now rely upon China to provide the technology and funding to develop energy and mining projects in its Arctic region.

On Friday, August 4, eleven Chinese and Russian naval vessels sailed near the U.S. Aleutian Islands in Alaska, leading the Navy to dispatch four destroyers and a P-8 maritime patrol aircraft to monitor the formation. "This is unprecedented," remarked U.S. Senator Dan Sullivan (R-AK), "not just for Alaska, but for America to have 11 warships jointly being operated by the Chinese and Russians—who are increasingly working together—essentially doing freedom of navigation and navigation operations incursions into Alaska's area."

Current & Relevant Information:

The Arctic in Focus

The U.S. is an Arctic nation as much as it is an Atlantic or Pacific one. To defend American sovereignty in the high north, policymakers must not only do more to raise public awareness of security threats but also work to ensure that the U.S. is properly resourced to defend its national sovereignty. One immediate step that would help on both counts is for the Select Committee on the Chinese Communist Party to hold a public hearing on the threat from China in the region.

After all, this weekend's joint flotilla is not the only recent blinking red wake up call for the U.S. in the Arctic. In July, China's Polar Research Institute made the startling announcement that it plans to deploy listening devices "on a large scale in the Arctic Ocean," having successfully field-tested the technology. That's a serious cause for concern, considering that China has long utilized its supposed "scientific" work in the high north as a smokescreen for increasing its military awareness there.

In 2018, for example, China's Polar Research Institute sought to purchase or lease an airport at Kemijärvi, in Finland's Lapland region. The proposal was nixed after local authorities inquired as to the Ministry of Defense's views. Chinese plans called for an extension of the runway to operate research flights to the north pole. Kemijärvi's mayor explained: "The flight route would have also made observations possible over the Arctic Ocean and the Northeast Passage, which is an area of interest to both China and Russia." Furthermore, the flight path would have taken Chinese planes conveniently over the Rovajärvi firing range, Finland's main artillery range (and the largest in Europe) which just happened to be located west of Kemijärvi.

Not long after that incident, in 2019 the U.S. Department of Defense warned that "civilian research could support a strengthened Chinese military presence in the Arctic Ocean," and even went as far as to say that this "could include deploying submarines to the region as a deterrent against nuclear attacks." This warning directly reflects research published in Chinese journals on submarine operations in the Arctic, including one article titled: "Peridynamic Model for Submarine Surfacing through Ice."

That's why these new Chinese listening devices caused so much alarm: They will almost certainly be used to track American and allied submarines. Consider that the once secret sound surveillance system—a series of underwater acoustic arrays for tracking Soviet submarines that gave the U.S. and its allies a crucial edge during the Cold War—was "built under the cover of civilian oceanographic research." China seems to be taking a page out of the same book.

The truth is, China has been ramping up its efforts to push its way into the Arctic for years. Last fall, at around the same time that Chinese spy balloons were starting reconnaissance over Alaska, Canada found four Chinese spy buoys in their Arctic

waters. These buoys could have been being utilized to map the seabed, monitor ice thickness, or monitor submarine activity.

My organization raised concerns at the time over Chinese ambitions in the Arctic. But the Biden Administration didn't heed our warnings. Now, Washington's passive approach combined with the rapidly expanding gulf between China and its junior partner Russia seems to have convinced Xi that the time is ripe to push for a greater presence in the Arctic.

But that doesn't change the fact that China's closest point to the Arctic Circle is more than 800 nautical miles away. Which is to say that China, despite it's absurd claims to be a "near-Arctic state, is naturally limited by the simple fact that it is not an Arctic nation. Because of this, Beijing has utilized a scatter shot approach to increasing its activity in the Arctic region: trying everything from scientific cooperation (whether genuine or not) and becoming an observer in the Arctic Council in 2013 (the world's primary multilateral forum concerned with the Arctic region) to seeking out Arctic investments and building new icebreakers (China already has double the number of icebreakers as the U.S).

These efforts have produced mixed results. Power in the Arctic Council rests with member states not observers, and the forum itself faces an uncertain future after Russia's second invasion of Ukraine. On the scientific road to the Arctic, China has likewise stumbled, only recently beginning to again send personnel to research stations located in Norway's Svalbard archipelago, and Karholl, Iceland after a lengthy hiatus. Finland and Sweden recently ended scientific cooperation with China in their northern regions; similarly a 2017 Chinese proposal to build a satellite dish antenna ground station in Greenland went nowhere. In 2020, the Canadian government ended an attempted Chinese takeover of the Hope Bay gold mine in the Nunavut territory over security concerns. Chinese investments in nearly all the Arctic nations have fallen flat.

The glaring exception is investment in the Russian Arctic. For Beijing, all roads to Arctic influence run through Moscow, and over the past decade China has spent nearly $90 billion investing in Arctic resource extraction, mostly with its neighbor to the north. So far, however, The Arctic is one of the areas where Russia has been able to retain "the upper hand in its dealings with China," and remains "wary of allowing China undue access to a region it deems critical to national security."

But as the war against Ukraine drags on, Moscow's position is deteriorating by the day. Blocked from working with western companies, Russia must now rely upon China to provide the technology and funding to develop energy and mining projects in its Arctic region. In return, Beijing reaps a multitude of rewards: a reliable stream of cheap energy, political influence in Moscow, and lucrative construction contracts for Chinese companies. All that adds up to an invaluable toe hold in the Arctic for Beijing.

This latest incident in the Aleutian Islands and the Polar Institute's plans to install a series of listening devices only underscores what we already knew: China is feeling bullish about its ability to push its way into the Arctic. During this scorching hot August, U.S. policymakers would do well to sit up and take notice of what's going on in the ice-cold north.

"China's Increasing Role in the Arctic," Luke Coffey, The Heritage Foundation, 11 February 2020 [3] https://www.heritage.org/global-politics/report/chinas-increasing-role-the-arctic

Summary:

America's interests in the Arctic region will only increase in the coming years. As other nations devote resources and assets in the region to secure their national interests, America cannot afford to fall behind. The U.S. must champion an agenda that advances its national interest and devotes the required national resources to the Arctic region. With the focus on China's dubious and aggressive claims of sovereignty in the South China Sea, massive infrastructure investments in Central Asia and Africa, and trade war with the U.S., it is easy to overlook another aspect of Beijing's activities in the Arctic. The Administration must continue to monitor China's activity in the region, promote economic freedom in the Arctic, and refuse to recognize China's self-proclaimed status as a "near Arctic-State."

Key Takeaways:

1. The U.S. cannot afford to fall behind in the Arctic and should pursue an Arctic agenda that advances growing U.S. national interests and thwarts Chinese aims.
2. China seeks to be an Arctic actor for many reasons: to access new shipping routes, increase economic influence, and lay the groundwork for future military activity.
3. The Trump Administration should continue to raise awareness of China's questionable ambitions in the region and check Beijing's efforts to increase its regional influence.

Current & Relevant Information:

America's interests in the Arctic region will only increase in the coming years. As other nations devote resources and assets in the region to secure their national interests, America cannot afford to fall behind. The U.S. must champion an agenda that advances its national interest and devotes the required national resources to the Arctic region. With the focus on China's dubious and aggressive claims of sovereignty in the South China Sea, massive infrastructure investments in Central Asia and Africa, and trade war with the U.S., it is easy to overlook another aspect of Beijing's activities in the Arctic. The Administration must continue to monitor China's activity in the region, promote economic freedom in the Arctic, and refuse to recognize China's self-proclaimed status as a "near Arctic-State."

“Near Arctic State”

In the simplest terms, China sees the Arctic region as another place in which to advance its economic interests and expand its diplomatic influence. As a non-Arctic country, China is mindful that its ambitions in international Arctic institutions are naturally limited, but this has not stopped Beijing from increasing its economic presence in the region.

China’s Arctic strategy published in 2018 offers a useful glimpse into how Beijing views its role in the region. Running 5,500 words in its English translation, the strategy is littered with all the Arctic-related buzzwords, such as “common interests of all countries,” “law-based governance,” “climate change,” and “sustainable development.” The irony is not lost on observers of the South China Sea, where China has shunned international norms to claim sovereignty, or the fact that China is the world’s largest emitter of greenhouse gases.

Even though China’s closest point to the Arctic Circle is more than 800 nautical miles away, Beijing refers to itself as a “near Arctic State”—a term made up by Beijing and not found in the lexicon of Arctic discourse. In fact, extending Beijing’s logic to other countries would mean that Belarus, Estonia, Germany, Ireland, Kazakhstan, Latvia, Lithuania, the Netherlands, Poland, and the United Kingdom are also “near Arctic” states. These are hardly the countries that one imagines when thinking about the Arctic. As Secretary of State Mike Pompeo has said: “There are Arctic states, and non-Arctic states. No third category exists. China claiming otherwise entitles them to exactly nothing.”

China’s Dubious “Near Arctic State” Claim

SOURCE: Heritage Foundation research. IB5036 ☎ heritage.org

China’s Motivation

But even with its self-professed and exaggerated role in the Arctic, China does have legitimate interests in the region. After all, China is a global trading nation with the world's second-largest economy. It holds a permanent seat on the U.N. Security Council. China is motivated to be an Arctic actor for five primary reasons:

1. **New Shipping Routes.** China is unique in modern times in being a continental power that is almost entirely dependent on the sea for food and energy New sea-lanes in the Arctic have the potential to play an important role when it comes to diversifying China's import dependencies.

2. **Economic Influence.** China sees itself as a global power, and the Arctic is just another region in which to engage. China hopes to complement its Belt and Road Initiative (BRI)—a vast trading network being constructed by China on the Eurasian landmass and beyond—by investing in and constructing major infrastructure projects along the emerging sea-lanes in the Arctic.

3. **Scientific Research.** Whether it is for China's sea-based nuclear deterrent, natural resource extraction, or commercial shipping, research on polar high-altitude atmospheric physics, glacial oceans, bioecology, and meteorological geology is important for China's strategic interests. As a signatory of the Svalbard Treaty, China is allowed to conduct scientific research on Svalbard and has done so since 2004 at its Arctic Yellow River Station located in Ny Ålesund. China has a total of eight scientific research stations in the Arctic.

4. **Laying the Groundwork for Future Military Activity in the Region.** Currently, China's military involvement in the Arctic is limited. The People's Liberation Army Navy has never sailed into Arctic waters. However, the director of the Norwegian Intelligence Service, Lieutenant General Morten Haga Lunde, stated recently that "in the long term, we must be prepared for a clearer Chinese presence also in our neighboring areas." The Pentagon recently warned "that China could use its civilian research presence in the Arctic to strengthen its military presence, including by deploying submarines to the region as a deterrent against nuclear attacks."

5. **Access to Minerals, Fishing, and Other Natural Resources.** China also sees the Arctic region as a way to satisfy its growing demands for energy and food. China is a significant investor in Russia's Yamal liquefied natural gas (LNG) project. Beijing received the first shipment of Yamal LNG in July 2018 and will import 3 million tons of Yamal LNG every year beginning in 2019. The dietary needs of China's growing population can be met partly by increased fishing in the Arctic region.

For now, however, China's primary motivation in the Arctic is economic. In its Arctic strategy, China also coined the term "polar silk road." The goal of the Polar Silk Road is to compliment China's BRI by investing in and constructing major infrastructure projects along the emerging sea-lanes in the Arctic.

America's Backyard

China is also becoming more involved in America's backyard with an eye to investing in Greenland and Iceland, although it must be pointed out that in the case of Greenland, China's role is often greatly exaggerated. For example, China has a license for only one mine in Greenland.

The Chinese embassy in Reykjavik can accommodate a staff of up to 500 people, underscoring the importance that China places on its presence in Iceland. The U.S. embassy in Reykjavik has about 70 people. In 2013, tiny Iceland, with a population of slightly more than 330,000 people (the population size of a small Chinese town), became the first European country to sign a free trade agreement (FTA) with China. However, Iceland has so far refused formal membership in China's BRI.

Raising Awareness

The Trump Administration has used every available opportunity on the international stage to raise awareness of Chinese ambition in the Arctic. During a recent trip to Iceland, Vice President Mike Pence made Chinese economic activity in the Arctic one of the focal points of his visit. During the 2019 Arctic Council Ministerial meeting, Secretary Pompeo devoted a sizable amount of his speech to highlighting the threat that China poses to U.S. interests in the region, saying that "the United States and Arctic nations welcome transparent Chinese investment that reflect economic interests, not national security ambitions." To build on this awareness, the U.S. should:

- **Continue to raise awareness of China's questionable ambitions.** China has declared itself a "near Arctic state"—a made-up term that previously did not exist in Arctic discourse. The U.S. should work with like-minded partners in the Arctic Council to raise legitimate concerns about China's so-called Polar Silk Road ambitions.

- **Check China's desire to influence the Arctic Council.** The U.S. should make sure that China does not try to exceed what it is allowed to do under its status as an observer in the Arctic Council.

- **Keep an eye on China's activities in America's backyard.** So far, China's motivation in Greenland and Iceland seems to be more about economics and less about security, but considering the massive debt that China has left in Sri Lanka, Djibouti, and elsewhere, it is only reasonable to question China's motivations in the Arctic.

- **Promote economic freedom in the Arctic.** Economic freedom spurs prosperity, respect for the rule of law, jobs, innovation, and economic sustainability in the Arctic region. Most important, economic freedom can help to keep the Arctic stable and secure. It should be the focal point of broader U.S. engagement in the region.

Preparing for Peace

The U.S. needs to champion an agenda that advances the U.S. national interest and devotes the required national resources to the region. These measures are not preparations for armed conflict. They are preparations for a peaceful future. With the Arctic becoming increasingly important for economic and geopolitical reasons, now is not the time for the U.S. to turn away from its own backyard.

"China, Russia Quietly Expanding Arctic Partnership, Says Panel," John Grady, US Navy Institute News, 11 October 2022 [4]
https://news.usni.org/2022/10/11/china-russia-quietly-expanding-arctic-partnership-says-panel

Overview:

China is subtly installing a larger presence in the Arctic through an extensive partnership with Russia in areas ranging from multi-use ports and airfields to energy extraction, Arctic security experts said Tuesday.

The partnership also includes scientific research and sharing intelligence, surveillance and reconnaissance data. However, this increased interest and activity has not yet led to China establishing a base in Russia.

Current & Relevant Information:

Beijing's attention remains focused on Taiwan and the South China Sea, said Liselotte Odgaard, a professor at the Norwegian Institute for Defense Studies. China has "little interest in establishing a military presence" in the Arctic, at least for now, she said.

Marc Lanteigne, an associate professor at UiT the Arctic University of Norway, said China still is a newcomer to the Arctic and is learning by joining other nations in many activities in the region. Beijing "wants very much an open Arctic" where it can seek out business for the Polar Silk Road that goes beyond Russia and ensure a supply of liquified natural gas.

But the effects of the pandemic and economic headwinds that Beijing is facing have caused a slowdown in basic operations in the region, he added.

"The Arctic is not the South China Sea," where China has historic ties and bases, and where Beijing's territorial claims have been more aggressive, Lanteigne said at the Hudson Institute event.

"China would be more than willing to help" Russia in developing a region that it sees as its top economic and security priority by building deep water ports and rail hubs and digitizing the waters for commerce and defense, Odgaard said.

But when China looks at the Northern Sea route now, Beijing sees “too much sea ice” to make it immediately valuable for commercial use, she said. To date, China has not scheduled any transits using the route for the coming year.

The panelists compared an open Northern Sea route to the Suez or Panama canals – if free of ice that would cut weeks off shipping times from Asia to Europe.

Odgaard said the two nations have “taken the first step in integrating satellite navigation systems” that have great value militarily. The sharing of intelligence is important for Russia to get better control of entry to the Barents Sea and for Moscow’s Northern Fleet submarine movements to and from the Atlantic.

However, even in an era of closer cooperation between the two powers, Lanteigne doubted Moscow would allow China to base submarines in Russia’s Arctic.

“I don’t think you’ll find a Chinese military base” in the Russian Arctic, Mike Pompeo, former secretary of state, said during the question and answer session following his keynote remarks. But Pompeo didn’t rule out a shared presence with the Kremlin in the future.

Kay Bailey Hutchison, former United States permanent representative to NATO during the Trump administration, said China is “quietly” establishing itself as a “near-Arctic state” and wants a seat at the table in deciding the region’s future. “This is part of a strategy,” similar to one Beijing employed in the South China Sea, to advance territorial ambitions far from the mainland.

The panelists noted there are other nations – Japan, South Korea, Singapore, France and the United Kingdom – that have similar long-term economic and military interests in the Arctic but do not fall within its geographic boundaries.

None of those countries are members of the Arctic Council. Eight nations, including the United States and Russia, make up the council. When Sweden and Finland are admitted to NATO, all but Russia will belong to the security alliance.

The panelists agreed that this changes the security situation in the Arctic, particularly in light of Russia’s invasion of Ukraine in February and China’s increasingly bellicose actions threatening Taiwan. The region is also the subject of a newly-released American strategy to complement NATO’s. The strategy calls for an increased U.S. military presence in Alaska and in NATO nations, expanded military exercises and a commitment to rebuilding its icebreaking fleet.

But how quickly NATO nations can respond with equipment needed to operate in the Arctic is an open question.

“We need Arctic frigates; we need submarines; we need aircraft” to demonstrate NATO’s commitment, Odgaard said.

"We need rules of law in the region" that apply to Russia and China as well as democratic nations, Pompeo said. The rules emphasize respect for other nations' sovereignty and transparency. "We can lead in the Arctic; we have done it before."

1. Military and Security:

"The Three-Fold Path of the Snow Dragon: China's Influence Operations in the Arctic," Christopher Barich, Journal of Indo-Pacific Affairs, 3 October 2022 [5]
https://www.airuniversity.af.edu/JIPA/Display/Article/3171142/the-three-fold-path-of-the-snow-dragon-chinas-influence-operations-in-the-arctic/

Abstract:

This article argues that, since 2013, China's involvement in Arctic affairs has accelerated, and Beijing has begun to assert its political and economic ambitions more formally in its white papers, Vision for Maritime Cooperation Under the Belt and Road Initiative, China's Arctic Policy, and China's National Defense in the New Era. Simultaneously, China has been conducting influence operations targeting Arctic governance regimes, scientific research, and economic investment in pursuit of long-term strategic objectives. These Chinese influence operations utilize the strategy of the "three warfares"—public opinion warfare, psychological warfare, and legal warfare—to set the conditions such that the consequences, the attainment of long-term strategic objectives, are a natural outcome from its engagement. China's three warfares strategy is designed to cultivate influence through governance, scientific, and economic vectors to construct, support, and set the conditions for the emergence of political power and lay the groundwork for future operations in the Arctic.

Current & Relevant Information:

In 2005, the People's Republic of China (PRC) first released public statements indicating its aspiration to become a polar great power with the ability to project influence and power globally from the Arctic to Antarctica. In 2013, Chinese president Xi Jinping announced the One Belt, One Road initiative, an ambitious transnational infrastructure investment and construction program that has since become known as the Belt and Road Initiative (BRI). In 2017, the PRC published Vision for Maritime Cooperation Under the Belt and Road Initiative, laying out Beijing's intention to establish a maritime economic passage to link mainland China to Europe via the Arctic Ocean. In 2018, the PRC announced its ambition to establish a trans-Arctic shipping route, called the Polar Silk Road (PSR), as part of the BRI. In 2020, Beijing assessed the Arctic region as a "global strategic commanding heights" and an important passage of "geostrategic value." The PRC utilizes the "three warfares" strategy—public opinion warfare, psychological warfare, and legal warfare—to conduct influence operations in the Arctic. For the North, the Chinese enterprise of influence operations focuses on three overlapping Arctic areas of interest: the participation in Arctic affairs and governance, scientific research

activities and expeditions, and economic investment in critical infrastructure along the PSR. The purpose of these influence operations is to promote narratives of China as an important stakeholder in Arctic affairs, committed to scientific collaboration, research and exploration in the Arctic, and investment in the economic development and prosperity of all Arctic states and that China should be considered an equal partner as a near-Arctic state. These international and domestic narratives, propagated through repetition and presence, aim to secure Beijing a greater political economic advantage, to secure and maintain access to Arctic natural resources, and to shape and align Arctic states to China's interests. The purpose of this article is to frame Chinese influence operations in the Arctic through the concept of the three warfares strategy and understand how these operations serve China's Arctic narratives, support wider political and economic interests, and further advance long-term security and development strategic objectives. To that goal, the article will provide essential context involving official positions and policies, followed by an introduction of how China employs the three warfares into its priority Arctic national interests.

Key Policies and Positions

China's Defense Strategy

In 2019, the PRC published the China's National Defense in the New Era white paper, outlining defensive national security policies and key objectives in order to safeguard China's sovereignty, security, and development interests. Three key national defensive aims in the white paper are of particular importance for understanding Chinese influence operations in the Arctic: (1) the safeguarding of maritime rights and interests, (2) safeguarding overseas interests, and (3) supporting economic and sustainable development. According to the white paper, the Chinese Communist Party (CCP) established development milestones for People's Liberation Army (PLA) to achieve that involve requirements to improve strategic capabilities by 2020, complete modernization by 2035, and transform into a "world-class" military by the centennial founding of the PRC in 2049.

The PLA is not an institution outside of the CCP, such as the military in the United States system is, rather the PLA an extension of the Party. The PLA function is to protect and preserve the dominance of the CCP inside China, to pursue the Party's directives and interests, and to achieve the CCP's strategic objectives. In the white paper, the CCP has identified overseas interests as a crucial part of China's national interests. The mission of the PLA is to effectively protect the security, rights, and interests of overseas Chinese citizens, organizations, and institutions by addressing deficiencies in overseas operations and support, build maritime forces, develop overseas logistical facilities, and enhance capabilities to accomplish CCP strategic objectives. According to the PRC, the PLA also conducts overseas support operations focused on vessel protection, maintains the security of strategic sea lines

of communication, provides overseas noncombatant evacuation operations, and protects maritime rights throughout the globe.

China's Arctic Strategy

In 2018, the PRC published China's Arctic Policy white paper, outlining China's policy goals, principles, policies, and positions on Arctic affairs, governance and international cooperation, scientific exploration, and exploitation of resources. The white paper describes China as an important stakeholder in Arctic affairs; committed to scientific collaboration, research, and exploration in the Arctic; and invested in the economic development in all Arctic states and asserting China should be considered an equal partner as a near-Arctic state. Changing conditions in the Arctic, claims the white paper, have a direct impact on China's climate, ecological environment, and economic interests; thus, Beijing proposes China should have rights and privileges in the Arctic analogous to those nations having territories within the Arctic Circle. The PRC assessed the current situation in the Arctic "goes beyond its original inter-Arctic States or regional nature, having a vital bearing on the interests of States outside the region and the interests of the international community as a whole, as well as on the survival, the development, and the shared future for mankind."

According the Arctic Narratives and Political Values: Arctic States, China, and NATO report, the PRC assesses Arctic issues have global implications and international impacts, and "States from outside the Arctic region do not have territorial sovereignty in the Arctic, but they do have rights in respect of scientific research, navigation, overflight, fishing, laying of submarine cables and pipelines in the high seas and other relevant sea areas in the Arctic Ocean, and rights to resource exploration and exploitation in the Area, pursuant to treaties such as UNCLOS [United Nations Convention of the Law of the Sea] and general international law." Thus, Beijing holds Arctic exploration, exploitation, and development of Arctic natural resources as key strategic objectives for China's future energy, economic, and development needs, while portraying China as having "shared interests with Arctic States and a shared future with the rest of the world in the Arctic."

Polar Silk Road

In 2013, President Xi announced the ambitious and global initiative currently referred to as the BRI. The PRC stated goal of the BRI is to promote policy coordination, the connectivity of infrastructure and facilities, "unimpeded" trade, financial integration, and "people-to-people bonds." China encourages countries along the BRI routes to "align their strategies," to further "pragmatic cooperation", and to build "unobstructed, safe and efficient maritime transport channels." The BRI promotes cross-border marine spatial planning to establish common principles, implement technical standards, and for the PRC to provide technical assistance to partner countries.

In 2013, China was approved for observer status by the Arctic Council. Since 2013, China's involvement in Arctic affairs has accelerated, and Beijing has begun to

assert its political and economic ambitions more formally in published government documents. In 2017, the PRC published Vision for Maritime Cooperation Under the Belt and Road Initiative, which stated Beijing's priority to establish a maritime economic passage to link China to Europe via the Arctic Ocean. In 2018, the China's Arctic Policy white paper announced the establishment of the PSR as part of the BRI. The PSR focuses on the development of two Arctic shipping routes: the Transpolar Sea Route (TSR), bisecting the Arctic Ocean from the Chukchi Sea to the Greenland Sea, and, most predominately, the Northern Sea Route (NSR) along the northern coast of Russia from the Chukchi Sea to the Barents Sea. Three strategic objectives for the PSR aim to achieve, to include "sustaining economic development," "[d]efending national sovereignty, security, and development interests," and "[r]eforming the global system to align with PRC interests."

Sino-Arctic Shaping Efforts

China's Influence Operations in the Arctic

According to the Army Techniques Publication 7-100.3: Chinese Tactics, the PRC strategic objectives can be understood in two basic categories: security and development. The PLA's security objectives include protecting the CCP, defending China's territorial sovereignty, and deterring attacks against China, Chinese peoples, and Chinese interests by state and nonstate actors. The PLA development objectives include the protection of PRC economic interests, ensuring freedom of navigation for Chinese military and civilian vessels, procuring natural resources, and establishing new markets. The PRC influence operations in the Arctic are best understood through the three warfares strategy to support, reinforce, and achieve the PRC strategic objectives.

According to Stephan Halper in China: The Three Warfares, a report to the Office of the Secretary of Defense, these warfares are three mutually reinforcing strategies focused on public opinion warfare, psychological warfare, and legal warfare. Public opinion warfare represents information operations designed to support PRC interests and operations by shaping public discourse, influencing political positions, and building international sympathy. Psychological warfare is defined as information operations targeting a specific audience intended to influence that audience's behavior and are integrated deception operations into conventional and unconventional warfare. Legal warfare comprises information operations using domestic and international laws, rules, and norms designed to support PRC political and economic interests through valid legal frameworks and unbalance potential opponents. These Three Warfare strategies are indirect methods are designed to influence a targeted population's perceptions, assessments, and decision making, to facilitate actions by the targeted population that are favorable to China's long-term strategic objectives.

In 2005, the PRC first released public statements indicating its aspiration to become a polar great power with the ability to globally project influence and power from the Arctic to Antarctica. According to leading China polar expert Anne-Marie Brady, “China’s thinking on the polar regions and global oceans demonstrates a level of ambition and forward planning that few, if any, modern industrial states can achieve.” In 2020, the PRC published Science of Military Strategy, identifying the two polar regions as belonging to the “global strategic commanding heights” and as passages of important geostrategic value. In the Arctic, establishing the presence of the PRC and maintaining access to the region are key political and economic goals Beijing aspires to reach as long-term strategic objectives by 2049.

The Three Warfares in the Arctic

Since the introduction of the three warfares into the PLA lexicon in 2003, this strategy has advanced considerably and a useful theoretical framework for analyzing China influence operations in the Arctic. According to a recent report by the China Aerospace Studies Institute, Propensity, Conditions, and Consequences: Effective Coercion Through Understanding Chinese Thinking, the Chinese strategic approach to strategy is to set the conditions such that the consequences, the attainment of long-term strategic objectives, are a natural outcome from the inherent potential of the situation. China’s engagement in the Arctic is designed to cultivate influence through governance, scientific, and economic vectors, in order to build political power and lay the groundwork for future operations in the region. The three warfares are intended to construct, support, and set the conditions for the emergence of political power. This slowly emerging political power allows for the long-term development of forms of control—coercive capability, consensual inducements, and pursuit of legitimacy—in the Arctic.

Geopolitical

China’s three warfares strategy represents a tool meant to facilitate global Sino ambitions through specialized regional application, including the Arctic. Beijing’s fundamental position on its need to be an equal governance actor in the Arctic exists through its global equities (great-power access) and concerns (climate-change impacts). Chinese global and Arctic legitimacy cannot be separated according to the regime, which presents advantageous geopolitical circumstances for China. China’s ability to effectively compete in various sectors throughout the world allows Beijing to set conditions for additional influence that is often difficult to contest. For example, the PSR policy involving the Arctic is largely an extension of the multiregional BRI.

The three warfares strategy is most pronounced in the geopolitical arena, by penetrating bilateral and multilateral institutions, governance regimes, and decision making to facilitate positive legal, psychological, and public opinion effects to set conditions for China’s long-term strategic objectives in the Arctic. Since 2013, Beijing has increased China’s participation in Arctic affairs and governance as an observer

to the Arctic Council; as a partner in the Arctic Circle Forum, hosting the organization's annual assembly in Shanghai in 2019; as a member of the Arctic Economic Council; as chair of the Pacific Arctic Group, organized under the International Arctic Science Committee; as a full member of the North Pacific Coast Guard Forum; and through China's permanent seat on the UN Security Council. China's engagement in organizations, inside and outside the Arctic region, facilitates the building of bilateral and multilateral relationships that provide opportunities for generating influence and political power. In 2018, the Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean (the CAO agreement) was negotiated and implemented among the Arctic coastal states of Canada, Denmark, Norway, Russia, and the United States and non-Arctic states with distant-water fishing capacity, China, the European Union, Iceland, Japan, and South Korea, aligning with Chinese policy positions and preferences outlined in China's Arctic Policy white paper. The CAO agreement is an example of legal warfare setting conditions for future operations in the Arctic with psychological and public opinion effects enabling those future operations. China's participation and ratification of the CAO agreement consolidated Beijing's long-term position in Arctic fisheries regimes and prevented restrictions on Chinese marine scientific research, while nurturing its environmental profile and strengthening perceptions of China as a power that can legitimately pursue scientific advance in the Arctic.

Additionally, China gains leverage as a responsible fisheries actor in the Arctic for the purposes of offsetting and/or distracting from other contested regions. At the very least, China establishes the official position of the state, which allows Beijing to maintain a position that Chinese-involved illegal, unreported, and unregulated (IUU) fishing violations are a substate actor issue. China's membership to the agreement yields other three warfares benefits, too. Through a multitude of working groups, task forces, and expert groups, Beijing is able to conduct influence operations targeting the bilateral and multilateral decision-making regimes that have positive psychological and public opinion effects that promote China's near-Arctic state narrative, legitimize the PRC's participation in Arctic affairs as an important stakeholder, and shape the policy discussions to achieve Chinese interests. As far as Chinese society is concerned (public opinion), the regime is successfully fulling its duties as required by the self-proclaimed Middle Kingdom. Contrary to popular (Western) belief, most Chinese are generally satisfied with the geopolitical performance of Beijing. The Arctic regional pursuits of China—geopolitically—continue to fit within the larger national sentiment also. Lastly, China's strongest psychological warfare component geopolitically manifests through its consistent use of "peace" overtones involving its interests. Such a premise presents difficulties for competitors to respond with counternarratives—by design. For the Arctic and its notable characteristic of cooperation, China's "peaceful" pursuits could be particularly problematic for the West.

Scientific Research

The three warfares strategies are the most subtle in the realm of scientific research, by maintaining China's presence in the Arctic region through expeditions, facilities, and collaboration with Arctic states, Beijing slowly develops positive psychological and public opinion effects inside and outside the region to set the conditions for legal participation in the geopolitical arena and support China's long-term strategic objectives in the Arctic. Public opinion, legal, and psychological aspects of the three warfares strategy have been shaped by mostly contemporary Arctic-related developments. In 1993, China purchased an icebreaker from Ukraine, upgraded the vessel for polar conditions, and named it the Xue Long, translated as the Snow Dragon. In 1999, China launched its first national scientific research expedition to the Arctic into the Bering and Chukchi Seas. In 2019, a second polar-capable icebreaker, the domestically built Xue Long 2, entered into service, and China is reportedly planning to build a third polar-capable icebreaker. Since 1999, the Chinese National Arctic Research Expeditions (CHINARE) have conducted 12 expeditions into the Arctic, with the Xue Long and Xue Long 2 as the primary research vessels. In 2004, China built its first Arctic research center, the Yellow River Station, in Ny-Ålesund, Norway. Since 2004, China has built a satellite ground receiving station in Kiruna, Sweden, in 2010; a second remote-sensing satellite ground station near Kiruna in 2016; and the China–Iceland Arctic Science Observatory station in Kárhóll, Iceland, in 2018. Additionally, China unsuccessfully pursued scientific research stations in Canada and Greenland.

China's scientific development interests invest heavily in bilateral and multilateral cooperation, focusing significantly in forums that allow for non-Arctic state participation, that can bolster China's image as an extra-regional Arctic power protecting the common interest, raise its environmental profile, and legitimatize its participation in the Arctic governance regimes. Public sentiment and academic commentary within the PRC highlights the importance of China as a scientific and technological power that must play an active, preemptive, and vigilant role in exploration, exploitation, development, and governance in Arctic affairs. China's science diplomacy is an example of psychological and public opinion warfare setting conditions for future operations in the Arctic with legal effects enabling legitimization for those future operations. Through scientific exploration and cooperation, Beijing can conduct influence operations utilizing its scientific expedition platforms and research facilities to normalize China's presence in the Arctic, to gain acceptance or indifference from Arctic states to its presence in the region, and to solidify the PRC's self-narratives as an important stakeholder and near-Arctic state.

Gaining increased access into the Arctic for scientific purposes remains an important regime endeavor and facilitates other access goals. However, China also knows how to establish its own access and influence. The opening of the China–Nordic Arctic Research Center (CNARC) in Shanghai is an excellent example. This institute allows China to attract international participation while having significant control over

agendas and interests. The organization also helps to strategically improve China's legitimacy and need to be an Arctic governance actor.

Public opinion warfare is relatively straight forward. Negative climate-change impacts on China allow Beijing to pursue scientific access with almost default Chinese social acceptance and support as a natural expectation. As a result, psychological and legal warfare are areas where China might maintain more focus and resourcing.

Economic

Through the BRI, specifically the PSR policy in the Arctic, China's three warfares strategy represents a complex challenge to Arctic states with significant investment needs relative to their development strategies and the most direct tool for China to set conditions for influence and build political power. Beijing advocates for the exploration, extraction, and exploitation of Arctic resources by Arctic and non-Arctic, and China is best situated to leverage its advantages of capital, technology, and domestic market to develop these resources.

The three warfares strategies are the most acute in China's investments in critical infrastructure and resource extraction industries, by providing well needed capital to Arctic state development, incentivizing and solidifying cooperation, maintaining access to resources and routes along the PSR, and facilitating the emergence of Arctic state asymmetric dependency on China in support of Beijing's long-term strategic objectives in the Arctic.

Since establishing the PSR in 2018, Beijing has increased its utilization of a multitude of economic tools, most particularly foreign direct investment, to advance China's interests and influence in the Arctic region. In the CNA report, Exploring the Relationship between China's Investment in the Arctic and Its National Strategy, such investments have concentrated heavily in resource extraction industries of oil, natural gas, minerals, and rare earth elements and critical transportation infrastructure—namely tunnels, bridges, rail, and port and airport facilities. Through private PRC-based companies and state-owned enterprises, China can provide guidance and regulations to encourage, restrict, or prohibit particular investments and to ensure consistency with Chinese national interests and long-term strategic objectives. These investment projects have either been completed or attempted in multiple Arctic states, particularly Norway, Iceland, and Greenland, but most predominately in Russia. China has made significate investments in Russia's oil and gas industry, such as Yamal LNG, a liquified natural gas facility along the NSR, and China continues to be Russia's primary foreign investor following Russia's invasion of Ukraine in early 2022. Aside from Russia, China has concentrated its influence operations efforts on the smaller Arctic states of Iceland and Greenland. Since 2008, both countries were particularly politically and economically vulnerable to foreign investment: the Icelandic economy fell into deep economic depression following the

global financial crisis, and Greenland adopted the Self-Government Act, allowing for greater autonomy to negotiate agreements with foreign states, independent of the Kingdom of Denmark. China has been developing bilateral commercial and economic relations within Iceland and Greenland, investing in joint energy and minerals exploitation and taking advantage of Iceland's bankrupt finances and Greenland's ambitions to gain independence from Denmark.

China's economic investments in Arctic state's critical infrastructure and resource extraction industries are examples of psychological and legal warfare setting conditions for the emergence of asymmetric dependency between underdeveloped Arctic states and China with positive public opinion effects by advancing the image of China as important stakeholder, invested in the common good, and reliable partner in the Arctic. China's economic investments allow Beijing to conduct influence operations that have long-lasting structural impact by leveraging economic investment power to cultivate dependency on China for Arctic states' future development strategies, to secure and maintain access to Arctic resources along the PSR, to promote China as a trusted partner and its near-Arctic state narratives, and to legitimize China's participation in Arctic affairs and governance.

Conclusion

Since 2005, China has aspired to become a polar great power and has proven its ambition to project influence and power globally from the Arctic to Antarctica. Through the BRI and the PSR, Beijing has utilized elements of the three warfares strategy to conduct influence operations in the Arctic region, focusing on three overlapping Arctic areas of interest to promote China's increasing role and participation in Arctic affairs and governance, its leadership in scientific research activities and expeditions, and its economic investment in critical infrastructure along the PSR. The goals of Chinese influence operations are to propagate and promote China as an important stakeholder, scientific expert, trusted partner, and near-Arctic state; to shape Arctic states' perceptions of China's intentions; and to secure greater political and economic position to meet long-term strategic objectives by 2049.

The use and effectiveness of the three warfares strategy, as applied to the Arctic region, remain uncertain given these remain relatively early in their development. Given emergent globalization circumstances, the pace of China's interests pursued through influence strategies seems nominal perhaps. At the same time, Chinese state-related behavior in the Arctic remains under close scrutiny from the West. This consideration to the Three Warfares in the Arctic hopefully provokes interest to follow the topic and maybe even continue studies and research on ways in which to understand Chinese Arctic influence methods and goals.

"Intensifying U.S.-China security dilemma dynamics play out in the Arctic: Implications for China's Arctic strategy," Camilla T. N. Sørensen, Arctic

Yearbook, 2019 [6] https://arcticyearbook.com/images/yearbook/2019/Scholarly-Papers/21_AY2019_Sorensen.pdf

Abstract:

The U.S., Russia and China are all assigning higher strategic priority to the Arctic and are strengthening their diplomatic and military presence and activities in the region. For the U.S. and Russia, it links up with the growing security tension in the surrounding regions, e.g. the North Atlantic Ocean and the Baltic Sea region. However, the deepening great power competition with China also increasingly drives Washington's diplomatic and military offensive in the region. For China, it is a question about ensuring access to Arctic sea routes and resources, e.g. energy, minerals and fisheries, and making sure that China gets a say in Arctic governance. The so-called "Arctic exceptionalism" – i.e. the Arctic as a low-tension region, where the great powers, despite conflicts in other regions, continue to cooperate and refrain from political and military coercion to get their way – is under pressure. This article analyzes how Arctic politics and security are increasingly intertwined with global security developments that are dominated by intensifying U.S.-China security dilemma dynamics. It further discusses the implications for China's Arctic strategy pointing to how recent developments make it even more difficult for China as the only great power without Arctic territory to ensure its access to and influence in the region. Seen from the perspective of numerous Chinese Arctic scholars, this underlines the growing importance of strengthening China's economic and strategic cooperation with Russia in the region.

Current & Relevant Information:

Introduction: Arctic politics and security through a prism of "great power competition"

The above excerpts from the U.S. Secretary of State Pompeo's speech to the Arctic Council Ministerial Meeting in Finland in early May of 2019 give a clear indication of how the Trump Administration increasingly views the Arctic as yet another arena for great power rivalry outlined as the overall frame for U.S. security policies in the National Security Strategy from December, 2017 (White House, 2017). In recent months, the U.S. has strengthened its focus on the Arctic, both diplomatically and militarily. The June 2019 updated Arctic strategy from the U.S. Department of Defense is presented as a strategy for the Arctic region "in an era of strategic competition" (DoD, 2019b: 2). That is, Washington increasingly sees Arctic politics and security through a prism of "great power competition," and it is China, in particular, that Washington points to as the main great power competitor. The strategy warns about creeping Chinese attempts to use investments and other economic leverage points to gradually increase China's role and influence in the Arctic, which is threatening regional stability. As stated in the strategy "China is attempting to gain a role in the Arctic in ways that may undermine international rules

and norms, and there is a risk that its predatory economic behavior globally may be repeated in the Arctic" (DoD, 2019b: 6). The annual report on China's military power from the U.S. Department of Defense to Congress, published in early 2019, also for the first time includes a special section on "China in the Arctic" which warns "Civilian research could support a strengthened Chinese military presence in the Arctic Ocean, which could include deploying submarines to the region as a deterrent against nuclear attacks (DoD, 2019a: 114).

These recent official U.S. statements and documents combined with the ongoing "securitization" in Washington of almost all dimensions of the bilateral U.S.-China relationship, from student exchanges and cultural programs to trade and joint business and research projects, decrease the room of maneuver for China in the Arctic. The U.S. is concerned about the Russian military build-up in the Arctic, which in itself arguably would have led to an increasing U.S. military presence in the region. However, it is the growing Chinese presence and interests in the region that have led to the comprehensive upgrading of the U.S. diplomatic approach to the Arctic, which is illustrated by the significant increase of high-level visits to the region in recent months and the reopening of a permanent U.S. diplomatic presence in Greenland, announced in early June 2019 (GoG, 2019).

The rising U.S. worries come on the background of the development of a more confident, proactive and sophisticated Chinese diplomacy in the Arctic over the recent decade. The region has moved up the Chinese leaders' foreign and security policy agenda and is assigned increasing strategic importance. The key here is that in Beijing's perspective, the Arctic has become more closely linked with its ability to realize China's economic reform agenda and great power ambitions.

This article analyzes how Arctic politics and security are increasingly intertwined with global security developments that are dominated by intensifying U.S.-China security dilemma dynamics. It further discusses the implications for China's Arctic strategy, pointing to how recent developments make it even more difficult for China as the only great power without Arctic territory to ensure its access to and influence in the region.

In terms of theory and analytical approach, the analysis draws on defensive neorealism with its focus on states as the main actors in an anarchic international system (Waltz, 1979). The structure of the international system, i.e. the distribution of relative power capabilities among the great powers, combined with geostrategic conditions, set the overall room of maneuver for states. All states seek to maximize their security by strengthening their relative economic and military power and enter alliances. The security dilemma as coined by John Herz (1951: 3-4) is the central analytical concept. It catches a situation, where a state's attempt to increase its own security has the effect of decreasing the security of other states. More specifically, the security dilemma refers to vigorous action-reaction dynamics between two states, where the steps by one state to increase its security, e.g. by building up its

military, creates similar responses by another state, setting off another response by the first state, and then again by the second and so on. This stimulates a “negative spiral” of deteriorating relations with growing security tension, power competition, escalating arms races, and potentially conflict and war (e.g. Jervis, 1976). The ultimate sources of the security dilemma are anarchy – i.e. the lack of a higher authority in international politics – and states’ uncertainty and fears about each other’s intentions under anarchy.

The key is that such security dilemma dynamics are playing out in the Arctic. They are visible in all bilateral relations among the three great powers, but with the most consequential dynamics being found in relations between the U.S. and China, which strongly link up with the deepening great power competition between the two states. Russia is increasingly positioning itself with Beijing even though Moscow still has strong concerns about the implications of a stronger and more ambitious China. As argued below, this is a result of not only the Western sanctions against Russia since the Russian annexation of the Crimea in 2014, but also an awareness among Chinese leaders of the potential for adverse security dilemma dynamics and the need for countering “China threat” perceptions and reassuring Russia and other Arctic states (Hsiung, 2018). It reflects how Beijing continuously seeks to strike a balance between assertiveness and reassurance in its Arctic diplomacy. Thus, there are multifaceted and crosscutting security dilemma dynamics currently at play in the Arctic, where some are linked to the deepening U.S.-China great power competition and others have certain regional origins. The other Arctic states are to different degrees and in different ways caught between the U.S. as a close ally and traditional security guarantor, China as prospective economic partner, and Russia as an important Arctic neighbor that they need to cooperate with to address the many complex challenges evolving in the region as the ice melts.

The article presents its analysis in three steps. The first section analyzes China’s Arctic strategy, the drivers behind and how Beijing seeks to implement the strategy (i.e. China’s evolving Arctic diplomacy). Seen from Washington, China’s entrance into the Arctic and the development of a more confident, proactive and sophisticated Chinese diplomacy in the region has begun to threaten regional stability. This activates and further fuels the U.S.-China security dilemma dynamics in an Arctic political and security context. Specifying such dynamics, the second section takes a closer look at the U.S. response and what it prescribes regarding how the Arctic states should deal with China in the Arctic. The third and last section discusses the implications for China’s Arctic strategy, also including analyses and debates on this from Chinese Arctic scholars. Several of these Chinese Arctic scholars underline the growing importance of strengthening China’s economic and strategic cooperation with Russia in the region as a way for Beijing to respond to what they increasingly assess as a more threatening U.S.

“Are Russia and China Teaming Up to Control the Arctic?,” Daniel Cusick, Scientific American, 3 January 2024 [7]
https://www.scientificamerican.com/article/are-russia-and-china-teaming-up-to-control-the-arctic/

Overview:

Worried Pentagon officials are resetting U.S. Arctic policy and training in response to China and Russia’s plans.

Current & Relevant Information:

More aggressive posturing by Russia and China in the fast-melting Arctic is raising red flags for the Pentagon.

Russia is working to quickly flex its muscle in the region through a partnership with China to build infrastructure along the Northern Sea Route, one of two major shipping lanes across the Arctic. That agreement, announced exactly a year after Russia invaded Ukraine, was viewed by experts as a signal that Russia and China increasingly share economic interests in the icy polar region.

Then in August, a fleet of 11 Russian and Chinese warships sailed from the Sea of Japan through the Bering Strait into the Pacific Ocean, passing close to the U.S.-held Aleutian Islands off the Alaskan coast. The Russian news agency Interfax said the ships were conducting "joint anti-submarine and anti-aircraft exercises."

“Russia has a heavy emphasis on the Arctic, and over half of it is in Russian territory,” Iris Ferguson, deputy assistant secretary of Defense for Arctic and global resilience, said in an interview with E&E News. “I don’t want to suggest they don’t have a place there. But we are concerned about increasing levels of investment in Arctic military capabilities."

Those realities require a reset of U.S. Defense Department policies in the Arctic region, including “changes in how we’re training and equipping [U.S. forces] and rethinking the kinds of operations we need to have there,” Ferguson said. Elements of those changes will be laid out in DOD's Arctic strategy, expected to be released this month.

The document will replace a 2019 version released three years before Russia invaded Ukraine, effectively alienating itself from seven partner Arctic nations: the United States, Canada, Norway, Sweden, Finland, Denmark and Iceland. Experts noted China does not have territory in the Arctic but seeks access and influence in the region, something it hopes to advance through its Russian alliance.

Diplomatic relations among Arctic countries are often handled through the eight-member Arctic Council, whose chairmanship rotates every two years. Russia chaired the council from 2021 to 2023 and was shunned after its Ukraine invasion. Norway assumed the chairmanship in May.

The Biden administration is strengthening its focus on the region by creating senior positions to oversee Arctic policy, including the one held by Ferguson, who assumed the role last year. It also created a senior State Department position and named Mike Sfraga, chair of the U.S. Arctic Research Commission, to be ambassador-at-large. The Senate has yet to confirm his nomination.

After the Russia-China war game off Alaska last summer, U.S. Marines joined roughly 4,000 NATO-affiliated troops for a military exercise in the Baltic Sea. The November exercise was led by Finland, its first since joining NATO.

It came as Congress authorized $200 million in infrastructure spending at military bases in Alaska, where experts say climate warming is placing additional stress on aging facilities, which often date back to the World War II era.

The largest Alaska item in the National Defense Authorization Act is a $107.5 million runway extension at Joint Base Elmendorf-Richardson, home to 22,000 military personnel and the Alaskan Command, including the North American Aerospace Defense Command.

The Army was awarded $34 million to build new housing at Fort Richardson near Fairbanks. Eielson Air Force Base, south of Fairbanks, will receive $9.5 million to build a new dormitory to replace old, substandard, energy-sucking barracks. Eielson also is home to the Air Force's 354th Fighter Wing, nicknamed the “Icemen,” with two combat-ready squadrons of F-35A Lightning II fighter jets to patrol the polar region.

Ferguson said the infrastructure projects will be designed and built to account for climate warming impacts like thawing permafrost. She added that her office provides new levels of coordination among individual branch services, each of which has its own Arctic climate action plan.

“Honestly, creating a crossroads for everyone to go to within the [Defense] department is pretty significant,” she said. “Prior to the establishment of our office, our outside partners didn’t have a place to go when they wanted to talk Arctic issues. Fortunately, the bulk of our partners are highly geopolitically aligned and have high levels of military capability.”

Erin Sikorsky, director of the Center for Climate and Security and the International Military Council on Climate and Security, said in an interview that the risk of open hostilities between the U.S. and Russia or China is unlikely. But tensions could rise over issues of territorial encroachment in a region shared by eight countries.

“The overarching risk I see is a warming Arctic is a busier Arctic,” Sikorsky said. “The backdrop to that is the increased geopolitical competition between NATO and Russia or the U.S. and China. I worry that the increased presence in the Arctic — both of military and commercial actors — increases the risk of accidents that could spill over into hotter conflicts.”

She also noted that with NATO expansion into the region, prompted by Russia's invasion of Ukraine, joint training exercises between allied forces will occur more regularly, increasing the risk of engagement with adversaries. Finland joined NATO last year, and Sweden is awaiting approval.

"It's important to not create a self-fulfilling prophecy of conflict," Sikorsky said. "We should make sure the signals that we're sending to our competitors and adversaries are not ones where we want to see the Arctic as a place to fight over."

Matthew Hickey, associate director for the DOD-affiliated Ted Stevens Center for Arctic Security Studies, said in an interview that all changes in the Arctic — environmental and geopolitical — occur against a backdrop of "norms, rules and laws," and that the opening of new shipping routes is one way climate change will test those norms.

He agreed that a more crowded Arctic would foster more competition for resources and routes, which in turn could stoke tensions between rival countries. A robust defense strategy that accounts for climate change alongside geopolitics will aid the Pentagon in its readiness mission.

"We can see through the monitoring of our acute and pacing threats the connection between a changing environment and geopolitical consequences, and the need to potentially elevate the importance of the Arctic," Hickey said. "In some respects, we're well-equipped to do that. In other areas we might consider improving upon our existing infrastructure."

"Northern Expedition: China's Arctic Activities and Ambitions," Rush Doshi, Alexis Dale-Huang, and Gaoqi Zhang, Foreign Policy at Brookings, April 2021 [8]
https://www.brookings.edu/wp-content/uploads/2021/04/FP_20210412_china_arctic.pdf

Summary:

This report explores China's internal discourse on the Arctic as well as its activities and ambitions across the region. It finds that that China sometimes speaks with two voices on the Arctic: an external one aimed at foreign audiences and a more cynical internal one emphasizing competition and Beijing's Arctic ambitions. In examining China's political, military, scientific, and economic activity — as well as its coercion of Arctic states — the report also demonstrates the seriousness of China's aspirations to become a "polar great power." China has sent high-level figures to the region 33 times in the past two decades, engaged or joined most major Arctic institutions, sought a half dozen scientific facilities in Arctic states, pursued a range of plausibly dual-use economic projects, expanded its icebreaker fleet, and even sent its naval vessels into the region. The eight Arctic sovereign states — Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, and the United States — exercise great influence over the Arctic and its strategically valuable geography. China aspires to be among them.

1. **China seeks to become a "polar great power" but downplays this goal publicly.** Speeches by President Xi Jinping and senior Chinese officials with responsibility for Arctic policy are clear that building China into a "polar great power" by 2030 is China's top polar goal. Despite the prominence of this goal in these texts, China's externally facing documents — including its white papers — rarely if ever mention it, suggesting a desire to calibrate external perceptions about its Arctic ambitions, particularly as its Arctic activities become the focus of greater international attention.

2. **China describes the Arctic as one of the world's "new strategic frontiers," ripe for rivalry and extraction.** China sees the Arctic — along with the Antarctic, the seabed, and space — as ungoverned or under governed spaces. While some of its external discourse emphasizes the need to constrain competition in these domains, several others take a more cynical view, emphasizing the need to prepare for competition within them and over their resources. A head of the Polar Research Institute for China, for example, called these kinds of public spaces the "most competitive resource treasures," China's National Security Law creates the legal capability to protect China's rights across them, and top Chinese Communist Party (CCP) officials have suggested China's share of these resources should be equal to its share of the global population.

3. **Chinese military texts treat the Arctic as a zone of future military competition.** Although several externally facing Chinese texts downplay the risk of military competition in the Arctic, which would likely be harmful to Chinese goals, military texts take the opposite perspective. They note that, "the game of great powers" will "increasingly focus on the struggle over and control of global public spaces" like the Arctic and Antarctic and argue that China "cannot rule out the possibility of using force" in this coming "scramble for new strategic spaces." Chinese diplomats describe the region as the "new commanding heights" for global military competition too while scholars suggest controlling it allows one to obtain the "three continents and two oceans' geographical advantage" over the Northern Hemisphere.

4. **Chinese texts make clear that its investments in Arctic science are intended to buttress its Arctic influence and strategic position.** Although externally facing messaging indicates China's desire to pursue scientific research for its own benefit and for global welfare, China's top scientific figures and high-level CCP members are clear that science is also motivated by a drive for "the right to speak," for cultivating China's "identity" as an Arctic state, and for securing resources and strategic access. China's polar expeditions and various research stations assist Beijing with its resource extraction, with Arctic access, and with acquiring experience operating in the Arctic climate.

5. **China supports existing Arctic governance mechanisms publicly but complains about them privately.** Several Chinese texts indicate frustration with

Arctic mechanisms and concern that the country will be excluded from the region's resources. Official texts suggest gently that the region's importance now transcends "its original inter-Arctic States," while scholars once feared Arctic states would launch an admittedly unlikely "eight-state polar region alliance" or institutionalize the Arctic Council in ways that "strengthen their dominant position" at China's expense. These texts stress China's pursuit of "identity diplomacy," namely, terming China a "near-Arctic State" because it is affected by climate change. They also indicate an interest in pushing alternative Chinese governance concepts — in some cases to supplement and other cases to run outside the Arctic Council — including a "Polar Silk Road" and China's "community with a shared future for mankind," though specifics are often lacking.

6. **Accommodating China's Arctic ambitions rarely produces enduring goodwill.** Norway was the first country to allow China to build an Arctic science station and Sweden was the first worldwide to allow China to build its own completely Chinaowned satellite facility. Both these efforts, which were richly praised by China at the time, did not protect either country from later economic coercion and harsh condemnation by China. In both cases, China punished these countries not only for the actions of their governments but also for the independent actions of their civil societies, which were to award Chinese dissident Liu Xiaobo the Nobel Peace Prize and to investigate China's kidnapping of Swedish citizen Gui Minhai. Efforts by both Norway and Sweden to reverse the slide — with Sweden keeping relatively quiet about the rendition of its citizen and Norway vigorously backing China's pursuit of Arctic Council observer status — were only met with restrictions on Norwegian fish exports and colorful threats of coercion against Sweden.

7. **Arctic dependence on trade with China is often overstated, and trade flows are smaller than with other powers.** Chinese economic statecraft is feared by some in the Arctic and around the world, but the region's dependence on China is remarkably small. For the five smallest Arctic economies — Sweden, Norway, Denmark, Finland, and Iceland — China accounts for an average of only 4.0% of their exports, less than the United States (6.2%) and far less than the NATO and EU economies excluding the United States (70.3%).

8. **China has invested significantly in Arctic diplomacy to boost its regional influence.** China has sent high-level figures — at the levels of president, premier, vice president, foreign minister, and defense minister — to visit Arctic countries other than the United States and Russia 33 times over the last 20 years. Beijing lobbied heavily to become an Arctic Council observer, became a strong presence at many other regional Track II fora, and launched its own diplomatic and Track II regional efforts, including a China-Russia Arctic Forum and the China-Nordic Arctic Research Center, to deepen relations with governments and sub-national actors.

9. **China's military profile in the Arctic has increased, and its scientific efforts provide strategic advantages too.** China has dispatched naval vessels to the

Arctic on two occasions, including to Alaska and later to Denmark, Sweden, and Finland for goodwill visits. It has built its first indigenously produced icebreaker, has plans for more conventional heavy icebreakers, and is considering investments in nuclear-powered icebreakers too.

10. **China's scientific activities in the Arctic give it greater operational experience and access.** China has sent 10 scientific expeditions into the region on its Xuelong icebreaker, generally with more than 100 crew members, that officials acknowledge give it useful operational and navigational experience. China has also established science and satellite facilities in Norway, Iceland, and Sweden while pursuing additional facilities in Canada and Greenland — with its facility in Norway able to berth more than two dozen individuals and provide resupply. Finally, China has used the Arctic as a testing ground for new capabilities whether related to satellites coverage, fixed-wing aircraft, autonomous underwater gliders, buoys, and even an "unmanned ice station" configured for research.

11. **China's infrastructure investments in the Arctic sometimes appear dual-use.** Several Chinese infrastructure projects that have little economic gain have raised concerns about strategic motivations and dual-use capabilities. These include efforts by a former Chinese propaganda official to purchase 250 square kilometers of Iceland to build a golf course and airfield in an area where golf cannot be played and later to buy 200 square kilometers of Norway's Svalbard archipelago. Chinese companies have also sought to purchase an old naval base in Greenland; to build three airports in Greenland; to build Scandinavia's largest port in Sweden; to acquire (successfully) a Swedish submarine base; to link Finland and the wider Arctic to China through rail; and to do the same with a major port and railway in Arkhangelsk in Russia.

12. **China's commodity investments in the Arctic have a mixed track record.** Despite some important successes, a large number of Chinese investments have failed. For example, a major Chinese firm abandoned a Canadian zinc mine, refused to pay creditors, and left local governments to pay to clean up an environmental disaster. Another firm disappointed in its investment later sued, saying it had overpaid. In Greenland, a Chinese conglomerate abandoned its iron mine after running into legal trouble in China. In Iceland, a Chinese company withdrew from an Arctic exploration partnership due to poor initial resource estimates.

Current & Relevant Information:

INTRODUCTION

In 2010, on the sidelines of a major Chinese political conclave often referred to as the "Two Sessions," retired Chinese naval Rear Admiral Yin Zhuo made a remarkably candid set of statements about China's Arctic ambitions.

“I have said on many occasions that China’s population accounts for one-fifth of the world’s population, so can’t we get a fifth of the interests in the Antarctic and Arctic?” Yin asked. After all, “this is the common heritage of mankind, so everyone has a share,” he explained, citing a concept in international law applied to various parts of the global commons, including Antarctica, the moon, and the deep seafloor. In Yin’s imagination, China’s share would be lucrative. The Arctic and the Antarctic are “very rich in various resources” and their “sea lanes will also be important in the future.” To claim these interests, Yin warned, China would have to struggle hard: “if you do not defend it, do not fight for it, then you have no say… We cannot leave it all to others; the Chinese people have rights there.”

Yin Zhuo’s belief that China has “rights” to perhaps one-fifth of the Arctic could be dismissed as the remarks of one of China’s retired military hawks who are known to sometimes overstep their bounds. But Yin Zhuo — the son of a Long March veteran and high-ranking military political commissar — made these comments as a member of the Chinese People’s Political Consultative Conference which was meeting as part of the “Two Sessions.” His comments were part of an interview with state media, one that — even today — is published on one of the main websites of China’s State Council Information Office. Even if Yin overstepped his bounds, his views on the Arctic also find expression in Chinese texts.

This report explores China’s internal discourse on the Arctic as well as its diplomatic, military, scientific, and economic efforts across the region. It notes that China sometimes speaks with two voices on the Arctic: one aimed at foreign audiences that emphasizes science and cooperation and an internal, often cynical voice that emphasizes the Arctic as a frontier for resource exploitation and competition between the great powers, with science and diplomacy often serving supporting roles for Beijing’s military and economic ambitions.

With respect to China’s Arctic behavior, the report stresses China’s attempts at coercion of Arctic states and notes the limited dependence of most states on trade with China relative to trade with Europe and the United States. It also traces China’s diplomatic investments, reflected in dozens of high-level visits and efforts to join and create Arctic multilateral bodies. It explores China’s military efforts, both its occasional dispatching of surface vessels into the Arctic as well as its testing of dual-use platforms and its pursuit of Arctic access. It looks closely at China’s scientific activities, noting the ways that they enhance China’s diplomatic influence, help China cultivate an Arctic identity, and can sometimes be useful securing resources and strategic access. Finally, the report surveys China’s economic investments and its pursuit of the “Polar Silk Road.”

The Arctic has often been at the center of great power politics, as Chinese political figures continue to stress. Many of the countries, islands, and coastlines so important in World War II and the Cold War are still geostrategically important today, with China now maneuvering for greater influence within them. During World War II,

Germany considered occupying Iceland and in fact set up secret facilities on Greenland and Norway's Svalbard archipelago. The allies occupied all three, with Greenland and Iceland continuing to host NATO bases during the Cold War and Svalbard remaining free of military installations to reassure the Soviet Union. Meanwhile, the entire region was critical to American and Soviet satellites, the intercontinental ballistic missiles both superpowers would send over it in the event of a nuclear conflict, and the nuclear submarines they dispatched to travel under it.

Today, as new economic and strategic opportunities follow the warming of the Arctic, China is seeking its own Arctic influence. It has established science stations in Svalbard (along with other countries) as well as in Iceland; sought them in Canada and Greenland; built satellite facilities in Sweden; sent over 10 expeditions in the region; and significantly increased its economic and political influence across the region. The eight Arctic sovereign states — Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, and the United States — exercise great influence over the Arctic and its strategically valuable geography. China, in pursuit of status as a "polar great power," wishes to be among them.

CHINA'S MILITARY ACTIVITIES

China's Arctic military behavior suggests that strategic motivations underlie some of its Arctic activism. These interests are likely long-term, particularly because an Arctic military conflict in the near future is unlikely. After primarily focusing on scientific research activities over the last few decades, Beijing is increasing its investment in regional military capabilities that enhance its status as a "near-Arctic state" and protect its growing security and commercial interests in the Arctic.

Part of Beijing's interest is of course related to environmental changes in the Arctic, especially melting ice, that have increased China's appetite to explore and take advantage of the Arctic's strategic and commercial benefits. Many Chinese sources have expressed an interest in exploring the region's strategic waterways, especially those that would benefit China's shipping industry. By using the Northern Sea Route along the Russian and Norwegian coasts, China could "reduce the amount of time needed to move commerce out of China to European markets 'by half.'" The Central Arctic route, which also interests Chinese scholars, could be open much sooner. Chinese Arctic scholars have also expressed concerns over the developing security competition in the Arctic, especially between Arctic countries like the United States and Russia. And although Chinese sources have argued that Chinese activities in the Arctic are solely for scientific research and environmental preservation, its Arctic behavior is sometimes more complex. The dispatch of People's Liberation Army Navy vessels to the region, the establishment of Chinese satellite receiving stations, the deployment of new military technologies in the region, and the possible pursuit of Arctic access all suggest strategic motivations may guide China's behavior. These developments signal China's interest in potentially using its military to protect its

commercial interests and scientific research opportunities — both of which legitimize China's need to be involved in the Arctic.

PLAN visits and icebreaker construction

The Chinese military has become increasingly confident in its own Arctic capabilities, as seen in People's Liberation Army Navy decision to dispatch vessels to both the U.S. and Arctic countries. In September 2015, the PLAN sent vessels to U.S. waters off the coast of Alaska. Considered the "first ever incursion by Chinese navy boats into the Arctic region," the group included "three surface combatants, an amphibious warship and a fleet oiler" and had just finished participating in a joint military exercise with the Russian military off of Russia's Pacific coast and the Sea of Japan.

A few weeks after the Chinese fleet entered Alaskan waters, PLAN Fleet Task Force also visited several Arctic countries, including Denmark, Sweden, and Finland, for goodwill visits. The fleet, which included "the guided-missile destroyer Jinan, the guided-missile frigate Yiyang and the comprehensive supply ship Qiandaohu," demonstrated China's enhanced naval capabilities and its interest in the Arctic.

In addition, China has invested in building an icebreaker fleet. The development and deployment in 2018 of the Xuelong 2, China's first domestically-built icebreaker, demonstrates China's sustained interest in Arctic presence. China has engaged in more than 10 Arctic expeditions using these icebreakers, allowing it to not only test and demonstrate the effectiveness of its technology, but to also bolster its standing as a "near-Arctic state." There are also some indications that China is considering investment in nuclear-powered icebreakers, with some possibility that this capability aside, the civilian design experience and assistance for this project could be transferred to military vessels too. For example, China National Nuclear Corporation (CNNC) issued a tender for providing services on China's first nuclear-powered icebreaker, and went into detail about the vessel's purpose and requirements. Shanghai Jiaotong University, which has a naval and nuclear engineering program, appears to have won the contract. And others have suggested that the icebreaker will be constructed at China's Jiangnan Shipyard, which also built the Xuelong 2. Meanwhile, even as China determines when and how to pursue this capability, it continues to invest in conventional heavy icebreakers.

Dual-use activities

While finding opportunities to cooperate with other Arctic states in research and environmental protection, China has also used these engagements to test its new military technologies in the Arctic environment. Several ostensibly civilian activities may have military implications. In 2007 for example, China's BeiDou Navigation Test Satellite System (BDS) test satellite was launched and was "capable of being received in polar regions." In 2014, China used its BeiDou Navigation Satellite System to rescue the Xuelong vessel as it was working to rescue a Russian research vessel in Antarctica. As Anne-Marie Brady writes, "A polar-orbiting Chinese

military satellite, part of the BeiDou system, was used to identify ice conditions to guide Xuelong's passage through the ice floes. The SOA and PLA jointly coordinated Xuelong's successful exit from its ice trap." In 2015, China launched an effort to build a satellite ground station in Sweden; in 2017, it sought to do so in Greenland. In addition, China's first polar-observing satellite Ice Pathfinder (BNU-1) began its first Arctic observation mission in June 2020 after in-orbit testing in 2019. According to Chinese state media, the satellite "is expected to achieve full coverage of the Arctic in seven days," supports Chinese Arctic expeditions, and reduces reliance on foreign satellites for data.

China has also tested a range of different possibly dual-use assets within the region that go beyond its routine dispatching of its main icebreaker — the Xuelong — to the region to acquire useful skill in operating within the Arctic climate. For example, in 2008, China also developed and deployed "underwater robots" that would help predict sea ice changes during one of its Arctic expeditions. In 2012, China deployed buoys in the Arctic for the first time to observe air-sea interactions in the Norwegian Sea. During the 2015-2016 Xuelong expedition to Antarctica, China also tested the Xueying-601, a "fixed-wing aircraft designed specifically for polar flights" in both Antarctica and the Arctic. In November 2015, China revealed its first semi-submersible drilling platform, the Viking Dragon, that was suitable for Arctic conditions. The Viking Dragon was built for Norway by CIMC Raffles Offshoring Engineering Co., Ltd. China deployed the Haiyi autonomous underwater glider, and installed China's first "unmanned ice station in the region" during its ninth expedition in 2018. It debuted its oceanographic research vessel Xiangyanghong 01 during its next expedition, the following year.

Finally, as the report discusses in greater depth elsewhere, China has also demonstrated an interest in establishing scientific and other facilities in the region that might help it maintain Arctic access. China's Yellow River Station in Norway's Svalbard archipelago can accommodate over 25 people, and there have been some relatively low-level disagreements between China and Norway regarding Beijing's use of this facility. A few years after it was constructed, propaganda official-turned-billionaire businessman Huang Nubo tried to purchase land in Iceland for a resort and airfield; failing in this, he turned to Svalbard and finally to Norway itself — all for projects that made little economic sense but would have transferred unprecedently large tracks of land to a state-linked company. In Sweden, China built its first completely China-owned remote sensing satellite data receiving station, covering Europe and the Arctic. In Iceland, China later built a major Arctic station that may well be expanded. And in Greenland, Chinese mining company General Nice Group attempted to purchase an abandoned naval base. Fearful of potentially jeopardizing their country's relationship with the United States, Danish officials ultimately rejected General Nice Group's offer. Yet it has been reported that China discreetly launched a satellite ground receiving station in Greenland just a year later.

“China as an Arctic Great Power: Potential Implications for Greenland and the Danish Realm,” Camilla T.N. Sørensen, Danish Defence Policy Brief, February 2018 [9] https://www.fak.dk/globalassets/fak/dokumenter/publikationer/-china-as-an-arctic-great-power---2018-.pdf

Abstract:

In late January 2018, China released its long-awaited White Paper on China’s Arctic Policy. It represents the culmination of the development of a more confident, proactive and sophisticated Chinese diplomacy in the Arctic. Beijing has intensified its efforts in establishing substantial and extensive relations with all Arctic actors and has gradually increased the presence and influence of China in the Arctic institutions. An increasing number of Chinese investments and infrastructure projects take place in the Arctic, propelled primarily by a growing Chinese interest in Arctic resources and Arctic sea routes, which are now officially included in the maritime part of President Xi Jinping’s prestige project, the Belt and Road Initiative (BRI). The policy brief analyses China’s Arctic White Paper focusing on the potential implications for Greenland and the Danish Realm. The policy brief concludes that China’s increasing presence in the Arctic constitutes a challenge as well as an opportunity depending on whether Copenhagen and Nuuk succeed in establishing open, respectful and constructive dialogue and cooperation.

Current & Relevant Information:

These years, China appears on the international scene as an ever more confident great power. President Xi Jinping speaks of a ‘new era’ for China as a great power marking the end of the traditional ‘keeping a low profile’ guideline for Chinese foreign and security policy. China pursues great power responsibility and seeks to play a more active role in addressing and solving international conflicts and global challenges. However, the expectation on the part of China is that China in return attains great power influence and respect.

Domestic Driving Forces and a Visionary Chinese Leader

China’s development is driven by strong domestic concerns and considerations. China’s increasing dependence on imports of energy and natural resources has been the main factor causing China to enter into economic agreements and strategic partnerships to an unprecedented degree with countries in e.g. Africa, Latin and South America, Central Asia and the Middle East. The current restructuring of the Chinese economy, where Chinese-driven innovation and technological development are at the top of the agenda, also drives the expansion of Chinese investments in and acquisition of foreign companies. The new tendencies in Chinese foreign and security policy are also to be traced back to President Xi Jinping, who as an unusual proactive and visionary Chinese leader is more willing than his predecessors to use economic and military tools to demonstrate and secure what Beijing considers legitimate Chinese spheres of interest. With President Xi Jinping, China has begun

to present Chinese ideas and solutions and to launch new comprehensive Chinese initiatives. The most ambitious of these initiatives is the Belt and Road Initiative (BRI). With this initiative, China positions itself in the lead of efforts to generate regional and global economic growth and development by funding and establishing large-scale infrastructure projects such as high-speed train connections, modern roads and ports, oil and gas pipes as well as communication networks and cables. The BRI specifically aims to secure better and faster transport and communication connections between China and Europe, but also to the Middle East and Africa.

Increasing Strategic Significance of the Arctic

This 'new era' for China as a great power is also evident from the country's ambitions and diplomatic behavior in the Arctic. China's first Arctic White Paper released in late January 2018 states that China, due to its status, size and proximity to the Arctic, has legitimate interests in the region and should therefore be respected and included as an important stakeholder. Furthermore, it emphasizes that the Arctic should not be regarded as a demarcated region but has global implications and international impacts, and therefore it is not up to the Arctic states solely to establish the rules and norms for the future development of and access to the region and its resources. Non-Arctic states like China also have a legitimate role to play and a right to engage in Arctic research, navigation, overflight and a series of economic activities such as resource extraction, fishery, cabling and piping. These are new directions. Previous Chinese official speeches and documents on the Arctic have taken a more modest and reluctant stance and underplayed China's ambitions in the region. This played an important role in reducing the concern among the Arctic states and in 2013 paving the way for China's membership of the Arctic Council as an observer state. However, among Chinese Arctic scholars and in internal Chinese documents characterizing the Arctic as a 'common good' has long been prevalent. November 2014 saw the first indications of how China's more confident and ambitious foreign and security policy also included the Arctic. For the first time, President Xi Jinping characterized China as a 'polar great power' and directly linked the country's ambitions in the polar regions, i.e. Arctic and Antarctica, to China's goal of becoming a maritime great power. In his speech at the 19th Party Congress in October 2017, President Xi Jinping further underlined Beijing's goal to obtain world-class military might by 2050 including a Chinese navy capable of operating globally. With the opening of China's first overseas military naval base in the East African country of Djibouti in August 2017, this is gradually beginning to materialize. The release of China's first Arctic White Paper should be seen in light of these developments. It shows how the Arctic has moved up the Chinese leaders' foreign and security policy agenda and is assigned increasing strategic significance.

"China's Intentions in The Arctic Are Unclear - And That is a Growing Concern," Trine Jonassen, High North News, 20 October 2024 [10]

https://www.highnorthnews.com/en/we-are-unclear-about-chinas-intention-arctic-and-growing-consern

Overview:

“When I first attended the Arctic Circle Assembly conference, the tone and content were different than now. The focus on security in the Arctic has become much stronger", says Admiral Rob Bauer, head of NATO's military committee. Now he warns about China's unclear, two-faced and increasing activity in the Arctic and the worrying Sino-Russian ties.

As Chair of the NATO Military Committee since June 2021, military advisor to the NATO Secretary General and the North Atlantic Council (NATO's principal political decision-making body), Admiral Robert Bauer (61) is the alliance's top military authority.

At least until January [2025], when he retires after 44 years of service.

For the third executive year, Robert Bauer - or Rob - was invited to the Arctic Circle Assembly in Reykjavik, Iceland, to share the latest insights on NATO in the Arctic.

Current & Relevant Information:

Butting heads

Bauer is not known to hold back, as at the 2022 edition of the conference when he very publicly butted heads with the Chinese ambassador to Iceland, He Rulong, who objected to Bauer's suspicions about China's increased presence in the Arctic.

“Two years ago, the Chinese ambassador to Iceland accused me of paranoia and arrogance when I predicted at this conference that China would enter the Arctic Ocean. And as it turns out, unfortunately, it was an accurate prediction,” Bauer says from the stage.

"He hasn't spoken up since. It's fascinating", Bauer comments as he sits back with a cup of coffee after the speech and Q&A.

A clear military aspect

Rob Bauer hasn't softened to China since then. In fact, he is not happy with being right in his predictions.

“My message remains unchanged. There is increased cooperation between Russia and China in this region that has a clear military aspect to it,” Bauer says.

Chinas actions speak for themselves.

In early October, China's coast guard vessels entered the Arctic Ocean for the first time patrolling the waters with Russian ships.

Just last month, China joined Russia in the *Ocean 24* exercise across the Arctic Oceans.

More Sino-Russian cooperation

"This Sino-Russian mission underlines the growing and worrying cooperation between Beijing and Moscow also in the Arctic", says Admiral Bauer.

Russia is also increasingly cooperating with China on minerals and shipping routes, which could affect stability in the region.

And in June, Russia's state nuclear agency Rosatom and China's NewNew shipping announced a partnership to establish a year-round container shipping line along the Northern Sea route.

Unclear intentions

The North Atlantic Treaty Organization sees China as a growing challenge as China's defense grows in the number of capabilities in general, but also in the Arctic.

"It's not clear what China's intentions are. They're not transparent about it," Bauer says with a frown as to emphasize the concern.

He adjusts his already perfectly stiff cuffs, which shine white against the black and heavily decorated Dutch navy uniform. The bright blue NATO badge hangs close to the admiral's heart.

"China talks about itself as a near-Arctic state, which is fascinating. You need quite a lot of imagination to say you're near the Arctic if you're China. But that's what they call themselves," comments Bauer.

Fast growing military

For a long time, China was only scientifically interested in the Arctic. The military aspect is something new.

"We don't understand why they are in the Arctic. If you don't understand why a nation with a growing military — and China's military is growing rapidly, including nuclear weapons — is here, that's worrisome. It is also not entirely clear why they grow so quickly. So that worries the alliance."

You say you don't know why China has increased its presence in the Arctic. What exactly are your concerns?

"Conflicts in one region have global consequences. That is why the conflict in Ukraine draws attention in nations such as New Zealand, Australia, Japan, South Korea. They understand that what is happening in Ukraine with Russia can happen anywhere. The violation of a sovereign state and internationally recognized borders can also happen in their region, and they are very concerned about the capabilities and the increasing aggressiveness of China, says Rob Bauer, leaning forward.

"Look at what China is doing to the Philippines. China's behavior is not reassuring. There are more and more nations concerned about what China is doing, such as harassing ships in the South China Sea

All the right answers

When put on the spot, China has the perfect answers.

"China is saying the right things, that they will abide to international rules and respect sovereignty. But if you look at their behavior, there are several examples of them not living up to those rules. China is growing in space and becoming more assertive. So even if we are not physically close to each other, there are serious concerns about what the Chinese are doing, why they are doing it, and if the waterways open up in the Arctic and China operates more in the Arctic with Russia, that means they are physically getting much closer to us. And their ability to reach us relatively quickly through the Arctic is then a possibility."

Conflict over recourses

The NATO officer also takes into account climate change and ice-free Arctic waters. If this happens, resources may become more accessible, such as moving fish stocks, oil, gas and minerals.

Are we talking war on resources?

"It is doubtful that Russia will allow us to sail through their sea route. But if it is an international passage, Russia cannot control it in the same way as their territorial waters. If they allow China but not the rest of the world, it creates tensions due to lost equal opportunities."

He makes it clear that China is not a threat, it is a concern. Russia, for its part, is categorized as a clear threat.

NATO knew

If only a few saw the invasion of Ukraine coming, the defense alliance will make sure that no one will be unprepared going forward.

Since the war, the NATO members have ramped up its defense spendings and welcomed Sweden and Finland to the alliance.

NATO were not surprised by the attack, as they observed the Russian military build-up at the Ukrainian border before 24 February 2022. And they knew within a window of three hours when the attack was going to happen.

Responded swiftly

“A number of nations could not believe that Putin was going to attack Ukraine. But a majority of the allies expected the invasion to happen", says Bauer, recalling the alliance's quick response on the fatal night.

"NATO responded to the attack within an hour, and by then we had an agreement on how to react. 40,000 troops came under the Supreme Allied Commander Europe (SACEUR).

Like a wolf raising its bristles to scare off an intruder, NATO had hundreds of planes and ships out in no time.

“We were able to show Putin that he should not attack us. And Russia has not attacked NATO in the last 75 years, so deterrence works. And that's what the alliance is all about, to make sure we keep our citizens safe. Preferably without fighting, but if necessary we will", says the alliance officer, lowering his voice.

“No one can afford to be surprised again.”

Prepare for reality

What has changed since the invasion of Ukraine?

"The change we have seen in NATO in the last couple of years is the realization that it is not enough to talk about it. The big change after February 24, 2022 is that many people saw the world as they wanted it to be. And for the first time in decades, people understood that that's not how it works. You cannot plan for the world you dream of. You have to respond to reality.”

The reality today is that Nordic allies invest deeply in their capabilities and equipment. This means that jets and ships can better patrol the skies and seas in the Arctic.

Perfect timing

This week, during the NATO defense ministers' meeting in Brussels, 13 allies launched the North Link initiative. Four weeks ago, the chiefs of defense in Denmark, Finland, Iceland, Norway and Sweden signed the Nordic defense concept.

According to the admiral, this could not have come at a better time as Russia continues to ramp up its military presence in the Arctic:

"Which is home to the Northern Fleet's nuclear submarines, missile facilities, airfields, radar stations and troops. Russia's largest force is stationed on the Kola Peninsula, which shares a border with Norway and Finland."

Critical undersea infrastructures

There is also a new Critical Undersea Infrastructure Coordination Cell (CUI) at NATO headquarters in Brussel in place. Bauer explains that this is not a NATO command, but works through coordination and cooperation with the private sector.

NATO have also established a Maritime Centre for Security of Critical Undersea Infrastructure within NATO’s Maritime Command (MARCOM) in Northwood, UK.

The center is dedicated to the security of thousands of miles of undersea energy pipelines and cables, which are vulnerable to attacks aimed at disrupting energy supply, global communications and economic activity.

“We will get a better overview of the activities that are ongoing. If you know what the norm is, you spot deviations when there is a different pattern.”

Not automatically an act of war

Does NATO's involvement mean that damage to underwater infrastructure can be seen as an act of war?

“Not automatically. For that to happen, you need to understand who did it. Attribution is important, and not easy. If it is a nation, you must be able to prove it. Is it an accident or on purpose? All these things are important before you declare war.”

So is Russia really a threat to the Nordic countries?

In September, Russian Foreign Minister Sergei Lavrov said that Russia is fully ready to defend its interests in the Arctic region.

Not automatically an act of war

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So is Russia really a threat to the Nordic countries?

In September, Russian Foreign Minister Sergei Lavrov said that Russia is fully ready to defend its interests in the Arctic region.

The minister said that NATO is increasingly interested in the Arctic region, "claiming that the North Atlantic Alliance also has its own interests there, due to the geographical location."

Lavrov acknowledges that Norway – as a founding member of NATO – must keep an eye on the region.

"However, the Arctic is not the territory of the North Atlantic alliance."

Bauer's response is that NATO will also defend its interest in this region.

It is a tit for tat game of strength and deterrence.

Numerous military exercises

Over the past few years, the defense alliance has practiced extensively in the Arctic.

Admiral Bauer mentions the doubled number of ships patrolling the North and the Baltic Sea, increased intelligence sharing and a range of protective military activities carried out through the Joint Expeditionary Force.

"Canada and the Nordic countries plan to create a new Arctic security dialogue to coordinate defense, intelligence and cyber threats."

And the United States, Canada and Finland have announced their intention to build new polar icebreakers through the Icebreaker Collaboration
Effort, commonly referred to as the ICE Pact.

Finally, the Pentagon has updated its Arctic strategy, focusing on exercising American presence in the region and training with allies and partners.

However, Rob Bauer emphasizes that NATO does not want war with Russia.

"But because they are the biggest threat, we have made all our plans based on those threats and to be ready."

War or no war?

The question everybody who lives in the High North wants to know is, should we worry about an attack from Russia?

"Putin says it's ridiculous that he would attack NATO. So why is NATO so worried? Well, he also said he wouldn't attack Ukraine, and he did. He said he wouldn't attack Crimea, and he did. He said he would not attack Georgia. And he did. What Putin says and what he does are two different things."

Bauer pauses. The admiral does not come across as a man who gesture much, but now he raises his hands as to make a visually clear point.

"We know through a treaty text that we received at NATO headquarters in December 2021 that Russian ambitions are much greater than Ukraine. Putin basically wants to return to the 1997 borders in terms of spheres of influence, which would mean that all the nations that have since joined the alliance - the Baltic states, Poland, Slovakia, Hungary, Romania, Bulgaria - would be second-ranked NATO members, and we would not be allowed to have foreign troops in these countries. We would only be able to train there once a year with a brigade for two weeks with other forces."

He leans back and rests his hands on the armrests of the chair.

"Of course we have said that it is not going to happen because these nations are members of NATO and they have the same rights as all other nations. But that is what Putin wants. It is not a theory. No, we are not at war, but Russia is our biggest threat and you should believe this because Putin has shown us many times what he is willing to do."

“Further talks with Russia will serve no purpose. Putin only understands power and strength.”

Nuclear saber-rattling

The Russian president has resorted to a pattern of nuclear saber-rattling that is of Western concern. But how do we know when it’s the real thing?

In the July 2024 Washington Summit Declaration, NATO declared that as long as nuclear weapons exist, NATO will remain a nuclear alliance.

“That means you have to be willing to use it if necessary. But it is a weapon of last resort because we have agreed with Russia and China that the nuclear war will never be fought. And will never be won. That's the problem. If that taboo is broken by someone, we have a serious problem as a planet.”

New nuclear doctrine

Recently, Russia changed its nuclear doctrine "in response to Western intervention in the escalating war in Ukraine," as Russian Deputy Foreign Minister Sergey Ryabkov said in September.

“The Russian doctrine covers the use of tactical nuclear weapons, and they talk about it almost every week now. If you repeatedly threaten to use nuclear weapons and you don't do it, it loses power after week four, and maybe sooner. The problem with nuclear weapons, though, is that when they hit, it's pretty bad. So we have to take this very, very seriously", says a serious Bauer, before loosening the mood:

"But the good news so far is that it's rhetoric and we haven't seen anything that forces us to change our nuclear power strategy."

Tough choices

As mentioned, Admiral Bauer does not hold back. And the clearly spoken Dutch officer also has a clear message for the European population, which has the potential to set back the work on climate.

The question of a self-sufficient Europe, free from dependence on China's minerals.

That means some tough choices have to be made.

China largely controls the mineral resources we need for energy and the green shift. But what happens if these resources become unavailable to Europe?

"We all want to save the planet, and I'm not being cynical about this. We all want to get rid of fossil fuels. But nobody dares to go for nuclear energy, which I think we should discuss, but ok. There are renewable energies like wind, water and solar power. However, 95 percent of the rare earth materials and components we need for renewable energy are in the hands of China," explains Bauer.

From the stage, he points to the dependence on Russian gas and what happened when the economic sanctions kicked in after the war.

"Then we had a serious problem. We thought we had a contract with the Russian state-owned gas company Gazprom. But we didn't. We had a contract with Putin. So if we think we have a contract with Chinese companies, we are naive. Because when we have changed our energy sources to renewable energy in five to seven years because we want to save the planet…"

Bauer looks at the crowd inside Harpa's concert hall who are almost sitting on top of each other to hear the admiral's speech.

"Then we are seriously fu... Yes."

And the crowd goes wild. Well, as wild as a crowd of mostly well-dressed and well-behaved politicians, scientists and economists can go.

After the applause and laughter die down, Robert Bauer offers a solution to the dilemma he just painted. Although it may not be popular.

"Rare earth materials are not necessarily that rare. They are found, for example, in nations such as Canada, Sweden, Finland and Norway. We could mine them ourselves, but then we will ruin the planet. We must understand the consequences of this discussion. I am not saying that this is the best option, but if we are completely dependent on China, it is not good. And we can become less dependent on China because we have these minerals in our part of the world. But to do that, we have to accept that it has a consequence for the climate.

"So it is difficult."

“Arctic security: evolution of Arctic security dynamics and prospect for a security regime in the Arctic,” Deng Beixi, Advances in Polar Science, 23 September 2016 [11]
https://www.researchgate.net/profile/Beixi_Deng/publication/330039203_Arctic_security_evolution_of_Arctic_security_dynamics_and_prospect_for_a_security_regime_in_the_Arctic/links/5c2b36c2a6fdccfc70752e6e/Arctic-security-evolution-of-Arctic-security-dynamics-and-prospect-for-a-security-regime-in-the-Arctic.pdf

Abstract:

The security dynamics in the Arctic since the Cold War has transitioned from militarization, to de-militarization, and to re-militarization. Under the circumstances of ongoing globalization and climate change, the Arctic states have accorded priority to the enhancement of military capacities in the region, with a view to safeguarding sovereign rights, ensuring navigation security of Arctic waterways, responding to contingencies and guaranteeing civil security. Such military capacity-building measures are otherwise interpreted as initiatives to resume arms race in the Arctic, which would be contributive to the security dilemma. Subject to the structural

competition of the U.S. – Russia rivalry, there has long been an absence of a security regime in the Arctic. Nevertheless, the build-up of security regimes in the Arctic constitutes a major concern for the Arctic states, as well as for some extra-regional stakeholders. In the Arctic regional context, the ever-intensifying institutional cooperation in the domains of nontraditional and civil security lays the cornerstone for establishing confidence-building measures, and gives rise to the consensus that maintaining cooperation in the Arctic will be mutually rewarding for all.

Current & Relevant Information:

Implications of Arctic security for China

China, as an Arctic extra-regional state, has no conflicts of interest with the Arctic states in terms of sovereignty, sovereign rights and jurisdictions in the Arctic region. However, this does not mean that the security situation in the Arctic is unrelated to China. On one hand, as a potential user of Arctic resources and sea routes, China is seeking regional peace and stability for its engagement in Arctic development cooperation. On the other hand, with China being a state situated in the mid-latitudes of Northern Hemisphere, the weaponry (e.g. missile defense systems and nuclear submarines) and military installations that both Russia and the U.S. have deployed in the Arctic, impose deterrence against China. The absolute advantages of Russia and the U.S. in terms of Arctic air supremacy and mastery of the strategic channels (e.g. the Bering Strait) pose challenges as well to China's potential commercial use of Arctic sea routes. In addition, as an official statement of China's Arctic policy still appears to be vague, China's engagement in Arctic issues tends to be labeled as "China's emerging threat" or "China's hunger for Arctic resources" with the hypothesis that China is unsatisfied with its observer status within the Arctic Council, and China is therefore thought likely to become a revisionist power attempting to transform the current Arctic order and to re-allocate rights and the interests in the Arctic. Accordingly, while paying close attention to the development of Arctic security dynamics, China should wisely participate in the multilateral cooperation in low politics and non-traditional security such as SAR, and prevention of marine oil pollution in the Arctic. In doing so China can build mutual trust with the Arctic states and contribute to shaping a stable political environment favorable to China's engagement in sustainable and cooperative Arctic development.

"China's Interests in the Arctic: Opportunities and Challenges Examining the implications of China's Arctic policy white paper," Nong Hong, Institute for China-America Studies, March 2018 [12] http://chinaus-icas.org/wp-content/uploads/2018/03/2018.03.06-China-Arctic-Report.pdf

Summary:

The geopolitical landscape of the Arctic today is a significant departure from the great power politics of the Cold War. Apart from traditional Arctic states, far more international organizations and non-Arctic states are showing an increased interest

in the Arctic. This report explores the growing interests of China in the Arctic and examines the motivations behind its involvement in the region. China's interests range from participating in Arctic governance, promoting bilateral diplomacy in the Arctic area, accessing potential resources, exploiting shipping opportunities and undertaking polar research. Thus far, China's involvement in the Arctic has been fairly low-profile. Since obtaining observer status on the Arctic Council in 2013, China has modestly bolstered its bilateral relations with Arctic states and participated in the development of resources in the region.

The State Council Information Office of China published a white paper titled "China's Arctic Policy" on January 26, 2018. China's policy goals in the Arctic are shaped by four key principles—to understand, protect, develop and participate in the governance of the Arctic. In order to realize these policy goals, the white paper emphasizes the need for "respect, cooperation, win-win result and sustainability." These policy goals and principles are reflected in the respective areas that China has shown interest in, which are analyzed in this report.

China's Arctic white paper is the result of policymakers' careful deliberation. It also reflects the longstanding expectations of researchers, countries and international organizations involved in Arctic governance. The recent expansion of China's role has invited international suspicion of its intentions in the Arctic, especially from council member states. China's new white paper spells out its intentions for the Arctic and should relieve some concerns over its transparency and commitment to international law.

China's Arctic strategy is only just beginning to unfold and still faces many challenges, including the Arctic states' disputes over territorial sovereignty, vigilance among certain countries, the natural environment in the Arctic region and China's technological constraints. Nevertheless, with China's newly released Arctic policy white paper, China has emphasized a key theme—cooperation.

Current & Relevant Information:

Introduction

The geopolitical landscape of the Arctic today is a significant departure from the great power politics that existed in the region during the Cold War. The supremacy of the military presence and security interests of the two superpowers during that time have now been replaced by the multiple political interests of the eight North Pole states, dominated mainly by the military and security interests and naval capacity of Russia, Canada, the United States, Norway and Denmark. Through the Ilulissat Declaration in 2008, these five Arctic coastal states (the Arctic Five) have asserted the predominant role in addressing both territorial issues and emerging issues related to resource development in the Arctic region (Yeager, 2008).

The exclusivity of Arctic governance has been challenged by the activities of states from outside the region, such as the United Kingdom, France, Germany, China, Japan, South Korea and India; these states are taking a special interest in many aspects of the Arctic that focus on scientific research, shipping and resource development. Estimated oil and gas reserves in the continental shelves of the northern seas and visions of new trans-Arctic sea routes are also attractive to transnational corporations that are increasingly interested in the potential commercial value of Arctic energy resources (Robinson 2007: 21). This report explores the growing interests of China in the Arctic and examines the nature of its interests and motivations in wanting to maintain its involvement and presence in the region. China's interests range from participating in Arctic governance and accessing potential resources to exploiting shipping opportunities and undertaking polar research.

Vigilance among Arctic states

China has actively sought to have a say in Arctic affairs through multilateral and bilateral means. Unfortunately, China's intentions have been met with suspicion by Arctic states. China's application to become a permanent observer of the Arctic Council was rejected three times before being approved, which demonstrates the vigilance of the Arctic states, especially the five coastal states bordering the Arctic Sea.

Of the five coastal states, the most vigilant are Russia and Canada. These two states seek to control the northern and north-western sea lanes respectively, but China has yet to recognize their rights over these two lanes (Jakobson 2013). Russia in particular has shown serious bias against China's attempts to join the Arctic Council. Ever since Russia planted its flag on the Arctic seabed in 2007, China has paid a great deal of attention to the region. In 2012, after China's icebreaker Xue Long (Snow Dragon) finished its fifth scientific survey in the Arctic region, it returned to Shanghai through the northern sea lane of the Arctic, which runs along the Russian coast. Because this sea lane has been emblematic of Russian influence, it is natural that the expansion of China's influence would invite vigilance from Russia.

China's growing interest in the Arctic has enhanced the vigilance of the Russian military, which is highly sensitive to security issues. In a rare public warning to China in 2010, Russian Navy Commander Admiral Vladimir Vysotsky said "We are observing the penetration of a host of states which...are advancing their interests very intensively, in every possible way, in particular China," and stressed that Russia would increase its military presence in the Arctic to defend Russia's interests (Reuters 2010). In 2012, Russia resumed its live-fire drills in Arctic waters. In February 2013, Russian President Vladimir Putin remarked in a conversation that Russia's interests in the Arctic were under threat and necessitated enhanced military actions. In September 2013, Russia announced that it would reopen a military base

in the New Siberian Islands and resume its former permanent military presence there.

Canada also harbors suspicions against China, which are equal to if not greater than those of Russia. In 2012, an opinion poll conducted by the Asia Pacific Foundation of Canada showed that only 12 percent of Canadians had a favorable impression of China, and 29 percent had an unfavorable impression. Although Canadian officials do not show vigilance against China, the Canadian academic community has shown suspicion. Professors David Wright and Rob Huebert from University of Calgary and Victor Suthren from the Canadian War Museum are concerned about China's stance on Arctic affairs. For example, they assume that China believes the Arctic is open to the international community and does not acknowledge Canadian sovereignty over northwestern sea lanes. Canada is also suspicious of China's desire for resources, sea lanes and strategic positions in the Arctic region; China's accelerated pace of military modernization suggests the possibility that China might enhance its military presence in the region. Commodore Tyrone Pile, Commander of the Canadian Fleet Atlantic, was quoted by the Calgary Herald as saying that the Chinese Navy would soon have twice as many submarines as the U.S. Navy, leading the newspaper to ask whether Canada was prepared to defend its Arctic sovereignty (Lackenbauer and Manicom 2013: 3-5).

Interestingly, Canada is the Arctic state that seems the most concerned about what China's Arctic policy white paper will mean for them. Canadian experts say that China's Arctic policy is attempting to tread a line between respecting the sovereignty of Arctic nations like Canada and the United States, and leaving room to benefit from disputes under international law. Language used in the white paper—such as "respect for international law"—is viewed by scholars like Robert Huebert and professor Frédéric Lasserre of Université Laval to be an attempt to articulate limits on member states' sovereignty.

Even non-coastal states in the Arctic are suspicious of China. Iceland has rejected a Chinese businessman's attempts to buy its land twice, suspecting that he might build a harbor there even though Iceland was assured that the land would be used to build a golf course (The Disaffected Lib 2013). The attitudes of Iceland and Russia signal that China will encounter many challenges in future efforts to take part in Arctic affairs.

Still, the white paper sends a positive signal to Chinese researchers and policy practitioners who now have clear strategic guidance. The international community, including Arctic Council member states, have welcomed the transparency and increased confidence China shows in participating in Arctic governance. As China experiences rapid military and economic growth, suspicions regarding its global strategic intentions as it moves towards the Arctic are unavoidable. The white paper integrates the Chinese narrative into Western discourse, defining itself as an important stakeholder. This narrative has won recognition and respect from the

international community and serves to reduce concerns from the Arctic Council member states (Hong 2018).

Conclusion

China's interests range from participating in Arctic governance affairs, promoting bilateral diplomacy in the Arctic area and accessing potential resources to exploiting shipping opportunities and undertaking polar research. Thus far, China's involvement in the Arctic has been fairly low-profile. Since obtaining observer status on the Arctic Council in 2013, China has modestly bolstered its bilateral relations with Arctic states and participated in the development of resources in the region.

The recently published white paper titled "China's Arctic Policy" implies that the policy goals on the Arctic are shaped by four key principles—to understand, protect, develop and participate in the governance of the Arctic. In order to realize these policy goals, the white paper emphasizes the need for "respect, cooperation, win-win result and sustainability."

China's Arctic strategy is only just beginning to unfold and still faces many challenges, including the Arctic states' disputes over territorial sovereignty, vigilance among certain countries, the natural environment in the Arctic region and China's technological constraints. Nevertheless, with China's newly released Arctic policy white paper, China has emphasized a key theme—cooperation.

2. Geopolitical Environment:

"The New Geopolitics of the Arctic: Russia's and China's Evolving Role in the Region," Stephanie Pezard, The RAND Corporation, 26 November 2018 [13] https://www.rand.org/content/dam/rand/pubs/testimonies/CT500/CT500/RAND_CT500.pdf

Overview:

Chairperson Levitt, Deputy Chairperson O'Toole, Deputy Chairperson Laverdière, and other distinguished members of the committee, thank you very much for the opportunity to appear before you this afternoon. I am a Senior Political Scientist at the RAND Corporation, where I have conducted research and authored several publications on the Arctic, with a focus on the geopolitical implications of the region's changing physical environment. While RAND's research does not address specific policy recommendations for the Canadian government, my goal for today is to provide the committee with information to support its decision-making.

My contribution today will focus on two changes that have altered the geopolitical environment in the Arctic over the past five to ten years. One change is the increased assertiveness of one Arctic nation, Russia, in the region. The second change is the rising presence of non-Arctic states—including, but not limited to, China—in a part of the world that used to be almost exclusively of interest to Arctic

states. I will examine the origins and implications of both developments, focusing on the challenges—and, at times, opportunities—that they pose to Arctic states and to Canada in particular.

Current & Relevant Information:

China's Role in the Arctic: What Impact Can So-Called "Near-Arctic States" Have on the Region?

NATO's renewed, albeit still cautious, interest in the Arctic is yet another example of what Arctic states might see as a growing trend in the region—the increased interest of non-Arctic states in Arctic issues. The most powerful and significant of these newcomers is China.

To be fair, China's interest in polar issues is not new. China has a strong track record of research and scientific expeditions in Antarctica since the 1980s, and in the Arctic since the 1990s. Its range of interests in the Arctic has since widened and is becoming more focused on extractive, commercial, and shipping domains. In 2017, 11 of the 27 vessels that transited through the NSR originated from or were going to a Chinese port. In January 2018, China issued its first Arctic policy, which highlights in its very first paragraph China's most fundamental belief when it comes to the region: The Arctic is a global issue that cannot be left to Arctic states alone. China describes itself as a "Near Arctic State," a term that it defines as "one of the continental States that are closest to the Arctic Circle." China also makes clear that it sees the Arctic as an area of economic and investment potential, envisioning a "Polar Silk Road" integrated to its larger Belt and Road Initiative.

So far, China has remained within the boundaries of existing treaties and principles regulating Arctic affairs, and its Arctic Strategy reaffirms the authority of these rules. Increased Chinese interest also presents precious opportunities for Arctic communities, many of which are in dire need of investment and infrastructure. Yet this interest also raises various concerns. Based on China's aggressive behavior in the South China Sea, China might similarly try to impose its own interpretation of maritime international law in other regions, if the stakes are high enough. In addition, China's large investments need to be secured, and economic involvement might eventually lead to some form of military presence. China's political leverage through economic investments might have destabilizing consequences, for instance on the delicate Greenland-Mainland Denmark relationship–last March, Greenland shortlisted a Chinese company to develop three of its airports, to the dismay of the Danish government–or in relation to environmental or labor regulations. Chinese investments in certain areas, such as communications, media, and new technologies, potentially create opportunities for undue political influence or uncontrolled transfers of sensitive data or technologies. For example, China's construction of an observatory for northern lights in Iceland has raised concerns that the facility might be used for surveillance, rather than research.

So far, Arctic nations have cautiously welcomed China's willingness to play a larger role in the Arctic. China has been an observer state to the Arctic Council since 2013, and it has joint projects with several Arctic nations—particularly Russia, Canada, Greenland, Norway, and Iceland—some of which are at the exploration or prospecting stages. Chinese investments are so far relatively modest, with the exception of the Yamal LNG project with Russia.

Arctic nations are also setting limits. In 2011, Iceland blocked the sale of a large plot of land to a Chinese investor; in 2016, Denmark declined to sell a vacant naval base in Greenland to a Chinese mining company; and in that same year, a projected Chinese resort in Svalbard, under Norwegian sovereignty, was canceled. Each Arctic state—often under public pressure—is setting its own limits when it comes to welcoming Chinese presence.

Russia's approach toward China shows a similar mix of interest and caution. China is a key investor in Russia's Yamal LNG project, and Chinese funds are particularly welcome, as Russia has been shunned by some of its more traditional investors since its annexation of Crimea. Russia also welcomes Chinese interest in developing port infrastructure along the NSR. Yet Russia is also very much intent on keeping the NSR under its control. This may eventually create tensions with China, as China sees the NSR as one element of the Belt and Road Initiative and will resent obstacles to its free use of the route (the alternative route, the Northwestern Passage along the northern shore of Canada, is not considered a viable replacement because of poor navigation conditions and a lack of infrastructure). While Russia and China are formally allies through the Shanghai Cooperation Organization, Russia remains wary of China's military power on its southern border and, as an Arctic nation, is irritated by the intrusion in Arctic affairs of non-Arctic states, as evidenced by its long-standing reluctance to grant observer status to these countries in the Arctic Council.

Because of the economic and military power that China commands, the level of concern triggered by its interest in the Arctic is without equivalent. However, it is not the only non-Arctic state to develop an Arctic policy and look for a deeper commitment to the region. Most other observer states to the Arctic Council have an Arctic strategy, a polar strategy, or at least some official guidelines regarding their Arctic policy. Most recently, in September 2018, the United Kingdom released a Defense Arctic strategy that highlights a closer training relationship with Norway and intensified surveillance of submarine activity in the Arctic. India is now investing in Russia's extractive industry in the Arctic. It remains to be seen whether, like China, these non-Arctic nations see themselves as "near Arctic states" that cannot leave the leadership of a strategic region to eight nations only; and whether they might find it advantageous to coalesce as a group of like-minded countries to seek more political and decisional weight both within the Arctic Council and in other international fora.

So far, the approach of Arctic states has been to coopt non-Arctic states rather than exclude them. Most have been eventually accepted as observer states in the Arctic Council, and they are participating in the development of new rules for the Arctic. For instance, China—along with Japan and South Korea, as well as the European Union—has participated in the discussions that eventually led to prohibiting commercial fishing in the Central Arctic Ocean. Yet Arctic nations have made clear that the broader legal background for such development should remain the United Nations Convention on the Law of the Sea and other existing principles of international law. As stated in the 2008 Ilulissat Declaration, they reject the development of new international rules specifically for the Arctic—an equivalent of the Antarctica Treaty—as such a treaty would require painful negotiations and would likely be less advantageous for them than the current system.

To conclude, I would highlight what I see as perhaps the biggest change occurring in the Arctic, and the one that is of most significance for Canada and other Arctic states: The Arctic, which used to be the ultimate periphery, is slowly but surely turning into a center—a center of economic activity and investment, a shipping hub, a transit point between areas of strategic interest, and a military chokepoint. The Arctic connects Russia's oil and gas industries to Asian markets; China's manufactured goods to European markets; and Russia's Northern Fleet to the Atlantic sea lanes and, further south, the Mediterranean. This is not a projection but the current situation, and these trends will only become more pronounced over time, as the NSR becomes more routinely navigable; communications and maritime awareness improve; and, eventually, a brand-new Transpolar Route opens. Canada and other Arctic states face the key challenge of balancing their sovereign interests against the ever-growing interest of non-Arctic nations.

"The New Geopolitics of the Arctic: Russia, China and the EU," Andreas Østhagen, Wilfried Martens Centre for European Studies, April 2019 [14]
https://euagenda.eu/upload/publications/untitled-212267-ea.pdf

Abstract:

The Arctic is changing. Facing challenges driven by resource demands, changing power relations and climate change, the top of the world demands the attention of European states and EU officials. This paper examines the main geopolitical issues in the Arctic, such as the development of the region's energy resources, the underlying potential for conflict and the increasing presence of China in the region. It argues that to unpack the region's complexities, we need to recognize the variability within the Arctic across a range of issues and to differentiate different levels of analysis: the international and the regional. Furthermore, this paper argues that the EU's approach to the north suffers as a result of a general deficiency in EU external policies, namely incoherence and a multitude of voices and opinions. To have a more effective Arctic policy, the EU needs to distinguish between the different levels outlined here, raise awareness of the issues facing the Arctic among its member

states and politicians, and better communicate the relevance of the Union to Arctic states. The EU must view the Arctic primarily as a long-term strategic priority and as an area of growing geopolitical importance.

Current & Relevant Information:

Introduction

In 2006–7, researchers, policymakers and the media alike began making a range of claims about the future of the Arctic. Climate change is accelerating the melting of the ice in the north. Coupled with high oil prices and positive estimates of the region's hydrocarbon resources, this led to the Arctic being portrayed as both the world's new energy frontier and the northern 'shortcut' to Asia. As the Arctic littoral states—Denmark (Greenland), the US, Russia, Norway and Canada—placed the north on their domestic and foreign policy agendas, and non-Arctic states such as Japan, France, Germany and China expressed interest in the region, predictions were made that the Arctic would become the next arena for geopolitical conflict.

Since then world events have taken a turn. The fall in the price of oil and gas transformed hopeful Arctic resource projects into unprofitable ventures. Russian ice-breaker levies and high operating costs turned trans-Arctic shipping into a long-term prospect. The focus shifted to northern industries that were already profitable, such as mining, tourism and fisheries. Simplistic predictions about an Arctic 'boom' turned into equally simplistic forecasts of an Arctic 'bust'. However, as Russia's relationship with the 'West' deteriorated in 2014 over Ukraine and later Syria, headlines warning of an imminent confrontation in the Arctic reappeared. This time it was not the region's resources that were fueling a scramble: it was the region's growing strategic importance for NATO, Russia and even China. The result of these predictions, however, tuned out to be the same: Arctic states have been, and still are, placing pieces on the chessboard in advance of an imminent geopolitical conflict in the north.

However, studies were quick to point out that many of the Arctic predictions were largely inaccurate, whether they had been made before or after Russia's annexation of Ukraine's Crimea region in 2014. Over the past decade scholars have produced more balanced depictions of the dynamics both within the region as a whole and among the various actors with a stake in the Arctic. Moreover, foreign ministries in Arctic states have been particularly active in emphasizing the 'peaceful' and 'cooperative' traits of the region. Even China—an actor prompting a sense of skepticism and uncertainty in northern countries—has played according to the Arctic 'rule book'. It has reiterated the primacy of the United Nations Convention on the Law of the Sea (UNCLOS); and in its White Paper on the Arctic, it emphasizes the importance of cooperation. Finally, those inhabiting the Arctic region—indigenous as well as non-indigenous peoples—have been demanding the right to partake in

decision-making forums concerned with Arctic development and have been insisting that there should be less talk about geopolitics and quick business opportunities.

There thus seems to be a multitude of actors, layers and levels at play—the situation warrants further unpacking. The main question this paper asks is, what are the geopolitical characteristics of the Arctic region? By extension, how accurate are the predictions of conflict in and over the Arctic? What is the role of China in all this? And what do these developments entail for the EU and for its ambitions to be an Arctic actor? To answer these relatively large questions in a limited amount of space, a few key points will be made. First, we need to divide the analysis into different levels. This means that, instead of treating all issues as interrelated and part of one picture, we have to differentiate the systemic (international) level from its regional (Arctic) counterpart. In this way we will be able to disentangle some of the arguments already mentioned. Second, when examining issues within each level, we need to recognize the inherent variability of the region. The paper will show that when we think of Arctic security, it makes more sense to divide the area into subregions: The North American Arctic, on the one hand, and the Eurasian Arctic, on the other. Finally, it is not possible to boil down the dynamics of the Arctic to an antithesis between conflict and non-conflict.

What about China?

There have been a great many reactions from Arctic states and Arctic actors to China's involvement in the top of the world since 2007–8. How can we explain China's involvement in the north, and what are its interests in the Arctic?

These questions have three dimensions: two are region-specific and one is connected to the systemic level described in the previous section. First, China has a considerable research presence in the Arctic, particularly on Svalbard; moreover, it is investing in research equipment and infrastructure destined for the Arctic. This research is mainly focused on natural science and utilizing the Arctic—as many scientists are—as a testing ground for climate predictions and for examining the effects of human activities further south. In a country with ambitious research agendas, a wide range of scholars and researchers are pushing for China to become involved in the Arctic for such purposes.

Second, China has stated economic interests in the north. These range from ensuring it has an advantageous position in the development of the Northern Sea Route, to investing in infrastructure projects and extractive industries. China's One Belt One Road initiative has an Arctic dimension known as the 'Ice Silk Road'. It entails exploring how northern sea-lanes, in tandem with rail capacity, can add to the country's world trade links. The Chinese 'Silk Road Fund' and the China National Petroleum Corporation have 9.9% and 20% stakes, respectively, in the large-scale Yamal Liquefied Natural Gas project in Arctic Russia. This ties Russia and China closer together in the development of Arctic gas resources. As well as long-term

prospects and strategic investments, immediate economic prospects are undoubtedly of relevance to China's Arctic endeavor.

Finally, China's involvement in the Arctic also concerns its position as an emerging superpower. As China continues to assert its influence on the world stage, the Arctic will be only one of many regions where presence and interaction are components of an expansion of power in both soft and hard terms. Ensuring Chinese interests, ranging from businesses to opinions on developments related to the Law of the Sea, is a natural part of this expansion, just as it has been for the US over the last half-century. Limited tension between Arctic actors and China might arise, but the Arctic is still predominantly a harsh and challenging domain where the Arctic states will retain their primacy. What is more likely is that the impact of conflicts elsewhere, including those involving China, would spill over into the Arctic. This would be due, not to the Arctic's resources or to internal power struggles, but to the strategic importance of the Arctic and the importance it holds for some NATO countries and for Russia.

However, Chinese officials have made few comments on the importance of the Arctic to China. References have been made to China as a 'near Arctic state', a situation which demands involvement. At the same time, China is not accepted as an Arctic state and has largely been excluded from regional politics. It has pursued a low-profile approach to the region focused on cooperation—often bilateral—with the Arctic states. In tune with policy documents in all circumpolar states, Beijing has emphasized principles such as cooperation, win–win results and sustainability. In late 2016, Norway and China resumed normal diplomatic relations, which had been in limbo since the Nobel Peace Prize Committee awarded the prize to Chinese dissident Liu Xiaobo in 2010. China has also taken steps to strengthen relations with all Nordic countries over the last decade. The Arctic has similarly been a component in Beijing's efforts to expand relations with both Russia and Canada in recent years.

With the White Paper launched in the spring of 2018, China signaled its desire to be taken seriously as an Arctic actor, even though it is not an Arctic state in geographical terms. China is now entering a new phase of its northern endeavor, emboldened by its international stature and relationship with Russia. It remains to be seen exactly how this will translate into concrete policies or actions, such as those connected to One Belt One Road. Relations between Arctic countries and those non-Arctic countries that are present in the region are thus likely to be significantly affected by the broader ongoing power shift in the international system, that is, the rise of China. In the short-to-medium term, relations between the two sets of countries are likely to be shaped more by developments outside the region than by those within it. And in the Arctic, Russia and—increasingly—China hold central positions.

Especially relevant are the questions of China's adherence to UNCLOS and how it views the role of this international regime in relation to its own Arctic interests. So far

UNCLOS has been the strongest guarantee of mutual interests in a cooperative region, supporting the interests of the Arctic states themselves. Challenges to this regime could arise from developments in high-seas fisheries and/or protected marine areas, overlapping continental seabed claims or the increasingly common discussions on the status of Arctic sea-lanes. Such challenges could spur questions about the flexibility and adaptability of UNCLOS in a context characterized by changing power dynamics and climatic change. Here China plays a key role.

Conclusion

The Arctic will keep growing in importance to northern states and the international community for two intertwined reasons: (1) the unremitting disappearance of the Arctic sea ice will allow for more activity, and (2) some of the world's greatest powers are investing in, and focusing on, the region. However, the dynamics of this region cannot be boiled down to the mutually exclusive options of conflict or no conflict. A race for Arctic resources or territory is highly unlikely in the foreseeable future, despite the territorial land grabs that have been occurring in other parts of the world. Thus, it is not the influence of geography on politics that has the potential to cause conflict in the Arctic.

At the same time, the region's growing importance within the international system is becoming increasingly apparent. In this regard the Arctic stands as an arena where the US, Russia and China interact with the EU. Here the EU has several roles to play. It can ensure that its member states and institutions are aware of the complexities of the region, whether these relate to the livelihoods of indigenous peoples or to Russia's (and other Arctic states') military investments. The EU should only involve itself in the Arctic in a regional (and non-threatening) manner. Beyond this, the EU needs to recognize the increasing importance of the Arctic within the international system and the role the Union plays in shaping the region. This it can do by setting clear visionary goals in line with its own interests as the world's second largest economy, after China.

"Chinese scientists are increasingly shaping the future of the Arctic amid China's rising presence," Mathieu Landriault, The Conversation, 5 June 2024 [15]
https://theconversation.com/chinese-scientists-are-increasingly-shaping-the-future-of-the-arctic-amid-chinas-rising-presence-230509

Overview:

Scientists are playing a significant role in the Arctic region, helping to educate the world about its unique ecosystem along with the ongoing geopolitical positioning by Arctic and non-Arctic states.

Scientific research has been central in helping determine the boundaries of the continental shelf in the Arctic region to establish which states can exploit any natural

resources found in the area. Arctic states are spending millions trying to document their territorial claims.

The scientific data has been presented to experts at the United Nations Commission on the Limits of the Continental Shelf, who have then issued their recommendations to states in an effort to ascertain who owns what.

Scientific research in polar regions has also been used by non-Arctic states like China, India and South Korea to vie for observer status on the Arctic Council, the primary forum of co-operation in the region.

Furthermore, the sustained presence of China, India and the United Kingdom in Svalbard — a territory in the high Arctic under Norwegian sovereignty but open to scientists from countries that are parties to the Svalbard Treaty — is the most obvious illustration of this interest by non-Arctic states in the region.

Current & Relevant Information:

China in the Arctic

Global attention on the Arctic has intensified amid global warming, particularly since 2007. China is among the countries that have received the most amount of attention for its interest in the Arctic.

Its emergence as a global superpower, its impressive development of polar technology — including icebreakers — and its creation of an official Arctic policy have raised eyebrows about China's Arctic ambitions.

Chinese activity in the region has focused on the central Arctic Ocean, which is considered international waters beyond any state's jurisdiction. This allows non-Arctic states like China to become more engaged than they can in the rest of the Arctic.

China has signed and ratified an international agreement that prohibits commercial fisheries in these waters until at least 2037. Science is at the heart of this moratorium — scientists assess if sizeable fish stocks can be harvested from these waters and if so, they help develop sustainability guidelines to ensure the abundance of these stocks.

As China prepares to embark on its 14th annual Arctic expedition this summer, it's important to understand how Chinese scientific research is evolving in the region.

China's Arctic science

The rise of China since the early 2000s as a major Arctic science producer has continued well into the 2020s. Using Web of Science — a bibliometric database used to measure, evaluate and track scientific research — we can see the growing presence of Chinese scientists publishing on the Arctic region.

There's been a five-fold increase of Chinese scientists in the percentage of total scientific articles on the Arctic from 2000 to 2024. This increase has occurred concurrently with a significant decrease in the proportion of scientists from the United States, and to a lesser extent Canada, publishing on the topic.

As we look for areas of particular focus within the Arctic Ocean, two locations stand out: the central Arctic Ocean and Gakkel Ridge, a mountainous formation on the sea floor.

Increased Chinese scientific publications on both topics are the result of its annual Arctic expeditions. For the central Arctic Ocean, the increase is eight-fold (from one per cent to eight per cent) and six-fold for Gakkel Ridge (from two per cent to 12 per cent).

Both the central Arctic Ocean and Gakkel Ridge are critical to Chinese geopolitical interests. For the central Arctic, the potential establishment of a regional fisheries management organization is central to China's scientific research, which aims to gather additional knowledge about this little-known ecosystem.

Lifting the moratorium on commercial fisheries in the central Arctic Ocean is dependent on establishing sustainable guidelines to ensure the long-term health and survival of fish stocks in this area.

The Gakkel Ridge possesses hydrothermal vents that could contain vast amounts of critical minerals. This part of the sea floor has been contested, with Russia arguing it's a continuation of its continental mass.

Some have speculated that part of the Gakkel Ridge could become a site of mineral exploitation by non-Arctic states, including China. As of the first half of the 2020s, China is now the fourth country generating the most knowledge on this part of the Arctic region.

Little western involvement

This scientific research is produced in a peculiar fashion, with little engagement with western publications and scientists.

According to Scopus, a database encompassing scientific articles, 45 per cent of articles by Chinese scientists on the Central Arctic ocean are published in outlets run or sponsored by Chinese research institutes, especially the Chinese Society for Oceanography and the Polar Research Institute of China.

This corresponds to similar findings by researchers Mayline Strouk of the University of Edinburgh and Marion Maisonobe of University Paris Cité. They have determined that China, as well as other non-Arctic states like India and South Korea, has pursued an approach of scientific autonomy, limiting any collaboration with scientists from other countries.

That's also reflected in the authorship of scientific papers. About 65 per cent of articles published by a Chinese author on the central Arctic Ocean from 2010 to May 2024 were authored solely by Chinese researchers, with no co-authorship or participation from non-Chinese researchers.

A minority of articles were written by a multinational team of scientists that included one Chinese author, indicating that Chinese scientists did not seek to involve non-Chinese researchers in their work.

This was the case even before some western countries like Canada restricted some areas of scientific co-operation with Chinese scientists.

This number is particularly high considering China participated in the Mosaic Expedition alongside scientists from 19 other countries in 2019.

The expedition generated a wealth of knowledge and insights as the research vessel remained for a whole year in the central Arctic Ocean, immobilized by a thick ice cover. This multi-national endeavor didn't result in any changes to Chinese Arctic scientific research, which remained mostly authored only by Chinese scientists for Chinese-run publications.

Implications for Arctic states

What does this mean for Arctic states?

Simply put, the need to invest in Arctic science is critical as new players are becoming increasingly dominant when it comes to research about the region.

The presence of Arctic states in scientific publications is declining. That means important knowledge is escaping Arctic nations, and scientific priorities are increasingly reflecting the interests of foreign nations located outside the region.

Countries like China are conducting scientific research without involving scientists from other countries. This is ominous, since science is supposed to be an open, transparent and collaborative enterprise — not exactly hallmarks of the Chinese regime.

Investing in scientific research on the central Arctic Ocean is particularly important, since rules and legal regimes that will apply there will largely be guided by a fulsome scientific understanding of the region.

"Northern Expedition: China's Arctic Activities and Ambitions," Rush Doshi, Alexis Dale-Huang, and Gaoqi Zhang, Foreign Policy at Brookings, April 2021 [16]
https://www.brookings.edu/wp-content/uploads/2021/04/FP_20210412_china_arctic.pdf

Summary:

This report explores China's internal discourse on the Arctic as well as its activities and ambitions across the region. It finds that that China sometimes speaks with two

voices on the Arctic: an external one aimed at foreign audiences and a more cynical internal one emphasizing competition and Beijing's Arctic ambitions. In examining China's political, military, scientific, and economic activity — as well as its coercion of Arctic states — the report also demonstrates the seriousness of China's aspirations to become a "polar great power." China has sent high-level figures to the region 33 times in the past two decades, engaged or joined most major Arctic institutions, sought a half dozen scientific facilities in Arctic states, pursued a range of plausibly dual-use economic projects, expanded its icebreaker fleet, and even sent its naval vessels into the region. The eight Arctic sovereign states — Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, and the United States — exercise great influence over the Arctic and its strategically valuable geography. China aspires to be among them.

1. **China seeks to become a "polar great power" but downplays this goal publicly.** Speeches by President Xi Jinping and senior Chinese officials with responsibility for Arctic policy are clear that building China into a "polar great power" by 2030 is China's top polar goal. Despite the prominence of this goal in these texts, China's externally facing documents — including its white papers — rarely if ever mention it, suggesting a desire to calibrate external perceptions about its Arctic ambitions, particularly as its Arctic activities become the focus of greater international attention.

2. **China describes the Arctic as one of the world's "new strategic frontiers," ripe for rivalry and extraction.** China sees the Arctic — along with the Antarctic, the seabed, and space — as ungoverned or under governed spaces. While some of its external discourse emphasizes the need to constrain competition in these domains, several others take a more cynical view, emphasizing the need to prepare for competition within them and over their resources. A head of the Polar Research Institute for China, for example, called these kinds of public spaces the "most competitive resource treasures," China's National Security Law creates the legal capability to protect China's rights across them, and top Chinese Communist Party (CCP) officials have suggested China's share of these resources should be equal to its share of the global population.

3. **Chinese military texts treat the Arctic as a zone of future military competition.** Although several externally facing Chinese texts downplay the risk of military competition in the Arctic, which would likely be harmful to Chinese goals, military texts take the opposite perspective. They note that, "the game of great powers" will "increasingly focus on the struggle over and control of global public spaces" like the Arctic and Antarctic and argue that China "cannot rule out the possibility of using force" in this coming "scramble for new strategic spaces." Chinese diplomats describe the region as the "new commanding heights" for global military competition too while scholars suggest controlling it allows one to obtain the

“three continents and two oceans’ geographical advantage” over the Northern Hemisphere.

4. **Chinese texts make clear that its investments in Arctic science are intended to buttress its Arctic influence and strategic position.** Although externally facing messaging indicates China’s desire to pursue scientific research for its own benefit and for global welfare, China’s top scientific figures and high-level CCP members are clear that science is also motivated by a drive for “the right to speak,” for cultivating China’s “identity” as an Arctic state, and for securing resources and strategic access. China’s polar expeditions and various research stations assist Beijing with its resource extraction, with Arctic access, and with acquiring experience operating in the Arctic climate.

5. **China supports existing Arctic governance mechanisms publicly but complains about them privately.** Several Chinese texts indicate frustration with Arctic mechanisms and concern that the country will be excluded from the region’s resources. Official texts suggest gently that the region’s importance now transcends “its original inter-Arctic States,” while scholars once feared Arctic states would launch an admittedly unlikely “eight-state polar region alliance” or institutionalize the Arctic Council in ways that “strengthen their dominant position” at China’s expense. These texts stress China’s pursuit of “identity diplomacy,” namely, terming China a “near-Arctic State” because it is affected by climate change. They also indicate an interest in pushing alternative Chinese governance concepts — in some cases to supplement and other cases to run outside the Arctic Council — including a “Polar Silk Road” and China’s “community with a shared future for mankind,” though specifics are often lacking.

6. **Accommodating China’s Arctic ambitions rarely produces enduring goodwill.** Norway was the first country to allow China to build an Arctic science station and Sweden was the first worldwide to allow China to build its own completely Chinaowned satellite facility. Both these efforts, which were richly praised by China at the time, did not protect either country from later economic coercion and harsh condemnation by China. In both cases, China punished these countries not only for the actions of their governments but also for the independent actions of their civil societies, which were to award Chinese dissident Liu Xiaobo the Nobel Peace Prize and to investigate China’s kidnapping of Swedish citizen Gui Minhai. Efforts by both Norway and Sweden to reverse the slide — with Sweden keeping relatively quiet about the rendition of its citizen and Norway vigorously backing China’s pursuit of Arctic Council observer status — were only met with restrictions on Norwegian fish exports and colorful threats of coercion against Sweden.

7. **Arctic dependence on trade with China is often overstated, and trade flows are smaller than with other powers.** Chinese economic statecraft is feared by some in the Arctic and around the world, but the region’s dependence on China is remarkably small. For the five smallest Arctic economies — Sweden, Norway,

Denmark, Finland, and Iceland — China accounts for an average of only 4.0% of their exports, less than the United States (6.2%) and far less than the NATO and EU economies excluding the United States (70.3%).

8. **China has invested significantly in Arctic diplomacy to boost its regional influence.** China has sent high-level figures — at the levels of president, premier, vice president, foreign minister, and defense minister — to visit Arctic countries other than the United States and Russia 33 times over the last 20 years. Beijing lobbied heavily to become an Arctic Council observer, became a strong presence at many other regional Track II fora, and launched its own diplomatic and Track II regional efforts, including a China-Russia Arctic Forum and the China-Nordic Arctic Research Center, to deepen relations with governments and sub-national actors.

9. **China's military profile in the Arctic has increased, and its scientific efforts provide strategic advantages too.** China has dispatched naval vessels to the Arctic on two occasions, including to Alaska and later to Denmark, Sweden, and Finland for goodwill visits. It has built its first indigenously produced icebreaker, has plans for more conventional heavy icebreakers, and is considering investments in nuclear-powered icebreakers too.

10. **China's scientific activities in the Arctic give it greater operational experience and access.** China has sent 10 scientific expeditions into the region on its Xuelong icebreaker, generally with more than 100 crew members, that officials acknowledge give it useful operational and navigational experience. China has also established science and satellite facilities in Norway, Iceland, and Sweden while pursuing additional facilities in Canada and Greenland — with its facility in Norway able to berth more than two dozen individuals and provide resupply. Finally, China has used the Arctic as a testing ground for new capabilities whether related to satellites coverage, fixed-wing aircraft, autonomous underwater gliders, buoys, and even an "unmanned ice station" configured for research.

11. **China's infrastructure investments in the Arctic sometimes appear dual-use.** Several Chinese infrastructure projects that have little economic gain have raised concerns about strategic motivations and dual-use capabilities. These include efforts by a former Chinese propaganda official to purchase 250 square kilometers of Iceland to build a golf course and airfield in an area where golf cannot be played and later to buy 200 square kilometers of Norway's Svalbard archipelago. Chinese companies have also sought to purchase an old naval base in Greenland; to build three airports in Greenland; to build Scandinavia's largest port in Sweden; to acquire (successfully) a Swedish submarine base; to link Finland and the wider Arctic to China through rail; and to do the same with a major port and railway in Arkhangelsk in Russia.

12. **China's commodity investments in the Arctic have a mixed track record.** Despite some important successes, a large number of Chinese investments have

failed. For example, a major Chinese firm abandoned a Canadian zinc mine, refused to pay creditors, and left local governments to pay to clean up an environmental disaster. Another firm disappointed in its investment later sued, saying it had overpaid. In Greenland, a Chinese conglomerate abandoned its iron mine after running into legal trouble in China. In Iceland, a Chinese company withdrew from an Arctic exploration partnership due to poor initial resource estimates.

Current & Relevant Information:

INTRODUCTION

In 2010, on the sidelines of a major Chinese political conclave often referred to as the “Two Sessions,” retired Chinese naval Rear Admiral Yin Zhuo made a remarkably candid set of statements about China’s Arctic ambitions.

“I have said on many occasions that China’s population accounts for one-fifth of the world’s population, so can’t we get a fifth of the interests in the Antarctic and Arctic?” Yin asked. After all, “this is the common heritage of mankind, so everyone has a share,” he explained, citing a concept in international law applied to various parts of the global commons, including Antarctica, the moon, and the deep seafloor. In Yin’s imagination, China’s share would be lucrative. The Arctic and the Antarctic are “very rich in various resources” and their “sea lanes will also be important in the future.” To claim these interests, Yin warned, China would have to struggle hard: “if you do not defend it, do not fight for it, then you have no say… We cannot leave it all to others; the Chinese people have rights there.”

Yin Zhuo’s belief that China has “rights” to perhaps one-fifth of the Arctic could be dismissed as the remarks of one of China’s retired military hawks who are known to sometimes overstep their bounds. But Yin Zhuo — the son of a Long March veteran and high-ranking military political commissar — made these comments as a member of the Chinese People’s Political Consultative Conference which was meeting as part of the “Two Sessions.” His comments were part of an interview with state media, one that — even today — is published on one of the main websites of China’s State Council Information Office. Even if Yin overstepped his bounds, his views on the Arctic also find expression in Chinese texts.

This report explores China’s internal discourse on the Arctic as well as its diplomatic, military, scientific, and economic efforts across the region. It notes that China sometimes speaks with two voices on the Arctic: one aimed at foreign audiences that emphasizes science and cooperation and an internal, often cynical voice that emphasizes the Arctic as a frontier for resource exploitation and competition between the great powers, with science and diplomacy often serving supporting roles for Beijing’s military and economic ambitions.

With respect to China’s Arctic behavior, the report stresses China’s attempts at coercion of Arctic states and notes the limited dependence of most states on trade

with China relative to trade with Europe and the United States. It also traces China's diplomatic investments, reflected in dozens of high-level visits and efforts to join and create Arctic multilateral bodies. It explores China's military efforts, both its occasional dispatching of surface vessels into the Arctic as well as its testing of dual-use platforms and its pursuit of Arctic access. It looks closely at China's scientific activities, noting the ways that they enhance China's diplomatic influence, help China cultivate an Arctic identity, and can sometimes be useful securing resources and strategic access. Finally, the report surveys China's economic investments and its pursuit of the "Polar Silk Road."

The Arctic has often been at the center of great power politics, as Chinese political figures continue to stress. Many of the countries, islands, and coastlines so important in World War II and the Cold War are still geostrategically important today, with China now maneuvering for greater influence within them. During World War II, Germany considered occupying Iceland and in fact set up secret facilities on Greenland and Norway's Svalbard archipelago. The allies occupied all three, with Greenland and Iceland continuing to host NATO bases during the Cold War and Svalbard remaining free of military installations to reassure the Soviet Union. Meanwhile, the entire region was critical to American and Soviet satellites, the intercontinental ballistic missiles both superpowers would send over it in the event of a nuclear conflict, and the nuclear submarines they dispatched to travel under it.

Today, as new economic and strategic opportunities follow the warming of the Arctic, China is seeking its own Arctic influence. It has established science stations in Svalbard (along with other countries) as well as in Iceland; sought them in Canada and Greenland; built satellite facilities in Sweden; sent over 10 expeditions in the region; and significantly increased its economic and political influence across the region. The eight Arctic sovereign states — Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, and the United States — exercise great influence over the Arctic and its strategically valuable geography. China, in pursuit of status as a "polar great power," wishes to be among them.

CHINA'S DIPLOMATIC ACTIVITIES

China has become more active in Arctic institutions to legitimize its role as a regional power and build the foundation for future Chinese participation in Arctic affairs. China describes itself as a "near-Arctic" country — a formulation it has selected for itself that has no official standing within the region and its diplomatic institutions. To justify its regional role, it has consistently emphasized how changing conditions in the Arctic "have a direct impact on China's climate system" as well as "China's economic interests in agriculture, forestry, fisheries, and oceans." In recent years, therefore, Beijing has significantly increased its participation in regional Arctic dialogues and Track II events, sent several high-level CCP officials to the region, and integrated the Arctic with its most prominent foreign policy projects, like the Belt and Road Initiative.

Chinese sources often point to the country's long history of diplomatic engagement with Arctic states and institutions as a way of justifying China's regional presence. Both official and unofficial Chinese sources frequently highlight China's signing of the Spitsbergen Treaty in 1925 as the beginning of the country's Arctic endeavors. While the treaty allowed China to begin sending vessels for fishing and commercial activities to the region, it has also been referenced as one of the primary documents that authorizes China's current research and commercial activities in the Arctic. After 1925, Chinese activities in the Arctic were limited for several decades. As China Institute of International Studies (CIIS) assistant research fellow Liu Jin argues, "China didn't undertake any significant activities in the Arctic for more than 60 years after 1925."

High-level visits and the Arctic Council

Decades later, China eventually became more active in Arctic diplomacy. Liu Jin notes that "as the reform and opening up policy proceeded in an all-round way and the Arctic region's desecuritization process unfolded after the Cold War, China renewed its focus on the Arctic" and submitted an observer application to the Arctic Council in 2007. China's original application was denied in 2009 "largely because of internal debates among the eight member governments on how to ensure that new observers, including large entities such as China, Japan, and the European Union, could participate as observers without changing the nature of the organization itself."

Many Chinese scholars believed that non-participation in the forum was as good as being shut out from the region. Beijing wanted the ability to shape the mechanisms of Arctic governance too. Even Russia was seen as unwilling to assist China in expanding its Arctic profile — to say nothing of the region's other states. As Marc Lanteigne writes, "Despite strengthening Sino-Russian economic and diplomatic relations, the government of Vladimir Putin was nonetheless concerned that China's engagement with the Council would adversely affect Russian Arctic policy," a view also held by much of the Chinese Arctic policy community.

Despite this, China continued to pursue an active engagement strategy with Arctic Council member countries between 2010 and 2013. A key component of this strategy was high-level Chinese visits to the region. While U.S. officials have also used high-level trips to engage Arctic countries, Beijing's efforts have gone beyond what one might ordinarily expect in the usual ebb and flow of diplomatic activity, showing that the Arctic was a key strategic priority for China's leaders.

In 2010 alone, several Chinese officials visited Arctic Council member countries for high-level visits. For example, then-Vice President Xi Jinping visited Finland and Sweden, then-President Hu Jintao visited Canada, and former Politburo Standing Committee member He Guoqiang visited Iceland to sign three bilateral economic agreements. Driven by an interest in establishing economic ties with Greenland, Hu also visited Denmark in 2012.

China combined these visits with efforts to curry favor, sometimes quite successfully. When Liu Qi, a member of the Politburo Central Committee, traveled to Iceland for a high-level visit in 2010, Iceland's president at the time, Ólafur Ragnar Grimsson, is reported to have said that "Iceland's government and people sincerely appreciate China's precious support to Iceland in dealing with [the] financial crisis" Former Chinese Premier Wen Jiabao's visit to Iceland in 2012 is argued to have jump-started the two countries' FTA negotiations — which became China's first with a European country — and led to a memorandum of understanding on "joint maritime and Arctic scientific cooperation, including in the areas of climate change and marine monitoring." Observers at the time believed the China-Iceland FTA would enhance China's regional influence and boost its candidacy for observer status in the Arctic Council.

In May 2013, China's high-level visits paid off, and Beijing officially became an observer on the Arctic Council, along with India, Italy, Japan, Singapore, and South Korea. Following the news, Foreign Ministry spokesman Hong Lei stated: "China appreciates and welcomes the decision of the Arctic Council to accept China as an official observer… The aforementioned decisions of the Council will help China to strengthen exchanges and cooperation with relevant parties on Arctic affairs within the framework of the Council, contribute to the work of the Council, and promote peace, stability and sustainable development in the Arctic region." A People's Daily article following the news also outlined China's plans for Arctic cooperation, including strengthening understanding and research of the Arctic, protecting the Arctic environment, and carrying out sustainable development and utilization. Ocean University of China researchers Sun Kai and Wu Junhan emphasized that the change demonstrated that "China's participation in Arctic affairs entered a new stage, namely through 'identity diplomacy' of obtaining Arctic Council observer status and obtaining the basic right to participate in Arctic affairs."

China-led diplomatic efforts

Under President Xi, China has significantly built upon the efforts of the Hu administration to become a more active player in Arctic diplomacy. While high-level Chinese officials have made statements and released documents related to China's Arctic interests, they have also pursued more regional dialogues and positioned the Arctic as a critical part of the Belt and Road Initiative. Each is worth briefly considering below.

China has made greater efforts to enhance diplomatic relations with Arctic countries and reform the Arctic governance system to its liking since joining the Arctic Council as an observer. By taking part in regional dialogues, signing high-level agreements with Arctic countries, and criticizing current Arctic governance mechanisms, China is actively promoting policies that support and encourage greater Chinese participation in Arctic governance. As Guo Peiqing asserts, given changes in the Arctic situation,

"the opportunity for China to make a breakthrough in the creation of the Arctic international system is also taking shape."

In recent years, China has helped establish and participate in several regional dialogues on Arctic issues. China and Russia have both participated in the annual China-Russia Arctic Forum, co-sponsored by Ocean University of China and St. Petersburg State University since 2012. This dialogue has become an institutionalized exchange platform between the two countries' scholars and includes in-depth discussions and exchanges on cooperation in the Arctic region. China also established the China-Nordic Arctic Research Center (CNARC) in 2013 to promote an awareness and understanding of Arctic issues and coordinate research among member institutes throughout the region. Scholars like Marc Lanteigne believe these Track II initiatives have been used by China "as a means for further information collection and as a means to further deepen relations with sub- and non-governmental actors." These Track II initiatives allow Beijing to bypass some of the restrictions of the Arctic Council, and Chinese engagement with the Polar Code (a set of rules put adopted by the International Maritime Organization for ships operating in polar waters) and the Central Arctic Ocean fishing ban (a ban on fishing agreed to by nine states and the EU) sometimes occur through these fora. Together, these efforts allow China to enhance its identity as a regional partner. In addition, in 2016, China, Japan, and South Korea also began having annual high-level dialogues on Arctic issues "to promote exchanges on policies, practices, and experience regarding Arctic international cooperation, scientific research, and commercial cooperation," though little tangible progress has emerged from them.

China has also signed high-level agreements with several Arctic countries. In 2015, China's National Development and Reform Commission (NDRC) signed an memorandum of understanding on cooperation on the Northern Sea Route (NSR) with Russia's Ministry for Development of the Russian Far East. In April 2017, China and Finland signed a joint declaration promoting cooperation in fields such as maritime industry and environmental protection. In addition, China and Norway are in the process of negotiating a free trade agreement, even after a six-year diplomatic freeze that resulted from the Norwegian Nobel Committee awarding a Nobel Peace Prize to Liu Xiaobo.

"Shaping China's Engagement with the Arctic: Nationalist Narratives and Geopolitical Reality," Fuzuo Wu, Journal of Contemporary China, 15 September 2022 [17] https://www.tandfonline.com/doi/full/10.1080/10670564.2022.2124353

Abstract:

Nationalist narratives and geopolitical reality have played an opposite role in shaping China's engagement with the Arctic, with the former pushing it forward while the latter pushing it back. Specifically, Chinese nationalist narratives on strong feelings of love for and pride in the Chinese nation not only initiated but also facilitated

China's engagement with the Arctic. Moreover, the 'China Dream', an official narrative put forward by the Chinese President Xi Jinping, has driven the country to undertake proactive measures to engage with the Arctic, among others, including self-ascribing China as a 'Near-Arctic State' and self-designating the 'Polar Silk Road'. In stark contrast, however, the geopolitical reality featured by Arctic countries' policies to push back China's activities in this region has stymied its ambition to attain great power status in the Arctic.

Current & Relevant Information:

Introduction

China's engagement with the Arctic can be traced back to 1925 when China, under the Beiyang Government, joined the Spitsbergen Treaty at the invitation of France. However, this treaty had been completely overlooked by the Chinese until 1991, when Gao Dengyi, a Chinese atmospheric physicist, in a joint scientific exploration to the North Pole with scientists from Norway, the former Soviet Union and Iceland, was surprised to find the original text of this treaty in which China had been one of the signatories in 1925. Thus, it is no surprise that the Arctic had not been on the agenda of Chinese foreign policy until the mid-1990s, when China began to officially engage with this region. Such engagement has been taken to 'a new level' since 2005.

Against this backdrop, the literature on China's engagement with the Arctic and its motivations for doing so has been growing. One argument is that China has potential economic interests in the Arctic, such as shorter shipping routes and natural resources, especially energy. For instance, Li Zhenfu points out that maritime shipping routes have been an important motivation behind China's engagement with the Arctic. Similarly, Linda Jakobson argues that 'The prospect of the Arctic being navigable during summer months, leading to both shorter shipping routes and access to untapped energy resources, has impelled the Chinese Government to allocate more resources to Arctic research'. In the same vein, Gang Chen underscores that 'The melting of the ice in the Arctic Ocean attracts China because an ice-free Arctic environment will not only provide shorter shipping routes but also access to untapped energy and mineral resources'. By the same token, Marc Lentigines argues that China's engagement with the Arctic has been driven by this region's potentially lucrative raw materials, including fossil fuels, minerals and metals, as well as the shorter shipping route, especially the Northeast Passage via the northern Siberian coast once the ice melts as a result of global warming.

However, some scholars challenge the economic motivation argument. For instance, to counter this, Christopher Weidacher Hsiung contends that China's Arctic oil and gas interests are modest due mainly to the challenges and high costs of oil and gas production in this region and China's increased import options across the world. To challenge the shorter shipping-route argument, Linyan Huang et al. conducted a

survey among Chinese shipping companies and found that these companies seemed not to be interested in the Arctic shipping route because of four factors: 1) the high investment cost of the purchase of ice-strengthened ships, 2) market constraints like just-in-time and ship size that limit economies of scale, 3) the Arctic market is too small to establish a profitable route to enable a quick return on investment in ice-strengthened ships, and 4) physical risks and insurance costs.

Another point of view is that China has sought multiple goals in its engagement with the Arctic. For example, Malte Humpert and Andreas Raspotni note that China's participation in Arctic affairs has been motivated by its desire to serve both economic interests, such as resources and shorter shipping routes to Europe through the Arctic, as well as its political interests in enhancing its influence over global affairs through its participation in governing Arctic affairs. Likewise, David Curtis Wright highlights that 'China is interested in the Arctic primarily for its natural resources and navigation routes', in addition to the prospect of influencing Arctic affairs. Nong Hong finds that 'The interests of China range from participating in Arctic governance affairs and accessing potential resources to exploiting shipping opportunities and undertaking polar research'. Camilla Sørensen and Ekaterina Klimenko identify four drivers behind China's engagement with the Arctic, that is, to build a solid Chinese polar research capacity, to gain access to energy resources and minerals, to develop Arctic sea routes, and to secure China a say in the evolving Arctic governance regime. Similarly, P. Whitney Lackenbauer et al. explore China's multiple ambitions in the Arctic, such as scientific research, maritime shipping, energy resources as well as political influence.

In contrast, other scholars argue that China has strategic interests in the Arctic region. For instance, Wright focuses on the strategic dimensions of China's Arctic interests, with extensive translations from Chinese scholars writing from different perspectives and directions. Rob Huebert sounds the alarm that East Asian engagement, and especially that of China, with the Arctic has been motivated by a desire to challenge the sovereignty of the Arctic countries such as Canada. Xia Liping argues that the ice sheet melting in the Arctic could cause extreme weather events and natural disasters in China, which would negatively impact on China's ecological security and food security. In the same vein, Anne-Marie Brady argues that China has both traditional and nontraditional security interests in the polar regions, including economic, political, military and strategic interests.

Still others argue that China seeks status in the Arctic. For example, Mia M. Bennett argues that China, as 'an extra-regional state' of the Arctic, has been motivated not only by economics but also other factors such as concern for global prestige. Similarly, Brady underscores that China has been motivated by its desire to be a 'polar great power' in the international system.

Thus, the existing literature has largely focused on China's national interests when accounting for the rationale behind its engagement with the Arctic, be it economic

benefits, influence over Arctic governance, national security or higher status. However, the literature has ignored how China's nationalist narratives—a domestic factor and the geopolitical reality in the Arctic—an international factor have interplayed to shape China's engagement with the Arctic.

To answer this question, this article argues that China's nationalist narratives and the Arctic geopolitical reality have played an opposite role in shaping China's engagement with the Arctic, with the former pushing it forward while the latter pushing it back. More specifically, Chinese nationalist narratives on strong feelings of love for and pride in the Chinese nation not only initiated but also facilitated China's engagement with the Arctic. Moreover, the 'China Dream', an official narrative put forward by the Chinese President Xi Jinping, has driven the country to undertake proactive measures to engage with the Arctic, among others, including self-ascribing China as 'a Near-Arctic State' and self-designating the 'Polar Silk Road'. In stark contrast, however, the geopolitical reality in the Arctic is that China does not have any territorial sovereignty in this region, so the Arctic countries have adopted policies to push back China's activities, which has already stymied China's ambition to attain great power status in the Arctic.

To test this argument, the rest of this article proceeds as follows. It first explores how nationalist narratives had initiated China's engagement with the Arctic at the beginning of the 1990s. Next, it displays how nationalist narratives not only paved the way for, but also facilitated China's official engagement with the Arctic from the mid-1990s. Then, it details how the 'China Dream', an official narrative put forth by the Chinese President Xi Jinping, has stimulated the country to undertake proactive measures to engage with the Arctic since 2012. Furthermore, it examines how the Arctic countries have pushed back China's engagement with this region, followed by a brief conclusion.

Conclusion

China's nationalist narratives and the geopolitical reality in the Arctic have interplayed to shape China's engagement with the Arctic. On the one hand, Chinese nationalist narratives not only initiated but also facilitated China's engagement with the Arctic. Especially, China's proactive measures driven by the 'China dream', an official narrative put forth by the Chinese President Xi Jinping, have already revealed its revisionist intentions in this region, that is, not only to seek its rightful place in Arctic governance but also to try to shape such governance in its own way. On the other, however, due to the fact that China does not have any territorial sovereignty in the Arctic, the eight Arctic countries have already become wary of China's engagement with this region to varying degrees. This wariness, and even suspicion, has led the US and Russia, as well as the rest of the Arctic states, to take counter measures to push back China's attempts to participate in Arctic affairs, including refuting its self-ascribed 'a Near-Arctic State' status as well as frustrating its efforts

to obtain a footing in the Arctic. Thus, the Arctic geopolitical reality has largely stymied China's ambition to attain the status of an Arctic great power.

"The Nuances of Geopolitics in the Arctic," Andreas Østhagen, North American and Arctic Defence and Security Network Policy Brief, 7 January 2020 [18]
https://pdfs.semanticscholar.org/e651/bed811033c1c4193f0459d6e35623483d969.pdf

Abstract:

Few places have been the source of as much speculation, hype, and broad statements as the Arctic region at the start of the 21st century. Propelled to the agenda by flag-plantings and resource appraisals a decade ago, the Arctic continues to lure researchers and journalists to venture northwards to "the next great game".

Fortunately, with more attention comes more knowledge as well. Several scholars have now debunked the notion of resource wars in the North, due to the sheer size of the areas in question and the fact that the Arctic states already have ownership over most of these areas, through the Law of the Sea regime. Moreover, the foreign ministries of the Arctic states have highlighted the cooperative traits of the region: "in the Arctic, we work together" to solve problems.

Nevertheless, notions of Arctic conflict and great power politics over the North Pole keep emerging on the political and news agenda. Why is this so, if all is well up in the High North?

Current & Relevant Information:

China in the Arctic

Unlike the case in the Cold War, China has now emerged as an Arctic actor. With Beijing continuing to assert its influence on the world stage, the Arctic will be only one of many regions where China's presence and interaction are components of an expansion of power in both soft and hard terms. China has been noted as a "near-Arctic state," a situation which demands involvement from Beijing.

However, China is not accepted as an Arctic state and has largely been excluded from regional politics. Despite the inaccuracies of US Secretary of State Pompeo's warning in 2019 that Beijing's Arctic activity risks creating a "new South China Sea," such statements highlight how the USA sees the Arctic as yet another arena where the emerging systemic competition between the two countries is increasing.

"Securitise the volume: epistemic territorialisation and the geopolitics of China's Arctic research," Trym Eiterjord, Taylor & Francis Online, 2024 [19]
https://www.tandfonline.com/doi/full/10.1080/21622671.2023.2179535

Abstract:

This paper examines the geopolitics of producing volumetric space. It looks at how China, through its scientific presence in the Arctic, is acting as a territorializing actor

in the region, and how circumpolar states, in response, are moving to securitize these activities. First, the paper develops the concept of epistemic territorialization, examining how scientific practices, remote sensing technologies, and the environmental knowledge that they produce act to render atmospheric, oceanic and subterranean volumes legible, and thus volumetric. The paper then maps China's efforts to acquire volumetric knowledge about the Arctic, before moving to consider how these efforts are being perceived by Arctic states. It concludes with a synopsis of the changing 21st-century political geography of geoscience in the Arctic, demonstrating how regional perceptions of China's growing presence in the Arctic cast suspicion on the country's scientific endeavors, in turn demonstrating how geoscientific practices are territorializing in ways that work across both physical and discursive registers.

Current & Relevant Information:

INTRODUCTION

In May 2019, in a sports arena in the northern Finnish city of Rovaniemi, straddling the Arctic Circle, dignitaries from around the Arctic region gathered for a key Arctic Council meeting. Taking the stage in Rovaniemi that day, then-United States Secretary of State Mike Pompeo told his audience of foreign ministers and diplomats that the Arctic was 'entering a new age of strategic engagement'. The region, he explained, was becoming an 'arena of power and competition', and the Arctic Ocean, the region's 'centerpiece', was rapidly taking on new 'strategic significance'. He went on to emphasize that the United States was seeking to work toward an open and peaceful Arctic, a region in which 'respect and transparency are the price of admission'. Leading up to the meeting, however, a senior White House official had told Reuters that Pompeo was travelling to northern Finland 'amid growing … concern about China's interests' in the Arctic, and, more cryptically, that 'Chinese actions' in the region had 'really focused everyone's minds'. He elaborated:

Our Pentagon warned just last week that China could use its civilian research presence in the Arctic to strengthen its military presence, … including deployment of submarines to the region as a deterrent against nuclear attack. We need to examine these activities closely.

The former state secretary's accusations revealed something critical about the emerging geopolitics of not only the Arctic region, but the entire planet. Geopolitical tensions between China and the United States are intensifying. China, aspiring to the status of a global power, is expanding its presence into increasingly far-flung places, through diplomatic overtures, trade and investment, and large-scale infrastructure projects. Less attention has been paid, however, to China's ongoing efforts to acquire knowledge about remote and extreme spaces across the globe, such as the deep seabed, high seas, and the polar regions. Like the United States and the Soviet Union before it, China is mobilizing scientists and sensors in order to

study and monitor earthly volumes where new security and geoeconomic interests are emerging. In recent decades, these interests have reached the Arctic, where the country is fielding an increasingly sophisticated research program to study the effects of climate change, and, to the growing concern of states bordering the Arctic Ocean, survey for natural resources, develop new sea routes, and potentially accumulate environmental knowledge in support of a future military presence, from the Arctic's atmosphere, through its icy surface to the seafloor.

This paper examines China's scientific and technological attempts at 'territorializing aerial, maritime, and subterranean spaces' in the Arctic, as well as exploring how Chinese efforts to render the region volumetric is being perceived by the states that ring the Arctic. By attending to how science and technology are at once productive of, and subjected to, changing volumetric geopolitical imaginaries, this paper seeks to better our understanding of the changing political geography of the geosciences against the backdrop of great power competition in the 21st century. At the conceptual level, it does this by recasting the Earth sciences within the framework of 'volumetric geopolitics', focusing on the politics and practices of knowing, sensing, surveilling or otherwise producing volumetric space through scientific techniques, with the aim to develop a conceptual point of departure for further research into the co-constitutive relationship of geoscience and geopolitics.

In what follows, Section 2 sketches the entangled trajectories of geopolitical competition and the Earth sciences in the 20th century. It focuses on how the Arctic has come to be territorialized as a geostrategic and volumetric space by foregrounding the Earth-sensing practices and infrastructures that, beginning with the early Cold War period, were deployed both to open up and secure new volumetric vectors of threat, and state military planners and operators' growing need for environmental knowledge about submarine, atmospheric and glacial spaces in the Arctic. It seeks to demonstrate how geoscientific practices are territorializing in ways that work across both physical and discursive registers. Section 3 builds on this historical backdrop and introduces China as a scientific and geopolitical actor in the Arctic by providing an outline of its regional research program and emerging geopolitical and geoeconomic interests in the region. Section 4 contours the geopolitics of sensing the Arctic, examining recent attempts by China to develop its own ability to study, map and monitor the Arctic. Section 5 examines how the entrance of China as a scientific-cum-geopolitical actor in the region has been received. It maps circumpolar perceptions of the country's growing scientific presence, showing how this presence and the Arctic volume is being securitized.

Volumetric thinking is closely linked to the calculative practices and techniques that produce, stabilize as well as contest territoriality across and through earthly volumes. As Woon and Dodds argue, 'the relationship between the Earth sciences and vertical and volumetric understandings of national and international territory is crucial to understanding future iterations of subterranean geopolitics … '. The paper

seeks to show that a volumetric perspective such as the one laid out in the following sections helps direct our attention toward the various calculative practices that constitute Arctic geopolitics. By examining the ways in which Arctic volumetric spaces are taking on new strategic significance and becoming resecuritized as a result of intensifying great power competition, this paper aims to inform further research into the volumetric geopolitics of the Arctic.

CONCLUSIONS

This paper has sought to point to the importance of examining the epistemic underpinnings of volumetric geopolitics, and to foreground the practices and technologies that turn space legible. China is emerging as a new state actor wielding scientific research as a political technology to (re)render Arctic volumes legible, driven, in the eyes of many foreign observers, by an at times indistinguishable mixture of environmental, geo-economic and military–strategic interests. It has shown how the Arctic, when conceived of as a volumetric space, is being territorialized and securitized. It has described in some empirical detail China's scientific footprint in the Arctic, and, by analyzing these activities through the lens of epistemic territorialization, shed light on the changing geopolitics of Arctic science. The paper has provided a snapshot of the perceptions that Arctic states hold regarding China's scientific presence in the region as a way to underline how the changing geography of knowledge about the Arctic's earthly volumes amounts to a form of epistemic territorialization.

Following Russia's invasion of Ukraine in February 2022, however, circumpolar cooperation has collapsed, with the seven remaining Arctic states deciding to pause the work of the Arctic Council. Academic boycotts by European and North American universities and research institutions against their Russian peers have all but frozen research collaboration with the country. The war is also urging NATO further north, with Finland having gained membership to the defense alliance and Sweden seeking to do the same. At the same time, Russia's militarization of its Arctic territories continues. More work needs to be done to understand how renewed geopolitical competition is impacting the ways in which international science is conducted in the Arctic.

"Eurasian North: The Geopolitics of Russia and China in the Arctic," Alexander Dalziel, Macdonald Laurier Institute, June 2024 [20] https://macdonaldlaurier.ca/wp-content/uploads/2024/06/20240529_Russia-China-in-the-Arctic-Dalziel_PAPER-v7-FINAL.pdf

Summary:

What should be our expectations of the China-Russia relationship in the Arctic? Media tends to tout the "no-limits partnership" announced by President Xi Jinping and President Vladimir Putin in 2022 and the vision of an exuberant strategic relationship trending towards an anti-American alliance. Meanwhile, much of the

specialist community is occupied with talking down this narrative, pointing to the many inhibitors to the full flowering of the relationship. These studies voice well-founded perspectives, and analysts of geopolitics will have little problem accepting that China and Russia have different interests and goals – and that these diverge profoundly at their deepest roots and in their ultimate aims.

But this should not hide that the overall China-Russia co-operation is trending upwards and that this co-operation will likely include an expanding Arctic component over the next decade. Many of their interests in the Arctic currently align and reinforce one another. The Arctic is core to Russia's rebalancing of its foreign politics and trade towards China and Asia, both for the maritime route it provides and the natural resources it contains, and core to Russian identity and influence. For China, Russia's Arctic is about diversification and global prominence, a place where it can find more of the minerals and energy it needs for a resilient economy, develop transit routes to lower dependence on other maritime choke points and where it can express the politics of a "polar power" when its options to do so in the North American and Nordic Arctics have dried up. Their co-operation mutually reinforces both countries in their rivalry with the US; and as long as both see the US, Europe, and Canada as adversaries, the Arctic will be a place where Russia and China will negotiate an expanding relationship.

The thresholds to reverse the upward trajectory are high. To upset a mutual dynamic in the Arctic, China will need to vigorously and forthrightly contest Russia's narrative of national sovereignty over the Northern Sea Route (NSR) and special status as a circumpolar state. Similarly, to reject a growing Chinese commercial, investment, and (bounded) state presence in the region, Moscow will have to begin to perceive China as such a threat in the Arctic that it supersedes the current perception of the United States and Europe as fundamental threats to Russia's most central foreign goals in Ukraine and Belarus. These appear extremely unlikely in the next ten years.

The current situation provides ample room for China and Russia to avoid the worst outcomes and pursue very many pragmatic ones. Applying a geopolitical lens resolves some of the questions that in other circumstances might plague the China-Russia relationship. As a geopolitical bloc, shaped by their elites' perceptions of national interest and benefitting from political and geographical similarities and complementary comparative advantages, China and Russia do not need a maximally aligned relationship or one characterized by deep mutual trust. Deficits in these areas will prevent a full alignment, but it will not prevent advancing their highest-priority strategic needs. In pragmatic terms, they are likely to find many points where their respective Arctic politics converge.

This paper will contend that those convergences are found in implications of competition and conflict with Canada, the US, and their allies. The intersections are strongest in the Northern Sea Route, where calculations in a still ice-strewn waterway show a greater readiness to accept risk. While China has less need to buy

Russian natural resources than Russia has reasons to sell them, the attractions of a massive proximate Eurasian resource base resilient to geopolitical and security shocks will be conducive to Russian opening of development offers and Chinese follow-through on a greater number of investments in Russia's north.

In short, China-Russia collaboration will be a growing component of Arctic geopolitics and will almost certainly make their relationship stronger over the next decade. For policy-makers in other northern circumpolar countries and beyond, this will demand attention and calibrated response. The Arctic countries of North America and Europe, their Indigenous peoples, and allies like Germany will need to strive for integrated postures to ensure their Arctics are at a collective advantage in this competition. As a consequence, the imperative of transatlantic security in the Arctic will not just be a matter of defense but of extending a robust North America-European economic cooperation.

Current & Relevant Information:

Introduction

The burgeoning China-Russia relationship will have a profound effect on Arctic geopolitics. The deterioration of Russia's relationships with the advanced democracies and economies of the transatlantic and Indo-Pacific regions since 2014, much exacerbated by its full invasion of Ukraine in 2022, makes the Arctic even more important to Russia's readjustment of its trade and politics, and gives China new openings in the Far North to articulate its polar politics. Building on efforts over the last two decades, Russia's aggression in Ukraine is forcing it to concentrate more intensely on the economic potential and security of its Arctic reaches, and it is granting China more strategic latitude in its development.

This occurs when the main protagonists of the defining strategic rivalries of our times will all have a pronounced Arctic dimension. The competition of the US, China, and Russia brings an increasing dose of hard-interest geopolitics to the Arctic, one that includes the high-stakes geoeconomics of supply-chain security in a radical energy transition, and a revolution in the digitization of business and society (Park and Tiberghien 2023; Ciuriak 2023). The Arctic sees the US, China, Russia, and the European Union (EU) all active in integrating the Arctic into geopoliticized conceptions of supply and value chains, the "nearshoring" and "friendshoring" of Western strategic parlance. Actors in strategic economic sectors, such as computer and telecommunications hardware and non-carbon energy technologies, will find the Arctic a potential secure source for critical minerals and rare earth elements (REEs) needed for their economic security, a factor that may tip the odds in favor of these investments in what is otherwise an expensive environment for resource extraction.

This is the first of a three-part series that examines three core political geographies of the Arctic and how they are interacting politically and economically over the next ten years. These three geographies are a China-Russia Eurasian Arctic,

characterized by a complex transactional relationship; a Nordic Arctic, integrated into NATO and the EU defense and economic politics; and a North American Arctic at the center of intersecting geopolitical contests (Huebert 2019). Across the papers, not only the politics and security of these geographies will be explored, but also the economic effects of the digital and decarbonization revolutions in them. At the end, each paper will provide some high-level recommendations from a Canadian and transatlantic perspective about Arctic geopolitics and potential lines of response.

The aim is to get readers thinking more geopolitically about Arctic issues, a lens particularly important in Canada, where its Arctic has often been seen as a uniquely North American space, exempted from the external world by ice, snow, and a politics of exceptionalism. This is even more urgent with the publication of the 2024 defense policy update in Canada, which puts the Arctic at the center of Canadian grand strategy and places it clearly in the context of transatlantic relations as a “northern flank” of the NATO alliance (Department of National Defence 2024). The Arctic, disrupted by a rapidly warming climate and the attendant rises in ice melt and sea level, will be a complex operating environment (Pincus 2024). However, the region is becoming increasingly more accessible – more so than any other time in recent human history – and the Arctic will fit into coming geopolitical developments more dynamically and diversely than the last three decades. For non-Arctic countries like Germany, who have relied primarily on scientific and research endeavors for their Arctic policies, the implications of a dynamic Russia-China relationship in the Arctic will call for creativity in how it pursues its own influence and interests in the region (German Federal Government 2019).

I make two underlying assumptions in my assessment. First, geography matters. The rise of a territorially massive geopolitical bloc stretching across the continuous territory of the world’s largest and fourth-largest countries is a formidable consideration, creating unparalleled strategic depth across the spectrum of their national resources. The effectiveness of this bloc does not depend on the likelihood of a linear, unified trajectory and shared policy foundation between the People’s Republic of China (PRC) and the Russian Federation, but will be a process of active, continual negotiation. Border disputes appear to have been resolved, and sharing a long border now appears an asset to the relationship, not a detriment.

Second, transactional, non-alliance relationships can matter greatly in geopolitics. Elements of the media frequently exaggerate the nature of China-Russia ties and the extent to which this will lead to conflict in the Arctic (for a recent example, see Euractiv 2024 and MSN 2024). I agree with the many assessments that China and Russia’s announcement of a “no-limits” partnership in early 2022 has rhetorical purposes and that strategic misalignments (see Section 3.3.2) in their relationship are unlikely to be soon if ever overcome (for trenchant examples, see Lajeunesse, Dean, and Lackenbauer 2022; and Lackenbauer and Lanteigne 2024). These could one day lead to a break down.

Nonetheless, their mutual interests do not need to fully and completely align for them to become a potent force in the Arctic (Mastro 2024, 3–4, 34– 36). Transactional relationships such as they currently share have considerable strategic potential (Leoni and Tzinieris 2024). This factor is regularly underestimated in the advanced democracies of Europe and North America since their world view is shaped by a heritage of institutional arrangements centered on collectivized security and integrative economics. From this perspective, Western analysts and leaders often look for things the Chinese and Russian themselves are not trying to achieve, most importantly in this case, a mutual defense alliance. Not “shacking up” in such an alliance, as American political scientist Oriana Mastro puts it (Mastro 2024, 3), does not mean that the two cannot undertake very significant ventures in an emerging and converging relationship.

This means that Eurasia’s Arctic will have consequences for transatlantic security and prosperity. For countries like Canada and Germany, the Eurasian Arctic warrants more attention amid these geopolitical currents. The transatlantic community has seven circumpolar members of NATO, as well as transborder Indigenous communities like the Inuit and Sami, and abundant natural resources. Because the North Atlantic and Baltic Sea regions, in both of which Canada and Germany have security interests – Canada as a leader of the NATO mission in Latvia, Germany as a littoral state – are interconnected to the Arctic in myriad ways, Ottawa and Berlin will need to integrate Arctic considerations into their approaches to allied relations and international action.

Figure 1: The Arctic: a Northern-Eurasian perspective

Source: MLI

Overarching geopolitics

The Arctic sits amid an overarching geopolitical and geoeconomic contest, shaped by the intensifying US-China strategic rivalry, Russia's tensions with the transatlantic community, and forward momentum in the China-Russia relationship. The paper will now provide a short assessment of the outlooks for these dynamics.

The US-China rivalry is almost certain to be a fixture for the next decade. This contest is not simply about military strength and territorial sovereignty, such as in the South China Sea and Taiwan, or about the PRC's aggressive use of cyber tools or media interference, or the US's commitment to freedom of navigation. Alongside these, it is a geoeconomic competition over access to the raw materials and manufacturing fundamental to high-tech competitiveness in the digital and decarbonized energy sectors (Park and Tiberghien 2023; Ciuriak 2023). Economic matters top the political agendas in both countries. The single-mindedness of the Chinese Communist Party (CCP) to position China as a world-leader in these fields and the at times protectionist character of US industrial policies embed this competition at the heart of their interactions and behaviors (Leoni and Tzinieris 2024).

Meanwhile, Russia's antagonism towards North America and Europe is extremely unlikely to dissipate over this period. The implications of its invasion of Ukraine will continue to unfold. It is unclear if any likely resolution of the war in Ukraine – which at the time of writing looks far distant – would mend the deep breakdown in the relations of the transatlantic community and Russia in the next 10 years, with key previously sustaining factors severed, most notably in the unyoking of the European energy market from Russian suppliers. Without political change in Russia, this division will almost certainly persist. Strategically, Russian aggression has consolidated Europe's commitment to transatlantic solutions involving North America and national investments for its defense. Adding to this dismal prognosis, most scenarios for a post-Putin Russia do not see a revival of the country's short-lived 1990s liberal democratic trajectory but instead likely portend the maintenance of a Putinist status quo, a turn to chauvinistic nationalism, or a downward trend in internal instability (Michel 2024; Galeotti 2023; Newlin and Lohsen 2022). Finally, European efforts to reduce its overreliance on trade with China and establish a resilient decarbonized and high-technology economy will intensify competition with China (Pohl, Buchanan Ponczek, and Wigell 2023).

These factors combine to impart a strong boost to China-Russia strategic alignment. The relationship is likely to be durable and mutually enhancing over the next ten years (Brands 2022; Lin 2023; Gabuev 2021 and 2023a; Mastro 2024). A mutual sense of threat from the US is the overriding motive. Moreover, the relationship is grounded in a secure border and the complementarity of Russia's natural resources and China's investment and manufacturing assets. Although China has a stronger overall position in the relationship, Beijing has displayed sensitivity to Russia in

regions where Moscow has objectives dating from Soviet times, for instance in Central Asia (Umarov and Gabuev 2023). Traditional popular issues inhibiting the relationship have abated, for instance Russian fears of a demographic surge of Chinese migrants overwhelming its Far Eastern region (Mastro 2024, 21; Gabuev 2023b). As Zeno Leoni and Sarah Tzinieris observe, “the constellation of shared interests” of China and Russia are the engine of a Eurasian bloc in contemporary geopolitics (Leoni and Tzinieris 2024, 41).

However, Russia finds itself with lessened strategic autonomy vis-à-vis China and is relying on it heavily to alleviate pressure on its supply chains from sanctions (Snegovaya et al. 2024). For example, more than a quarter of its total trade is now with China, whereas only around 3 percent of China’s is with Russia (Fong and Maizland 2024). China is now a major source of technology for Russian strategic sectors, such as the military and telecommunications (Snegovaya et al. 2024). Historically, Russia was reluctant to give China undue presence in Arctic politics, a position which the Arctic Council, collaboration between the Arctic Five (A5) nations (Canada, Norway, Russia, Denmark/ Greenland, and the US), and Barents Euro-Arctic Council buttressed. Russia’s aggression against Ukraine has left this framework in tatters, with the foundations of A5 cooperation and Arctic Council much weakened, and Russia’s departure from the Barents Sea Council. Russia no longer has some of the political tools it once had to balance China’s interests in the Arctic, regardless of the near certainty that it continues to harbor concerns about China’s ultimate goals (Lackenbauer and Lanteigne 2024; Staun and Sørensen 2023).

A range of behaviors illustrates their strengthened relations. They are conducting military exercises together in the East China Sea and the Baltic Sea. Russia is offering China access to some of the remaining sectors of its military industrial base, such as jet engines, where it still enjoys a technological lead (Gabuev 2021; Umarov and Gabuev 2023). Meanwhile, China is lending Russia rhetorical, economic, and increasing material support in its war in Ukraine (Snegovaya et al. 2024; Sher 2024; Christensen 2023). Russia’s openness to China is unprecedented in their relations in post-Soviet history (Gabuev 2023b), and the relationship of Xi Jinping’s China and Vladimir Putin’s Russia is at a height last seen in the early 1950s between Mao Zedong’s fledgling PRC and Joseph Stalin’s Soviet Union (Radchenko 2024). Most significantly for the argument of this paper, the situation both countries now find themselves in is likely to see the Arctic contribute significantly to shaping and defining their relationship (Snegovaya et al. 2024, 34; Staun and Sørensen 2023, 30; Mastro, 34; Gabuev 2023a).

Russia, China, and the Eurasian Arctic

The Arctic, therefore, will become a more prominent component of the authoritarian world’s most powerful partnership. China is in a leading position to advance the Russian Arctic’s development, and as Chinese interests there grow, its geopolitical significance to Beijing will rise accordingly. Russia sees an urgent need to integrate

the Arctic into its pivot to the Asia-Pacific, and China wants to shore up its security in Eurasia and raise its profile in the Arctic. In this section, we will look at where the Arctic fits in Russian and Chinese strategies and factors, convergent and divergent, that will shape the relationship over the next decade.

China's Arctic strategy

The Communist Party of China is keen to establish the PRC as a recognized player in the Arctic. National aspirations and geopolitics are giving it more prominence in the PRC's strategic thinking. Unlike Russia, China does not give precedence in its foreign or economic policies to the Arctic Ocean and its coasts. It is but one of many domains in which it plays – and in which it believes it has a right and obligation to play. Nonetheless, as political scientist Anne-Marie Brady of New Zealand has argued, the CCP believes that China's stature in the Arctic tracks its ability to claim to qualify as a truly global power (Brady 2017, 262). It fits at least four geopolitical objectives of China and its ruling Communist Party. These are: asserting its place in global governance; diversifying maritime transportation options; expanding the natural resource base it can draw upon; and managing geopolitical competition with the US.

Influence in the Arctic is a mark of global relevance and influence for China. PRC strategic thinkers integrate the Arctic into a larger polar concept including Antarctica (Brady 2017, 1–8). China's Arctic Policy (CAP), released in 2018, delineates the official position. Consistent with Communist Party rhetoric under General Secretary Xi Jinping, it calls for "respect, cooperation, win-win result[s] and sustainability" in Arctic affairs. Most strikingly, as reflected in its self-labelling as a "near Arctic state" and "important stakeholder" in the CAP, Beijing advocates for the internationalization of Arctic affairs due to the region's climatological consequences, scientific significance, and economic opportunities for the international community. As a "responsible major country," the PRC advocates for its involvement in international and regional governance bodies, as well as for multifaceted multilateral, regional, and bilateral relationships to build frameworks and projects for development (State Council of China 2017; Economy 2022,183). China sees its participation in polar affairs as a symbol of legitimacy and international status (Doshi 2021, 3–5).

More tangibly, Chinese interests in access to international shipping lanes and the diversification of its sourcing of energy and minerals are key motives. China sees itself as having a "major role" in developing these economic assets as an investor and innovator with the Arctic's "coastal states" (CAP, Section II). The Polar Silk Road (PSR) component of the Belt and Road Initiative (BRI), announced in 2017, embeds China's willingness to invest in infrastructure along these routes and test their commercial visibility (CAP, Section IV.2.1), although carrying the label of Polar Silk Road is not in and of itself necessary for Chinese investments along the NSR (Lamazhapov, Stensdal and Heggelund 2023).

Arctic maritime routes (the NSR, Northwest Passage, and Central Arctic Ocean) top the list of China's Arctic economic goals. The focus will be on the NSR as sea lanes in the Central Arctic Ocean remain ice locked. (Brady 2017, 63–64; Economy 2022, 176). Studies of China's official and media communications reinforce the primacy of commercial shipping and especially the NSR in its thinking about economic opportunity in the Arctic (Lajeunesse, Dean, and Lackenbauer 2022). According to the CAP, they have the potential to become "important transport routes for international trade" and to have a potentially "huge impact on the . . . economic development of China" (CAP, Sections II, IV.3.1). According to American political scientist Elizabeth Economy, Beijing sees the NSR and trans-polar routes as the most favorable (Economy 2022, 176); and as Danish political scientist Camilla Sørensen points out, China seems to have an optimistic take on the viability of the NSR (Sørensen 2024).

As part of China's attempts to enhance its geoeconomics competitiveness and resilience, the Arctic also furnishes the PRC with an option to diversify its sources of energy and raw materials. Acknowledgement of natural resource exploitation has been growing in Chinese policy and investment behavior over the last decade (Brady 2017, 87–100; Economy 2022, 179–181). Consistent with CCP foreign policy language, the CAP and PSR communicates a vision of Chinese partnership in exploiting these natural resources for "win-win" outcomes for all parties. To that end, it encourages Chinese businesses to collaborate there. It notes that China enjoys rights under international law to exploit resources in the Arctic high seas. Energy resources there, it contends, could have a "huge impact" on its energy strategy (CAP, Sections II, III, IV.3.2).

The Arctic is also likely to become a theatre that China uses to balance the US. Overtly, the CAP contains little language that can be read as implying China would use armed force to back up its ambitions, and it currently lacks the access and assets needed to do so. That is consistent with how the Communist Party of China speaks about the world officially. But there is good reason to conclude that China sees the region as part of its power projection. Chinese strategists, who do not necessarily reflect top-level PRC decision-making, have spoken about the matter in more depth and range. The concept of "Military-Civil Fusion" (MCF) portrays a richer vision of the association of power and the Arctic region, which can extend across the range from deniable hybrid actions to the ability of the People's Liberation Army-Navy (PLA-N) to posture on North America's northern flank (Pezard et al. 2022, 5, 14, 16, 25–26; Puranen and Kopra 2023, 247–248). As other analysts have observed, economic opportunities and expressing sovereign rights are the main objectives of Chinese policy, but with these is an associated and burgeoning capability to back up these interests with military assets (Brady 2017, 70–71, 102–103). And pure science is seen both as a way to justify China's presence in regional decision-making and to establish the basic navigational and climatic knowledge to project military power through exercise and presence (Economy 2022, 180–181).

Beijing sees presence as is its own argument for a right to influence. By increasing its commercial traffic, scientific activities, and resource prospecting and exploitation, China strengthens its case to have a say in the Arctic (Urbina 2023). It has stated emphatically that the Arctic Ocean is not the preserve of its littoral states, but part of a “shared future for mankind” (CAP, Section III). Within that framework, it is seeking to create facts on the sea (it clearly recognizes the sovereignty of Arctic countries) to maximize whatever rights are available to it in international law. That implies the tectonic force of China in global political and economic systems will be brought to bear in contributing to norm setting in the Arctic through regularizing economic and scientific activities and having a regular presence at the relevant institutional bodies, such as the Arctic Council. (Brady 2017, 67–68, 94, 100, 102–103). It stands as a good example of how trade, investment, and scientific research fit into a model of asymmetric competition with the US and the Arctic countries, by developing a presence less extensive but no less global than the US’s (Doshi 2021, 294–295).

China’s rise as a player in the Arctic has been rapid (Brady 2017, 138). Now, however, because of its strategic rivalry with the US, it finds its prospects to build relationships and invest in the Nordic and North American Arctics curtailed. That has thrown the Polar Silk Road initiative into doubt and forced China to adapt a “wait and see approach” to reactivating polar relations with the other Arctic countries (Sørensen 2024, 154, 159). For now, China wants to be seen as an Arctic player, and Russia is the only available option it has for a multidimensional presence.

Conclusion and recommendations

The Arctic was a geopolitical space in the Cold War. It is again a geopolitical space in US-China strategic rivalry, and more directly, in the transatlantic community’s handling of Russia. The most active shapers of today’s geopolitics all have a stake in the Arctic. It will affect their security considerations. It will affect how they design their most important supply chains. The Arctic’s natural resources offer a path to more resilient supply chains for digital hardware, energy security, and decarbonized energy options – the primary geo-economic issues of our era; all parties will want to take advantage of that. Finally, the Arctic and its waterways will be the scene of a wider range of human activity due to climate change.

A Eurasian region that integrates the Arctic will be a source of Chinese and Russian power and be a competitor to European and North American plans to develop and secure their own territories and supply chains. Considering the relationship as a function of a geopolitical dynamic, one that emerges from their geography and natural resources in Eurasia, and not solely as a function of the unexplained preferences of their leaders lens points to the strong mutual advantages and strategic dependencies that are likely to evolve between China and Russia in the next decade (Gabuev 2023a; Pezard et al. 2022; Lo 2022) become more obvious. These will make both more resilient geopolitical players. As one observer puts it, enhanced motives for developing the China-Russia minerals complex would be

“highly problematic” for the US and its allies if they want a stronger position in these supply chains (Johnston 2022). Russia and China’s shared perception that the US is the prime threat to each regime’s political continuity overrides most strategic issues in their relationship. Over the next decade, these factors are likely to persist and give momentum to their collaboration. It will contribute to defining their international image and status, their security, and their prosperity.

Transatlanticism can provide a counterweight to the rise of an authoritarian Eurasian Arctic. Through the leadership of the Arctic 7 (A7) countries – Canada, the US, Iceland, Norway, Sweden, Finland, and Denmark/ Greenland, and their northern Indigenous communities – North America and Europe have numerous advantages in their historical and active ties and their democratic development models and increasing awareness of the importance of indigenous reconciliation to national economic competitiveness. With some adjustments, these can form a bloc as formidable as the Eurasian.

Two high-level considerations will steadily improve the geopolitical and geoeconomic fundamentals. The first recommendation is to intensify the transatlantic dialogue to map the intersections in the security of the North American and Nordic Arctics. Smaller powers play an important role, and Canada and the Nordic countries have an opportunity to communicate to Washington an Arctic burden-sharing approach – and to signal to the PRC and Russian Federation that a robust, resilient security posture is in place to preserve peace and stability in the Arctic region. They also increasingly need to look to where they can draw in other smaller players, such as Germany, France, Japan, South Korea, and the UK to amplify their politics in the Arctic.

Second, North America and the European Union will be stronger if they strive to harmonize supply-chain policies and pool investment for resilient extractive sectors, in order to combine their economic power. For both, friend shored supply chains will depend on building the critical minerals and REE sector, from source to consumer. The Arctic territories and peoples of the US, Canada, and the Nordic countries are almost certain to play a crucial role in meeting these economic security objectives. The broader the resource base, the greater the competitiveness that can be achieved.

The era of Arctic exceptionalism is over. The advances in Chinese and Russian relations herald a Eurasian Arctic dynamic that will be a facet of growing relevance to the capitals and institutions of the transatlantic community over the next decade. It is incumbent on that community to take account of the geopolitics of a changing Arctic. The ability to compete in the geopolitics of the Arctic will be a prerequisite of success on the world stage for Canada and its allies. Transatlanticism remains an essential element in that success.

3. Economic Activities:

"China-U.S. cooperation in the Arctic Ocean: Prospects for a new Arctic exceptionalism?," Min Pan and Henry P. Huntington, Marine Policy, October 2024
[21] https://www.sciencedirect.com/science/article/pii/S0308597X24002926

Abstract:

There are currently many sources of tension between the People's Republic of China and the United States of America. In the Arctic, the relationship includes competition for influence as well as cooperation in governance, such as the Central Arctic Ocean (CAO) Fisheries Agreement. The prospect of further cooperation creates an opportunity for a new "Arctic exceptionalism," in which China and the U.S. could move towards better mutual understanding. Doing so would benefit the Arctic and could help improve bilateral relations more generally. For example, China and the U.S. can work with other countries to improve research and governance of the Arctic Ocean. Regional governance agreements for commercial shipping and deep-sea mining in high-seas areas of the Arctic could build on the principles of the CAO Fisheries Agreement while building trust and shared commitment to a healthy Arctic Ocean, perhaps setting the stage for more ambitious collaborative efforts.

Current & Relevant Information:

Introduction

Relations between the People's Republic of China and the United States of America are strained. Tensions arise in many areas, from geopolitical interests in the South China Sea and regarding Taiwan, to trade policies and practices, to persistent misunderstandings of the other's intentions. The same can be said, for similar reasons, about relations between the Soviet Union, and later the Russian Federation, and the United States. Nonetheless, until recent years, Russia and the U.S. managed to cooperate in Arctic affairs, in matters large and small. The concept of "Arctic exceptionalism" was used generally to describe the ability of Western countries to cooperate with Russia in the Arctic despite major disagreements elsewhere.

In this paper, building on Ren, we explore the prospects for a new Arctic exceptionalism, centered on China and the U.S. as the two major global powers of the present time. At present, signals from both countries are mixed. While the consequences for the Arctic are high, the stakes for both countries are relatively low, in that major economic or military confrontation is unlikely to arise. The Arctic therefore has the potential to be a place for China and the U.S. to explore a cooperative relationship, possibly leading to better mutual understanding and decreased tensions. We do not suggest that the Arctic can resolve the deep and real disputes that divide China and the U.S., nor that China and the U.S. dominate Arctic affairs, simply that the Arctic can provide a venue for a different approach between

the two countries. At the very least, Arctic cooperation can benefit the Arctic. More optimistically, Arctic cooperation can provide an alternative to belligerent rhetoric and confrontation.

We begin by reviewing the concept of Arctic exceptionalism and China's history of engagement with Arctic affairs. We then discuss China-U.S. relations regarding Arctic policy, acknowledging the role of multilateral arrangements, but recognizing that in the first half of the 21st century, China and the U.S. are the world's main foci of global geopolitical power. Next, we explore the potential for further collaboration in the Arctic, noting areas where China and the U.S. may also compete for influence. We conclude with thoughts about further research and action in this area.

China and the Arctic

Recent emphasis on Russia's relations with the other Arctic states, however, may obscure the potential for new forms of Arctic exceptionalism. While Soviet-American relations dominated the international scene in the latter half of the 20th century, China has emerged as a global power in the 21st century. Superpower competition between China and the U.S. dominates the headlines, including many Arctic stories, but the history of China's engagement in the Arctic suggests more nuance.

China's engagement in Arctic affairs can be traced back at least to the trade involving China and the Arctic Indigenous peoples of Siberia and Alaska that began in the second half of the 18th century and the creation of a new Silk Road that led to Moscow. The main trading center on the China-Russia Silk Road was Kyakhta, on the two countries' border at that time. Russian merchants collected furs from Siberian and other Indigenous peoples in the Arctic and exchanged them for tea brought by Chinese merchants. This system was highly profitable to the trading companies involved, leading to the near extinction of some species and the end of the triangular trade by the early 20th century. Note, however, that China's Arctic engagement in this period consisted almost exclusively in trade conducted outside or on the margins of the Arctic.

Although China signed the Spitsbergen Treaty (now the Svalbard Treaty) in 1925 concerning the status of that Arctic Archipelago, China had little involvement in the Arctic during much of the remainder of the 20th century. By the 1980s, China's economy was growing quickly and Chinese scholars began engaging in Arctic research on a small scale. One unexpected consequence was the 1991 re-discovery by Gao Dengyi (高登义), a Chinese atmospheric physicist, that China was a signatory to the Svalbard Treaty, a fact that had been forgotten for over 60 years. Together with China's research activities, its status as a Svalbard Treaty member helped spur renewed interest in economic and political engagement in Arctic affairs. Over the next two decades, China worked with several Arctic countries to develop its capacity and knowledge about the Arctic. By 2013, China's involvement was

substantial enough for the Arctic Council to accept China as an observer state, recognition that is of great significance to China.

Following this diplomatic achievement, China and the U.S. cooperated on some small-scale scientific activities in the Arctic. For example, American scientists have joined research cruises aboard the *Xue Long* (Snow Dragon) icebreaker for research in the Arctic. In 2016, China participated the first Arctic Science Ministerial, hosted by the U.S. interagency Arctic Executive Steering Committee in Washington, D.C. Furthermore, both countries actively participate in the work of the International Maritime Organization (IMO), which developed the Polar Code for commercial vessels operating in Arctic and Antarctic waters.

After China became an observer of the Arctic Council, scholars from China and Arctic countries have co-hosted a series of academic conferences, which became important platforms for China-Arctic countries' “second track diplomacy” (interactions other than through formal diplomatic channels). The Sino-US Arctic Social Science Conference is an important institutionalized platform for the two countries’ scholars to discuss Arctic issues and cooperation, and has been held six times as of the end of 2023. The topics discussed at each conference have been broad, addressing sustainable resource development, climate change, safe and reliable Arctic shipping, ongoing scientific cooperation, Arctic environmental protection, Arctic Indigenous affairs, governance, and international norms.

More formal diplomatic cooperation led to the CAO Fisheries Agreement, mentioned earlier. The agreement is the most important achievement in Arctic cooperation in the recent past. China, the U.S., and other countries worked together in the negotiating process. One contributing factor to the CAO Fisheries Agreement was an exercise in second-track diplomacy to help address some of the suspicion that often affects China-U.S. relations. In January 2015, Tongji University in Shanghai hosted a roundtable discussion about the prospects for an Arctic fisheries agreement. Participants came from several countries, with China and the U.S. accounting for most of the total. The roundtable provided an opportunity to explore the issues, without the formalities of an official diplomatic event.

Although cooperation between China and the U.S. in Arctic scientific exploration and Arctic governance has been relatively smooth in the past decade, there has been no important Arctic economic cooperation comparable to the Sino-Russia Yamal Liquified Natural Gas (LNG) Project. The “energy dominance” policy during the 2017–2021 Trump Administration in the U.S. led Chinese energy companies to plan a $43 billion investment in Alaska natural gas, but it was later stranded due to tensions in Sino-US relations. Elsewhere in the Arctic, the U.S. has exerted influence on Greenland and Iceland in part to counter perceived increases in Chinese interest and influence. The U.S. and Danish governments have also successfully blocked several proposed Chinese investments in Greenland. U.S. opposition to Chinese economic engagement in the Arctic has hardened in recent

years, perhaps reflecting tensions in other aspects of their relationship such as trade policy, the COVID-19 response, and geopolitical matters beyond the Arctic.

At the same time, China appears to have invested substantially in demonstrating a commitment to Arctic well-being, for example through increasingly stringent environmental policies designed in part to reduce the effects of pollution and climate change. Whether other countries recognize or accept China's actions as a "costly signal" of benign intent is another question.

Conclusions

Competition and confrontation in the Arctic offer China and the U.S. another venue for geopolitical posturing, an extension of their relationship in other places and on other matters. In practical terms, however, the Arctic at present offers little reward for the investment required to further assert one's presence and one's power. U.S. sovereignty over Alaska and its waters is unquestioned. China's icebreakers traverse the Arctic Ocean for research. Economic activity and potential are largely limited to land-based resources and locations, such as the Yamal Peninsula or Alaska's North Slope. Shipping activities are concentrated along the Northeast Passage and Northern Sea Route, mainly for transporting raw materials from the Russian Arctic to distant markets. Large-scale development of fisheries, deep-sea minerals, or new shipping lanes is unlikely in the near future. In other words, the stakes are low and likely to remain so for some time to come.

Cooperation, on the other hand, can provide tangible benefits in the short term as well as better long-term prospects for amicable, or at least non-confrontational, relations in the Arctic the long term. The CAO Fisheries Agreement created a Joint Program of Scientific Research and Monitoring, building on existing modes of scientific cooperation that involve China, the U.S., and other countries. All shipping that connects the Pacific and the Arctic Oceans must go through the Bering Strait, where good governance and modern charting can help avoid accidents that would benefit no one. In a place with little capacity for search and rescue, mutual aid agreements involving more than Arctic coastal states make good sense. Small-scale economic interactions, such as tourism and exports from existing fisheries, offer mutual benefits as well as a pathway to second-track diplomacy through greater contact between Chinese and U.S. citizens.

What happens in the Arctic cannot be entirely separated from what happens elsewhere. Arctic exceptionalism does not require completely different rules of engagement, just a recognition that there are opportunities to try different ways of interacting. The risks of pursuing a cooperative relationship in the Arctic appear to be relatively low. The benefits include short-term gains that more than repay any investment, as well as the potential for larger long-term benefits through decreased tension and greater understanding, based on actual cooperative experience. If such an outcome is an appealing alternative to current policy and practice, further

research in this area might consider identifying plausible pathways to achieve some version of a new Arctic exceptionalism, or to assess the likelihood that various actors—governments, companies, non-governmental organizations, and others—might be willing to undertake the actions needed to shift from confrontation to cooperation in Arctic affairs.

"Understanding China's Economic Presence in the Arctic," Yue Wang, Inkstick, 17 August 2022 [22] https://inkstickmedia.com/understanding-chinas-economic-presence-in-the-arctic/

Overview:

In January 2018, China published its first-ever Arctic policy, emphasizing the role China sees for itself in Arctic affairs. China has extended its interests in the region beyond the country's previous focus on scientific research to also engaging in economic activities along with the "Polar Silk Road" (PSR). As a new expansion of China's grand and crucial foreign policy strategy, the "Belt and Road Initiative" (BRI), the PSR aims to develop "a blue economic passage linking China and Europe via the Arctic Ocean".

China calls itself a "Near-Arctic State" that is still a non-Arctic state, and "an important stakeholder" in the region. Among its economic activities, China's engagement strategy primarily revolves around investments, including foreign direct investment (FDI) and foreign portfolio investment (FPI). China's investment attempts have mainly focused on the resource extraction industry, such as Yamal LNG, the Kvanefjeld mining project, and critical infrastructure projects, such as the Kemijärvi airport in Lapland, the Arkhangelsk deepwater seaport, and the submarine cable system in Greenland.

China's growing involvement in the Arctic and several of its particularly controversial investment attempts — such as the Greenland airport project and the land purchase proposal in Iceland — lead to the impression that China's investments in the Arctic are increasing and alarming. Many reporters, politicians, and analysts have expressed mounting concern regarding China's true intentions in the Arctic behind its investment attempts. In 2019, then US Secretary of State Mike Pompeo aggressively questioned China's real intentions in the Arctic and warned of the potential debt trap and other dangers, such as corruption, economic destruction, and militarization, caused by China's investments in the Arctic. Nordic states also highlighted the importance of conducting foreign investment screenings, driven by the security concerns in critical infrastructure and 5G systems, which seems like a not-so-subtle reference to China's activities, considering that these are the primary foci of Chinese investments.

To better understand China's economic presence in the Arctic, we need to determine if China's investments in the Arctic are really growing and explore how the Arctic investment destinations can respond better.

Current & Relevant Information:

ARE INVESTMENTS REALLY GROWING?

Unlike the "standard" narrative that Chinese investment is rapidly growing, "I always ask people to list the Chinese investments in the Arctic…. unfortunately that list is quite short," said Mads Qvist Frederiksen, the Executive Director of the Arctic Economic Council, in January 2022. A group of Nordic researchers also pointed out that China's investment and overall economic activities in the Arctic are limited, with most investments occurring in the Russian Arctic region.

In many reports and analyses, the references to China's investment are usually without a clear distinction between FDI and FPI, although fundamental differences exist. For example, FDI is generally considered stable with long-term development strategies, and the investors typically hold a high level of control of the firm. However, FPI is more short-term interest-driven, and the investors have little interest in being involved in the firm operation and management. In this regard, it is primarily Chinese FDI that worries China-watchers since FDI implies a high level of control by Chinese shareholders in which the state could easily insert its strategic interests.

CNA, a think tank dedicated to national security research, systematically reviewed China's FDI in the Arctic. Its reports conclude that China's FDI does not seem to be increasing overall and indicate a gap between peoples' *idea* of China's investments in the Arctic and the *observed* investments on the ground. What could be the reasons for this gap?

First of all, Chinese investors tend to announce high-value deals and the corresponding contribution to the Chinese Government's strategy, which is newsworthy and catching for the local Arctic and international media, especially in the context of the intensified China-US great power competition and the controversy of the massive BRI. However, many announced investments are usually significantly watered down or never occur in reality, but the grandiose announcements are rarely followed to completion or revealed to the public. Failed large-scale investments are far from something Chinese investors are proud of, and they may be afraid of possible consequences of media storms both domestically and abroad. One such example is that of the rejected investment by Huang Nubo, a Chinese property tycoon who tried to purchase 300-square kilometers of Icelandic land (0.3% of Icelandic national land mass) in 2011. Because of this failed investment, Huang and his Zhongkun Group got caught in a media controversy, especially in China and Iceland. Huang believed the failure of this investment was due to political reasons, and that the high level of media exposure may negatively affect his future investments. In addition, for the media, it is obvious that diluted Chinese investments are less newsworthy and eye-catching.

THE INTERWEAVE AND DISTINCTION BETWEEN PUBLIC AND PRIVATE INVESTMENTS

The tight connections between Chinese investors (both state-owned and private) and the Chinese Government are the primary causes of China's threat perception and the main reasons for the failed deals. Chinese investments are usually portrayed as advancing Chinese political and security interests in the Arctic regardless of the investment source. Unlike state-owned enterprises, private enterprises, in principle, are not supposed to serve the state's political goals. However, the line between state and private enterprises in China has become increasingly blurred, and the government's influence has been expanding in all Chinese enterprises, especially since the OFDI regulation was tightened in 2017. In the new regulation, *Guiding Opinions on Further Directing and Regulating the Direction of Overseas Investment*, many so-called "irrational" investments are restricted or prohibited, but the Belt and Road Initiative-related projects are marked priority. What's more, the new regulation stresses national interests and national security in OFDI, and the involvement of the Ministry of Foreign Affairs, an unusual FDI regulator, further indicates the Chinese Government's increasing political and strategic interests in its enterprises' investments overseas, including the Arctic.

Although OFDI by both Chinese state and private enterprises are influenced by the Chinese Government to varying degrees, at the end of the day, enterprises are commercial first and foremost. No doubt, these enterprises — at least some of them — have realized that their connections with the Government may hinder their OFDI and profit-seeking, so why do these enterprises still highlight how their investment may contribute to the national agenda in documentation? A plausible reason could be their need to gain state support for their investments, including financial support from the state banks and regulatory support. Therefore, Chinese enterprises, especially private ones, seem to face a crucial dilemma. Addressing the state's strategic concerns is a premise to obtain state support for their overseas investment, but such claimed commitments make the promised economic goals of their investments suspicious in the eye of the recipient countries and then lead to barriers for their profit-seeking economic activities.

It remains unknown to what extent Chinese private enterprises sincerely care about serving the national strategies in their overseas economic activities, but it seems at least some of them merely regard strategically framing their investments as a technical approach to attract financial and regulatory support from the state.

There is no doubt that attracting responsible foreign investment can boost economic and societal development in the Arctic, but making smart decisions on investment proposals by the Chinese private enterprises is a great challenge for the Arctic states and local communities because of the non-transparent investment information and the confusion of the relationship between the state and Chinese private enterprises in China.

FDI screening with up-to-date proper measures is necessary to make these smarter decisions. Most of the Arctic states have an FDI screening framework in place already, but they need a more tailored approach to differentiate FDI from Chinese private investors for the sake of both investors and the locals. For example, open and transparent information exchanges between the screening agencies and the investors may help both sides understand each other's concerns better and more effectively. The relationship between the private investor and the state should be assessed case by case, carefully considering the changes in Chinese domestic politics and OFDI regulations.

"An analysis on Sino-Russian cooperation in the Arctic in the BRI era," Olga Alexeeva and Frederic Lassere, Advances in Polar Sciences, 2018 [23]
https://www.researchgate.net/profile/Frederic_Lasserre/publication/330354805_An_analysis_on_Sino-Russian_cooperation_in_the_Arctic_in_the_BRI_era/links/5c3bbe2f92851c22a37358e9/An-analysis-on-Sino-Russian-cooperation-in-the-Arctic-in-the-BRI-era.pdf

Abstract:

Over the past decade Sino-Russian cooperation in the Arctic has emerged as one of the major topics of the Russia-China negotiations on how to expand their comprehensive strategic partnership and to bring it to a new level. China considers the Arctic region important for its economic interests and desires to be included in the development of the region and its economic potential. For Russia, the Arctic is a future strategic resource base that would replace the old depleting fields and assure Russia's status as a major worldwide energy supplier. Despite many joint statements on deepening of the Sino-Russian cooperation in the development of the Arctic energy resources, the concrete results of these ambitious plans are few. Some joint projects were dropped, as China and Russia could not agree on the conditions of the deal, others are progressing very slowly and have an uncertain future. In 2017, China has expanded its "Belt and Road Initiative" (BRI) to the Arctic thus elevating the Sino-Russian cooperation in the Arctic to a higher level. How did the relationship between Russia and China evolve in the Arctic and how do Russia and China view and respond to the new Arctic dimension of the BRI? What factors limit the strategic rapprochement between China and Russia in the Arctic?

Current & Relevant Information:

Introduction

In January 2018, China released its first Arctic White Paper that outlines the major points of Beijing's Arctic strategy. The document has attracted a lot of media attention both in the West and in Asia, and renewed concerns raised by some academic and many media commentators about a Chinese takeover of the Arctic. Although the Paper does not provide any detailed policy guidelines, mostly confirming the well-known Chinese interest for the economic development of various

Arctic resources, one theme stands out in this otherwise very generic presentation—China's ambition to tie the Arctic to its Belt and Road Initiative (BRI) by using a "Polar Silk Road" to connect China to Europe through the Arctic Ocean (State Council Information Office of the PRC, 2018).

The idea to extend the BRI to the Arctic reflects not only China's recent shift to a more confident approach in pursuing its economic and geopolitical interests worldwide, but also Beijing's desire to further strengthen and promote the Sino-Russian economic ties in the polar region. Currently, Russia is the only BRI partner among the eight Arctic states and the largest recipient of Chinese Arctic investment. Since 2014, Moscow has been increasingly open to the idea of China's greater involvement in extraction and mining activities in the Russian Arctic and has officially committed to further cooperate with China on Arctic BRI projects of various nature and different scale.

At the same time, Beijing has showed a growing enthusiasm for the use of the Northern Sea Route (NSR) (Huang et al., 2015). The Chinese are not only actively testing the feasibility of the Arctic shipping routes by sending commercial ships along the NSR but are also working on the design and construction of ice-classed vessels, capable of operating in Arctic waters. These Chinese activities found energetic official support in Moscow which confirmed on several occasion its intention to develop the cooperation with China on the NSR, conveniently re-christened as "Ice Silk road" or "Silk Road on Ice" to fit the BRI's official vocabulary.

The emerging Sino-Russian cooperation in the Arctic and its economic and geopolitical potential has recently became the focus of some scholarly attention. The majority of Western scholars tends to analyze the Sino-Russian cooperation in the Arctic from Moscow's perspective by focusing on the Russian aims of pursuing the partnership towards China in the Arctic (Lanteigne, 2015; Røseth, 2014). In 2017, the Stockholm International Peace Research Institute (SIPRI) published a detailed and rather balanced report on the recent developments of the Sino-Russian economic cooperation in the Arctic. After examining the evolving interests and activities of China and Russia in the Arctic, the report concluded that the existing divergence in goals and approaches greatly undermines the future of Sino-Russian cooperation in the Arctic (Sørensen and Klimenko, 2017), apparently confirming views already exposed by Lee and Lukin (2016).

Russian experts, while noting that Russia and China have differing priorities in relation to the Arctic, emphasize the economic benefits of the joint development of the Arctic resources and shipping routes for both countries (Konyshev and Sergunin, 2012). Although acknowledging the potential strategic and military risks of the growing Chinese presence in the Arctic (Khramtchikhin, 2015) and the existing differences in Russian and Chinese interpretation of Arctic law and governance (Morozov, 2016; Zagorsky, 2016), most Russian scholars see the future of the Sino-

Russian cooperation in the Arctic in a more optimistic light then their Western colleagues.

Chinese scholars also highlight the positive drivers for Sino-Russian cooperation in the Arctic (Wang et al., 2015; Song and Wang, 2014) and study the possibilities of connecting the Russian Arctic to the BRI project (Li et al., 2016; Lu, 2016). In the majority of the publications, China is described as “a natural partner” for Russia as it has the ability to supply technologies and investments to back up Moscow’s endeavor to develop Arctic resources and shipping routes.

To identify the scope and scale of the Sino-Russian cooperation in the Arctic, we have assembled data from different Russian and Chinese sources in an attempt to quantify the Chinese participation in the development of the Russian Arctic since 2012. Governmental agencies in both Russia and China give very few details about the terms and conditions of the signed deals and their official statistics are often at odds with each other, so most of the data is sourced from periodicals and academic publications. The comprehensive analysis of these sources revealed that Sino-Russian projects in the Arctic—their expense, scope, and anticipated value—are frequently misrepresented for many different motives, including geopolitical concerns. How do Russia and China view and respond to the new Arctic dimension of the BRI? What are the potential implications for further Chinese-Russian cooperation on the NSR in the Arctic? Is the ongoing Russia-China cooperation in the Arctic the result of short-term pragmatic choices for both parties, or is it the beginning of a nascent strategic partnership? Are there discrepancies in the views of each partner regarding their cooperation in the Arctic? This paper examines whether this recent boost in Sino-Russian relations in the Arctic is a pragmatic choice for both parties or whether it is borne out of political and strategic partnership.

This paper aims to contribute to the literature on the development of the China-Russia partnership in the Arctic by providing a comprehensive and up-to-date analysis of recent Sino-Russian cooperation in the Arctic, through a review of commercial negotiations and economic activities related to the exploration of the energy and shipping potential of the Russian Arctic, as well as an assessment of the current state of the cooperation between the two countries. A thorough review of the Russian scientific literature was notably used to document the cooperation between Russia and China in the Arctic and how it is perceived in Russian sources. This was analyzed in the frame of the constructivist approach of international relations and political geography, theories that emphasize that States may cooperate in the political and economic field, to the difference of the realist approach (Lasserre et al., 2016). The paper will first explore Russian objectives in the Arctic; then the first steps of the Russia-China cooperation in the region; and will then analyze the achievements of this cooperation.

Conclusion

The Ukrainian/Crimean crisis and Western sanctions, which took away Russian access to key financial markets and technological know-how, have brought Russia closer to China and seem to elevate their strategic and economic partnership to a higher level. The Russian “pivot to the East” has resulted in the signing of a number of important agreements related to the joint economic development of the various resources of the Russian Arctic. This rapprochement has been recently confirmed by Beijing’s decision to expand the spatial scope of the BRI to the Russian Arctic and thus further promote Sino-Russian economic cooperation in the region. Thus, this paper has tackled the issue of how Russia and China can cooperate in the Arctic so as to foster their respective interests.

However, despite the apparent deepening of the bilateral relations, concrete results of these ambitious plans are limited. Some joint projects were dropped, as China and Russia could not agree on the conditions of the deal, others are progressing very slowly and have an uncertain future. Mutual strategic mistrust and different understanding of the mechanics and final goals of the Sino-Russian partnership in Beijing and Moscow seem to undermine the scale and the rhythms of their cooperation in the Russian Arctic. Yamal LNG is the only successful Sino-Russian joint venture in the Arctic where both sides seem to find their own interests, although Moscow and Beijing interpret differently their respective contribution to the implementation of the project.

The connection of the Arctic to the BRI might provide a new momentum for Sino-Russian cooperation in the Arctic by stimulating Chinese companies to participate more actively in the energy and infrastructure projects on the Russian territory. The realization of projects under the BRI umbrella will improve their opportunities for financial support from the Silk Road Fund and other official Chinese institutions thus reducing their exposure to various risks associated with many Russian projects in the Arctic. Greater involvement with the BRI might also motivate Russia to formulate a more coherent and pragmatic vision of its partnership with China and thus increase the scale of Chinese involvement in the development of the Russian Arctic. For now, the Sino-Russian relationship remains a marriage of convenience where both sides try to balance their vulnerabilities at the expense of the other. Closer cooperation within the BRI might change the situation and lead to a renegotiation of terms of Sino-Russian cooperation in the Arctic, even though the prospects for a mutually beneficial relationship remains tributary to a number of international and domestic factors.

“China’s economic influence in the Arctic region: The Nordic and Russian cases,” Oscar Almén and Christopher Weidacher Hsiung, FOI.se, June 2022 [24]
https://www.foi.se/rest-api/report/FOI-R--5326--SE

Abstract:

As Chinese investment and engagement in the Arctic have increased, so have the suspicions and concerns, of not only the Nordic states, but also Russia, for the security implications of larger Chinese engagement in the region. Using its economic influence for strategic purposes has become a main component in Chinese foreign policy strategy, or in what is often referred to as China's economic statecraft. This study examines Chinese economic statecraft towards the Nordic countries and Russia with a focus on the Arctic region. The study finds that Chinese actors have had many intentions and expended much effort in attempting to invest in the Arctic, but few of these plans have actually resulted in completed deals. For the Nordic countries, while trade with China and Chinese FDI (foreign direct investment) in the region keep increasing, general economic exposure to China is still limited. As for Russia, economic vulnerability is relatively higher. China is Russia's largest trading partner but Russia is far less important for China. The Russian economy is gradually becoming more linked to the Chinese market and economy, especially in the domain of energy. These trends have all been exacerbated due to the ongoing war in Ukraine. Chinese economic statecraft is not always directed against a country's economy as a whole but may target specific companies or sectors. As shown in this study, China has, with varying degrees of success, used punitive economic methods against some Nordic governments and other actors in order to attain political goals. In terms of specific investments, the study identifies a number of cases that could potentially have negative national security consequences. Policy measures, such as legislation on investment screening and excluding Chinese companies from participating in the development of 5G, has reduced the risks of Chinese economic activities in the Nordic countries.

Current & Relevant Information:

Executive summary

As Chinese investment and engagement in the Arctic have increased, so have the suspicions and concerns that not only the Nordic states, but also Russia, have over the security implications of China's increasing engagement in the region. Using its economic influence for strategic purposes has become a main component in Chinese foreign policy strategy, or in what is often referred to as China's economic statecraft. This study examines Chinese economic statecraft towards six Arctic countries: the Nordic countries and Russia. The study poses the following questions: What is the extent, with a specific focus on the Arctic, of China's economic influence in the Nordic region and Russia? How does China's economic statecraft differ between the Nordic region and Russia? What are the security implications of China's economic engagement in the region?

In the study, economic influence was analyzed through two dimensions. The first dimension is general economic exposure, which was measured as China's share of a country's export and import and Chinese foreign direct investment, FDI, as well as sector-specific trade and investments, in order to examine Chinese economic

influence in certain sectors. The second dimension examines specific Chinese investments.

The main findings of the study are as follows:

- While China has been an active investor in several of the Nordic countries and Russia, few of those investments are located within the Arctic Circle. Chinese actors have had many intentions and expended much effort in attempting to invest, but few of these plans have actually resulted in completed deals.

- Major obstacles to further development relate not only to the harsh physical environment that the Arctic represents, but also the response and willingness of Arctic states to welcome a greater Chinese economic presence.

- For the Nordic region, while both trade with China and Chinese FDI in the region keep increasing, the general economic exposure to China is still limited. China's share of trade with the Nordic countries remains between 5–9 per cent. The exception is Norway, where China was the main source of Norwegian imports in 2021, with a 13.1 per cent share. China is also a major source of foreign investment, especially in Finland, where Chinese investment has reached 5.7 per cent of GDP (2020) and is now the third largest source of FDI.

- In terms of specific investments, the study identifies a number of cases that could potentially have negative national security consequences. Chinese acquisitions of small and medium Nordic high-tech companies could serve to strengthen China's military modernization. In general, realized Chinese infrastructure investment in the Nordic region is limited. In many cases, this is due to government intervention, for security reasons.

- As for Russia, economic vulnerability can be said to be relatively higher. China is Russia's largest trading partner, but Russia is far less important for China. The Russian economy is gradually becoming more linked to the Chinese market and economy, especially in the domain of energy. In addition, China is also strengthening its position vis-à-vis Russia in other domains of the relationship. These trends have all been exacerbated due to the ongoing war in Ukraine. Russia's need of Chinese capital, financing and markets in the face of continued Western sanctions and more broadly persistent West-Russian tensions will leave Russia with few options than to move even closer to China.

- Chinese economic statecraft is not always directed against a country's economy as a whole but may target specific companies or sectors. Therefore, general economic exposure cannot fully capture all economic exposure to Chinese economic statecraft. As shown in this study, China, with varying degrees of success, has used punitive economic methods against some Nordic governments and other actors in order to attain its political goals. This differs from the case of Russia, where China has used positive incentives rather than punitive economic statecraft measures.

- Centralization of power during the reign of Xi Jinping has improved the conditions for China's capacity to exercise economic statecraft. However, the Communist Party's increasing control over business has made many target countries more suspicious towards Chinese investors. Increased suspicion has resulted in countermeasures, such as legislation on investment screening and exclusion of Chinese companies from participating in the development of 5G, which has made some Chinese economic activities in the Nordic countries more difficult. This has reduced China's chances for successful economic statecraft.

- In the Nordic countries, an elevated awareness among governments and society in general of the risks regarding Chinese economic influence, together with recent and coming legislation restricting foreign investments, are factors that should work to reduce the risk that China will invest in sensitive sectors in the future.

- Much of what happens to China's presence in the Arctic is decided by China's domestic political development. For it to increase its presence there in terms of investments and scientific cooperation, it must be accepted by the Arctic countries. In order for a more accommodating view to replace the present skepticism about its intentions, China would have to improve its image.

Introduction

This study is concerned with the security implications of Chinese economic influence in the Arctic, specifically in the Nordic region and Russia. China's scientific, economic and political engagement and presence in the Arctic has increased substantially in recent years. The extent to which China can exercise economic statecraft against the Nordic countries and Russia is relevant for our understanding of the security implications of China's investments in the region. A key component of China's Arctic strategy is to strengthen bilateral cooperation with Nordic nations and Russia, in particular through scientific collaboration and closer economic, trade and investment engagement. China has already established a presence in the Nordic countries. It has been operating a research station on Svalbard (Norway) since 2003, and together with Iceland set up a joint scientific research station, in 2018. Investments in Greenland (Denmark) focus on natural resource extraction, especially in mining. China's bilateral Arctic engagement with Russia stands out as perhaps the most far-reaching, where Chinese participation and investment in energy, shipping and infrastructure have led to the emergence of a potential Sino-Russian Arctic partnership. As Chinese investment and engagement in the Arctic have increased, so have the suspicions and concerns, of not only the Nordic states, but also Russia, for the security implications of larger Chinese engagement in the region. While the Nordic states and Russia still welcome a Chinese presence on a general basis, some states, such as Denmark and Sweden, have recently, following an European Union (EU) directive in 2019 that established a framework for foreign direct investment, called for and enacted stricter policies and mechanisms for investment screening. On top of this, there is the increased strategic global rivalry

between the US and China, which is having an impact on the dynamic between Arctic and non-Arctic states, China foremost among the latter.

Conclusions and discussion

This study set out to examine China's economic influence in the Nordic region and Russia and its security implications. The following three questions were posed: What is the extent, with a specific focus on the Arctic, of China's economic influence in the Nordic region and Russia? How does China's economic statecraft differ between the Nordic region and Russia? What are the security implications of China's economic engagement in the region?

In the study, economic influence is analyzed through two dimensions. The first dimension is general economic exposure, which is measured as China's share of a country's export, import and Chinese FDI, as well as sector-specific trade and investments, in order to examine Chinese economic influence in certain sectors. The second dimension examines specific Chinese investments. For the Nordic region, while trade with China and Chinese FDI in the region keep increasing, general economic exposure to China is still limited. China's share of trade with the Nordic countries remains between 5-9 per cent. The exception is Norway, where China became the main source of Norwegian imports in 2020, and in 2021 reached a record 13.1 per cent share. China is also a major source of foreign investment, especially in Finland, where Chinese investment has reached 5.7 per cent of GDP and is now the number three source of FDI there.

As for Russia, economic vulnerability can be said to be relatively higher. China is Russia's largest trading partner, but Russia is far less important for China. The Russian economy is gradually becoming more linked to the Chinese market and economy, especially in the domain of energy, which is by far the most important source of revenue for the Russian state. In addition, China is also strengthening its position vis-à-vis Russia in other domains of the relationship.

Due to the ongoing war in Ukraine, Russia could be more forcefully moving into China's economic orbit; Russia's need of Chinese capital, financing and markets in the face of continued Western sanctions and more broadly persistent West Russian tensions will leave Russia with few options than to move even closer to China. A certain degree of dependency on China for much needed strategic leverage against the West could be the trade-off Russia is willing to pay, for now.

Chinese economic statecraft is not always directed against a country's economy as a whole but may target specific companies or sectors. Therefore, general economic exposure cannot fully capture all economic exposure to Chinese economic statecraft. As shown in this study, China has, with varied degrees of success, used punitive economic methods against some Nordic governments and other actors in order to attain political goals. This differs from the case of Russia where China has used positive incentives rather than punitive economic statecraft measures.

“Asian Countries and Arctic Shipping: Policies, Interests and Footprints on Governance,” Arild Moe and Olav Schram Stokke, Arctic Review on Law and Politics, 2019 [25] https://fni.brage.unit.no/fni-xmlui/bitstream/handle/11250/2587005/Moe+Stokke+19+Asian+countries+and+Arctic+shipping.pdf?sequence=2

Abstract:

Most studies of Asian state involvement in Arctic affairs assume that shorter sea-lanes to Europe are a major driver of interest, so this article begins by examining the prominence of shipping concerns in Arctic policy statements made by major Asian states. Using a bottom-up approach, we consider the advantages of Arctic sea routes over the Suez and Panama alternatives in light of the political, bureaucratic and economic conditions surrounding shipping and shipbuilding in China, Japan and the Republic of Korea. Especially Japanese and Korean policy documents indicate soberness rather than optimism concerning Arctic sea routes, noting the remaining limitations and the need for in-depth feasibility studies. That policymakers show greater caution than analysts, links in with our second finding: in Japan and Korea, maritime-sector bureaucracies responsible for industries with Arctic experience have been closely involved in policy development, more so than in China. Thirdly, we find a clear tendency towards rising industry-level caution and restraint in all three countries, reflecting financial difficulties in several major companies as well as growing sensitivity to the economic and political risks associated with the Arctic routes. Finally, our examination of bilateral and multilateral Chinese, Japanese and Korean diplomatic activity concerning Arctic shipping exhibits a lower profile than indicated by earlier studies.

Current & Relevant Information:

Introduction

How important are shipping and shipbuilding for the Arctic aspirations of leading Asian states? How much of their engagement is purely commercial, and how much is a reflection of political goals? We take a bottom-up approach, examining Arctic sea routes from the perspectives of Asian governmental agencies, companies and industry associations, rather than a top–down approach centered on Arctic change. A recent study ranked China highest among the leading maritime nations of the world, with Japan and the Republic of Korea as third and fourth. Given the global orientation of their maritime industries, these nations will always assess Arctic options across a wide array of alternatives.

Since 2013, China, Japan and Korea have enjoyed formal observer status in the major international forum specifically targeting northern affairs, the Arctic Council. All three countries emphasize the mutual benefits of cooperation with the Arctic states, but differ significantly in the salience they ascribe to various maritime business opportunities, in the centrality of their shipping ministries in Arctic policy

development, and in the preparedness of their maritime industries to commit themselves financially to northern sea routes.

Three alternative transit routes are in focus in debates over trans-Arctic shipping: The Northeast Passage between the Atlantic and the Pacific north of Russia, the Northwest Passage through Canada's Arctic Archipelago, and the Central Route across the North Pole. For the near future, it is only the Northeast Passage—specifically, the Northern Sea Route—that has attracted serious interest from Asian shipping actors. The Northwest Passage has depth limitations and remains severely constrained by permanent or moving ice. Regular use of the Central Route remains a futuristic scenario, requiring far greater ice retreat than seen so far. The "Northeast Passage" is the loose term historically applied to the entire Arctic passage between Europe and Asia: the Northern Sea Route is the clearly demarcated sea area between the Kara Sea in the west to the Bering Strait in the east, extending 200 nautical miles from the coast, developed and regulated by Soviet and Russian authorities since the 1930s. In addition to its potential as a transit corridor, this route is of interest to the shipping industry because of transport-intensive resource extraction projects in the Russian North. Shipping out from the Arctic or into it is termed "destination shipping," as distinct from transit shipping between the Pacific and the Atlantic.

Because most studies of Asian-state interest in the Arctic assume that shorter sea-lanes to Europe are a major driver, we begin by examining the prominence of shipping concerns in the Arctic policy statements of major Asian states. Contrary to the impression left by many analysts, these policy documents—those by Japan and Korea in particular—reveal soberness rather than optimism with respect to Arctic sea routes, highlighting the remaining limitations and the need for more in-depth feasibility studies. This greater caution from policymakers than from analysts can be explained by our second finding: in Korea and Japan, maritime-sector bureaucracies responsible for industries with Arctic experience have been closely involved in policy development, more so than in China. Our third finding concerns the tendency to greater industry-level caution and restraint in all three countries, reflecting financial difficulties in several major companies as well as growing sensitivity to the economic and political risks associated with Arctic routes. On this basis, our final substantive section examines bilateral and multilateral Chinese, Japanese and Korean diplomatic activity in Arctic shipping, finding much lower profiles than indicated by earlier studies of Asian states in Arctic affairs.

China

Due to China's steadily rising geopolitical status, its foreign-policy moves are followed with keenness by the outside world. China acquired its first (and as yet only) icebreaking research vessel in 1993; in 2004, the Polar Research Institute of China set up an Arctic research base in Svalbard. This Norwegian archipelago is the most accessible among high-latitude research sites—for climatic reasons, and

because the Spitsbergen Treaty ensures “equal liberty of access and entry for any reason or object whatever” for nationals of all signatories. China is an original signatory to the Spitsbergen Treaty; as with the other Asian states examined here, its Arctic engagements have expanded during the past decade from an early focus on scientific research, orchestrated by polar research agencies more heavily engaged in Antarctic than in Arctic research.

China’s Arctic policy document is thorough and specific, reflecting a longstanding process of developing regional priorities and defining four principles: respect, cooperation, win–win results, and sustainability. “Respect” and “cooperation” refer primarily to international institutions, notably the UN Law of the Sea Convention (LOSC) and the network of “global, regional, multilateral and bilateral channels” for facilitating joint endeavors. Reciprocity is highlighted - that coastal states must respect the rights that non-Arctic states enjoy in the region—a point reiterated in official Chinese statements on the Arctic over the past decade. A speech by the Assistant Minister of Foreign Affairs, Hu Zhengyue, on a visit to Svalbard in 2009 was the first prominent articulation of how China perceives its role in this region. Only slightly modified, this speech titled “China’s view on Arctic cooperation” was published on the Ministry website, indicating that it represented official policy. Like the 2018 policy document, the 2009 speech reflects China’s longstanding foreign-policy line of reassuring the outside world that it accepts the international order. Three points emphasized by the Assistant Minister in 2009 are no less prominent in the 2018 official policy document: the requirements under LOSC for cooperation with non-Arctic states on matters such as shipping, the gains derivable from joint scientific research and peaceful pursuit of win–win opportunities, and the transregional effects of Arctic environmental change.

How one’s own country is affected by Arctic environmental change is a prominent and recurrent feature of all Asian-state policy statements on the Arctic, explicitly justifying a greater scientific presence in the region and implicitly suggesting some level of stakeholder saliency.

The third principle put forward in Chinese policy, “win–win results,” has become increasingly prominent in official statements and was in 2015 already cited among the central norms underlying China’s practice in the Arctic. The term, with variants like “common interest” or “mutual benefit,” occurs throughout China’s Arctic policy document. Also, the final principle, “sustainability,” present in early statements, has become more elaborate and pronounced with time—in the policy document, references to sustainability or environmental or ecological protection are outnumbered only by those to “China.”

China’s Arctic policy devotes considerable attention to maritime transport, and makes some bold claims: “The utilization of sea routes and exploration and development of the resources in the Arctic may have a huge impact on the energy strategy and economic development of China … [and] China’s capital, technology,

market, knowledge and experience is expected to play a major role in expanding the network of shipping routes it the Arctic and facilitating the economic and social progress of the coastal States along the routes." Shipping is mentioned first among the economic sectors of interest to China—but references to the economy appear only after China's policies and positions concerning scientific research and protection of the Arctic environment are elaborated. Highlights include the "constructive role" China has played in "the formulation of Arctic-related international rules," presumably including the negotiation of the legally binding Polar Code under the International Maritime Organization, as well as the "Polar Silk Road" branch of the broader infrastructure project known as the Belt and Road Initiative.

The four principles articulated in China's Arctic policy sit well with Bennett's argument that China is systematically building two mutually reinforcing narratives to gain legitimacy as a regional stakeholder: one territorial, highlighting its "near-Arctic" location and involvement in Arctic research, and one globalist, highlighting the extra-regional impacts of Arctic change. This balancing of territorial and globalist arguments for a role in Arctic affairs is also highly compatible with the general direction of policy spelt out in Japan's and Korea's Arctic documents.

Conclusions

Shipping and shipbuilding are not quite as powerful drivers of the Arctic aspirations pursued by China, Japan and the Republic of Korea as many believe. Arctic maritime transport is viewed with rising caution at governmental as well as industry levels in these countries. Soberness in evaluating maritime business opportunities is evident, particularly in Japanese and Korean policy documents and industry statements. China's Arctic policy is more upbeat on Arctic shipping options, subsuming them under the larger Belt and Road Initiative as a "Polar Silk Road." However, the Chinese shipping industry's actual moves into the region have been cautious, and increasingly so over time.

The bottom–up approach we have taken here means that any distinct advantages that Arctic sea routes enjoy over the Suez and Panama alternatives—notably, shorter distances and associated savings of fuel and time—are seen in light of the specific political, bureaucratic, and economic conditions that surround shipping and shipbuilding in China, Japan and Korea.

The political attention those countries pay to the Arctic is clearly rising, but not as steeply as the rise in attention to Asia among Arctic-policy analysts. Claims to saliency as Arctic stakeholders are based primarily on the effects of Arctic climatic developments on their home territories and on the rights all non-coastal states enjoy under international law. However, China, Japan and Korea also emphasize their own contributions to scientific investigations in the Arctic as well as the relevance of their capital and technology for regional economic development. Especially in China's policy document, those reasons are reinforced by explicit references to its own

prominence in global governance and international affairs. All three underscore that they fully respect the sovereign rights of coastal states, and none of them has explicitly challenged the controversial unilateral shipping regulations that Canada and Russia have established for ice-covered waters adjacent to their coasts. At regional and global levels too, the Asian states have maintained relatively low profiles, in shipping-oriented activities under the Arctic Council and in the negotiations of a legally binding Polar Code under the International Maritime Organization.

The significance of shipping and shipbuilding for Asian engagement in the Arctic has also been conditioned by bureaucratic structures in each country and their proximity to industry associations and fluctuations in the relevant markets. The ministries of foreign affairs, and in Japan the Cabinet Office, have played important roles in the aggregation of comprehensive Arctic policies; in Korea the main driver has been the powerful Ministry for Oceans and Fisheries, which also has responsibility for shipping and polar research. Deep involvement of the segment of government closest to shipping and shipbuilding, characteristic of policy development in Korea and Japan, implies that elaboration of goals, priorities, and specific projects build on sector expertise sensitive not only to opportunities but also to political or economic constraints. In China as well as Korea, the two countries whose Arctic policies convey the clearest emphasis on economic use, the shipping industries have been financially overstretched in recent years and thus less prepared to commit themselves to heavy investments where the expected returns are potentially high, but uncertain and still far in the future.

For all three countries, rising attention to Arctic developments as well as broader aspirations of playing visible roles in global governance mean that maritime transport projects involving this region are assessed with considerable interest, but we find nothing to indicate that they will be pursued unless the expected returns equal or exceed those of other options. “Arcticness” matters—but competitiveness decides.

“China’s Economic Initiatives in the Arctic,” Yang Jian, Global Asia, December 2020 [26] https://www.globalasia.org/v15no4/cover/chinas-economic-initiatives-in-the-arctic_yang-jian

Overview:

While China is not an Arctic country, it has taken numerous steps to stake out its interests and demonstrate its ability to play a constructive and environmentally sustainable role in the future development of the region. By further integrating its policies in line with the rapid economic changes in the Arctic, China is expected to be a major player in the years ahead, writes Yang Jian.

Current & Relevant Information:

2013 was a remarkable year for China's participation in Arctic affairs. Beijing's Belt and Road Initiative (BRI) was first proposed by the government that year. Chinese shipping company Cosco's vessel Yong Sheng conducted the country's first commercial trial voyage to the Arctic Ocean in the same year. And it was in 2013 that China, along with several other Asian states, was granted formal observer status by the Arctic Council.

China is said to have taken a decade to transform from a non-Arctic state into an important Arctic partner and a stakeholder in Arctic affairs. In fact, China has gained great attention in Arctic economic development, Arctic climate and environmental governance because it is the world's second-largest economy and one of the largest emitters of carbon dioxide in the world. Its participation in the Arctic has also raised concerns about environmental protection and geopolitics.

Overall, China's BRI, including the so-called Polar Silk Road proposed by Beijing in a white paper in 2018, is a response to the global economic slump triggered by the financial crisis of 2008. After the crisis, Chinese policymakers felt that global economic flows had become stagnant. The US government's response was to pull manufacturing investment back to the US and regain trade advantages through strong bilateral trade negotiations. Based on its own development phase, China found that joining and facilitating regional and world economic flows and consumption was the best way to deal with the economic downturn. Facilitating regional economic flows and consumption can transfer China's excess manufacturing capacity abroad, on the one hand, and prepare new markets for future prosperity, on the other hand.

China's approach to facilitating regional economic flows is inspired by the Asia-Pacific Economic Co-operation (APEC) forum, which was created by the US. Around 1990, when the boom in the ICT industry began to take off, the US facilitated and utilized economic flows around the Pacific Rim by forging APEC to achieve lasting prosperity. The experience of joining APEC's economic flows, especially China's co-operation with Japan, South Korea, the US and ASEAN, convinced the Chinese government that participating in the most intensive economic flows in the world was the best way to maintain China's economic development and to make up for China's relative economic weakness. For China, these economic flows entail goods (port construction, port equipment, shipbuilding and the shipping industry), capital (investment and financial markets), technology (technical standards, intellectual property transactions and data flows) and construction capacity (export of infrastructure equipment and construction workers).

China's BRI is designed to participate in and facilitate economic flows around and on the Eurasian continent, while maintaining the economic interrelations between China and countries in the Pacific region. Moreover, there are many important "engine countries" that promote regional economic flows around and on the Eurasian continent, including ASEAN, India, Russia, Turkey and Kazakhstan. China hopes to

integrate this growing market by providing capital, technology, production capacity and infrastructure construction expertise. The joint efforts to build a blue economic passage linking East Asia and Europe via the Arctic Ocean are generally in line with the spirit of facilitating global economic flows.

Arctic Focus

China's economic co-operation projects in the Arctic are concentrated in two regions: Russia and Northern Europe. Building a global infrastructure network in the Arctic region, including coastal infrastructure and port facilities as well as economic development projects, contributes to economic flows. China did not propose the Polar Silk Road until 2018. The main reasons were: 1) Russia's determination to develop the Northern Sea Route (NSR) was not obvious before 2014; 2) Western countries and their companies were Russia's first choice for economic co-operation, while China was only Russia's secondary partner; and 3) Chinese enterprises lacked experience in developing projects in cold regions and lacked experience in making accurate assessments of the economic benefits and costs of environmental protection.

After the Crimean crisis in 2014, Western sanctions imposed on Russia turned China into a major source of inbound investment and a significant partner in Russia's Arctic development. Russia's determination to develop the Northern Sea Route and its Arctic energy strategy is becoming more and more obvious. Moreover, the LNG project in the Yamal Peninsula meets China's domestic demand for cleaner energy. China's participation in Arctic LNG projects is a part of its effort to replace coal and oil with natural gas, a less environmentally harmful fossil fuel. China's Silk Road Fund and the China Development Bank have also begun to invest in port construction projects in Russia. The launch of the Polar Silk Road means that China has the willingness to tap the economic flows frozen by the Cold War and cold weather. It signals that China will support Russia to build jointly the infrastructure in the Russian Arctic region needed for peaceful utilization of the sea routes in the future. The principle of co-operation is a win-win formulation in terms of the economy and sustainable development.

In September 2017, numerous Chinese companies announced that they were keen to invest in a new project near Arkhangel, which includes the Belkomur railway project and a deep-water port in the Northern Dvina River. A new port will be built near Mudyug Island in the Dvina River delta, close to the existing port facilities for larger vessels. In November 2017, Novatek, one of the largest independent natural gas producers in Russia, signed a strategic co-operation agreement with the Chinese National Petroleum Company (CNPC), which already owns 20 percent of Yamal LNG, a US$27 billion production project. As part of the Saint Petersburg International Economic Forum in 2019, Novatek also signed a share purchase agreement with China National Offshore Oil Corporation (CNOOC). Under these agreements, Chinese companies will acquire a 20 percent share in Novatek's Yamal

LNG 2 project under development, recently renamed Arctic LNG 2. With its construction, the demand for construction and transportation of LNG projects in the Arctic is expected to increase. It is foreseeable that Chinese shipping companies will continue to be important investors in Arctic LNG projects including provisions for ship leasing, logistic infrastructure, shipbuilding and so forth.

As for the Northeast Passage linking Asia and Europe, Russia has an important geographical advantage. It plays a key role in facilitating economic flows in the Arctic, but it also needs to improve the kinetic energy of the flows between the Far East region of Russia and the important economies in East Asia, and between Russia and Europe, especially the Nordic countries.

As a Nordic country, Iceland has the potential to be an Atlantic Arctic shipping hub, especially for traffic through the central Arctic shipping route that China has been led in exploring. Iceland hopes to enhance this hub role by facilitating co-operation with the important global economies, including the US and China. The successful co-operation between China and Iceland in polar science and education, geothermal energy and port cities has existed for many years. In 2012, China signed a framework agreement with Iceland to support greater co-operation on geothermal energy, along with marine and polar science. The Chinese company Sinopec and Iceland's AGEC have developed joint geothermal projects in 23 cities in China making use of Icelandic technology.

As a country on the easternmost side of Fennoscandia, Finland has long experience in dealing with Russia. Now it intends to play a key role in economic relations among Nordic and Baltic countries, and Russia and East Asian countries. Helsinki provides the air hub between the Nordic countries and East Asia. It serves six destinations in Greater China with direct scheduled flights, more than any other Scandinavian airport. Passengers traveling on scheduled flights from Helsinki to China account for 5 percent of all international passengers, with China the eighth most popular destination country. China is one of the main markets for the export of Finnish Arctic shipping technology. In 2012, the Finnish shipbuilder Aker-Arctic provided the concept and basic design for Xuelong 2, considered the world's most advanced polar research vessel. This 122m-long Polar Class 3 icebreaker entered service in 2019.

International co-operation with Arctic nations on digital infrastructure including subsea cable projects is also on the Polar Silk Road agenda. China Telecom (one of the biggest telecommunication operators in China) is co-operating with Finnish counterparts on a planned 10,500-kilometer fiber-optic submarine cable across the Arctic Circle.

Norway, meanwhile, is a global maritime power and the Arctic is Norway's most important foreign policy priority. Economic growth is higher and unemployment lower in the Arctic part of Norway than in the rest of the country, ensuring a good balance

between conservation and sustainable use. Norway has engaged in active co-operation with China in the protection and effective utilization of the ocean. Chinese equipment manufacturing companies help Norway build the world's largest intelligent deep-sea aquaculture cages to meet the increasing need for aquaculture in northern Norway and help Norwegian oil companies build large offshore oil drilling platforms. Kirkenes, Norway is the northernmost ice free port located on the Barents Sea and the closest western port to Asia via the Northern Sea Route. Political representatives of Kirkenes, including the mayor of the Sor-Varanger municipality, Rune Gjertin Rafaelsen, visited China as a member of a delegation led by the Norwegian Minister of Research and Higher Education in 2018 to discuss the future demand of China's shipping industry for Arctic ports. He said that Kirkenes is well prepared to open the Northern Sea Route and co-operate with Chinese shipping companies.

While attracting China to participate in Arctic economic flows, some Arctic countries also have been expanding markets in China for their products, such as seafood from Greenland, Iceland, the Faroe Islands and Norway, and energy products from Russia and other countries.

China's infrastructure construction capacity and speed are world-class and it has engaged in co-operation on infrastructure construction, marine engineering and port construction in Iceland, Norway, Finland and Greenland. In 2019, the Trump administration in the US put forward a boycott on China's Polar Silk Road co-operation but Nordic countries, being independent from the US, recognize the opportunity and necessity of co-operation with China. They also hope that the Arctic issue can remain as an imperative agenda item under the framework of addressing climate change and that the Arctic should not become an arena of competition among the great powers.

Building Regional Co-operation

In addition to the two key co-operation regions in the Nordic countries and Russia, China attaches importance to strengthening Arctic economic co-operation with its neighbors, Japan and South Korea. This reflects the "North Pacific lens" in Arctic affairs. They are all important economies with similar views and interests concerning the economic elements of the Arctic. Japan, South Korea and China are all important LNG markets, manufacturers of LNG production equipment and investors. They are all partners in the construction of port infrastructure in northern Russia. Japan has become an investor in the Yamal LNG 2 project, and Japanese enterprises have realized economic benefits from the Arctic through joint ventures with Chinese shipping enterprises. Japan's Mitsui OSK and China's Cosco jointly own six vessels for charter to Sinopec and three of the 15 icebreaking LNG carriers that load Yamal LNG cargoes at the Port of Sabetta in the Russian Arctic. The shipbuilding industry of South Korea has built several icebreaking LNG carriers for Russia to transport LNG to East Asia via the NSR.

There are some differences in assessments about the pace of development and utilization of Arctic economic opportunities among the three countries. Chinese shipping companies are more optimistic about Arctic shipping in the future. They increasingly believe in the commercial value of the Northeast Passage. In Cosco's view, the value of the NSR is an important supplement to the traditional maritime routes, so the company is determined to carry on its commercial and regularized operations in the NSR each year. The biggest difference among the three countries is that China is not an ally of the US, while both Japan and South Korea are. In their co-operation with Russia on Arctic economic projects, Japan and South Korea have to take into account the strategic considerations and sanction decisions of the US.

China encourages its enterprises to engage in international co-operation on exploring and utilizing Arctic resources by making best use of their advantages in capital, technology and domestic markets. Sino-Russian Arctic co-operation in this context has a realistic basis. It is part of the co-operative construction of the Silk Road Economic Belt and the construction of the Eurasian Economic Union. China also hopes the Nordic countries, Japan and South Korea will be responsive to the BRI and jointly facilitate economic flows along the Northeast Passage in the Arctic.

In investing and joining economic projects in the Arctic, Chinese companies should pay attention to two issues: geopolitical concerns and environmental concerns. It is difficult for Chinese enterprises to cope with geopolitical interference caused by non-market factors. For example, a Chinese construction company was forced to quit the bidding for an airport expansion project in Greenland due to the direct intervention of the US. However, Chinese enterprises can meet Arctic countries' requirements in legal, technological and environmental protection by enhancing their technological solutions and learning capabilities in a short period of time. It is the responsibility of Chinese enterprises participating in Arctic economic activities to abide by local environmental protection laws and assessment procedures. In its 2018 white paper on Arctic Policy, Beijing made a commitment to utilize Arctic resources in a lawful and rational manner. The phrase "in a lawful and rational manner" means a careful balance between conservation and sustainable use.

As a non-Arctic state and the world's second largest economy, China and its enterprises should attach more attention to strengthening publicity and education on addressing climate change. The Chinese government has also made efforts to make the BRI initiative "greener" by issuing Guidance on Promoting a Green Belt and Road in 2017. The International Coalition for Green Development on Belt and Road was launched in 2019. Chinese companies can be expected to slow down their investment in the Arctic in the near future to increase the awareness of the requirements of responsible and reliable business activities.

"What Is China Doing In The Arctic?, Rachael McCulloch, NATO Association of Canada, 23 September 2020 [27] https://natoassociation.ca/what-is-china-doing-in-the-arctic/

Overview:

In a 2018 publication regarding Arctic policy, China described itself as a “near-Arctic state”, a label that has since invited controversy due to the absence of geographical ties between the two regions.

Current & Relevant Information:

China’s justification for being classified as “near-Arctic” is explained in the document as due to their close involvement in trans-regional and global issues in the Arctic, especially in areas such as climate change, the environment, scientific research, utilization of shipping routes, resource exploration and security. “These issues are vital to the existence and development of all countries and humanity, and directly affect the interests of non-Arctic States including China,” it explains. “States from outside the Arctic region do not have territorial sovereignty in the Arctic, but they do have rights in respect of scientific research, navigation, overflight, fishing, laying of submarine cables and pipelines in the high seas and other relevant sea areas in the Arctic Ocean, and rights to resource exploration and exploitation in the Area”.

According to the Arctic Institute, China’s contemporary involvement in Arctic affairs began in the 1980s. Since that time China has conducted numerous Arctic expeditions and in 2003 established its first research base, the Yellow River Station, on Svalbard Island. The China Remote Sensing Satellite North Polar Ground Station, which was China’s first overseas satellite receiving station, opened in Kirkenes in 2016 and a second research station, the China-Iceland Arctic Science Observatory, opened in Iceland in 2018. There are currently four Chinese research stations in Antarctica and several more which are in development.

Thus far, China’s activities in the arctic have been primarily economic. China has poured money into nearly every Arctic country. For example, it has invested billions into extracting energy from beneath the permafrost on the Yamal Peninsula in northern Russia, is drilling for gas in Russian waters alongside the Russian company Gazprom, and is prospecting for minerals in Greenland. The International Institute for Strategic Studies wrote this year that China’s interest in the Arctic region can be boiled down to three major components: access to Arctic natural resources, use of the northern trade route, and the enhancement of its image as a major global power.

This brings us to the political components of Beijing’s activities in the Arctic. China has held observer status in the Arctic Council since 2013 alongside countries such as Japan, South Korea, Singapore, India, and Italy. Decisions at all levels in the Arctic Council are the exclusive right and responsibility of the eight Arctic States, however observer states are permitted to make contributions to the Arctic Council through participating in working groups.

According to a recent article by Defence News, over the past few years international politicians and media outlets have begun to take notice of China's role in the Arctic, often with skepticism. In 2019 Aleksi Harkonen, Finland's ambassador for Arctic affairs, told the New York Times that China's ambitions in the Far North mirror its ambitions everywhere else. "It's after global influence," he said, "including in the Arctic."

On the other hand, some Arctic states have welcomed China's engagement in the region and the potential role it can play as an investor. This is particularly true of Russia, whose natural resources in the Arctic have become increasingly exploitable thanks to Chinese capital investment.

Over the past three decades, the temperature in the Arctic has been steadily rising, resulting in diminishing sea ice in the summer. Scientists have predicted that by the middle of this century or even earlier, there may be no ice in the Arctic Ocean for part of the year. The melting ice has led to changes in the natural environment which could result in accelerated global warming, rising sea levels, increased extreme weather events, damaged biological variability, and other global problems.

Rising temperatures could also have significant impacts on Arctic development. The melted ice could offer opportunities for the commercial use of sea routes and the development of resources in the region. Commercial activities in the region will have considerable impact on global shipping, international trade and energy supply, bring about major social and economic changes, and exert important influence on the way of work and life of Arctic residents including indigenous peoples. The thaw will also pose new security challenges, as greater human activity induces nations to increase their military, diplomatic and political presence in the high north.

The strategic concerns of major Arctic players, namely Russia and the United States, along with those of large non-Arctic states such as China, have become major points of interest when discussing Arctic affairs. As climate change and emerging security concerns begin to play a larger role on the global stage, the Arctic can be expected to move away from the strategic periphery and towards a mainstream role in emerging strategic politics.

"China's shrinking Arctic ambitions are seen as confined largely to Russia," Jay Heisler, VOA News, 17 May 2024 [28] https://www.voanews.com/a/china-s-shrinking-arctic-ambitions-are-seen-as-confined-largely-to-russia-/7616382.html

Overview:

China's effort to establish itself as a "near-Arctic power" have become increasingly confined to the territory of its close ally Russia as other nations lose interest in cooperating with Beijing, according to Canadian security experts.

Current & Relevant Information:

The degree in which China poses a serious geopolitical threat in the Arctic region is debatable among experts.

Chinese efforts to establish research stations in up to half a dozen Arctic nations ground to a halt because of travel restrictions during the COVID pandemic. Mounting concerns over China's human rights record and its aggressive actions elsewhere have made several of those countries reluctant to see operations resume, said experts.

"In many ways our fear of China and the Arctic dates back to five or six years ago when China's power and influence seemed very much to be on the uptick in the region," said Adam Lajeunesse, a professor focusing on Arctic issues at St. Francis Xavier University in Antigonish, Nova Scotia. "Its political, economic and soft power influence in the Arctic outside of Russia has collapsed.

"Our fears of China are still lagging events. A lot from pre-COVID era when there was a lot of fears that China was going to dominate Arctic infrastructure. … That didn't happen," Lajeunesse said.

VOA reported in December 2022 that China had sent or announced plans to send several people to its two most important scientific outposts in Norway and Iceland after lengthy absences of Chinese scientists from both sites.

But there were no signs of China trying to renew two other scientific projects in Sweden and Finland, where national organizations told VOA that Chinese activity was set to end or had ended.

An earlier plan to set up a research base in Denmark's autonomous island of Greenland was shelved in the face of opposition in Copenhagen, according to Marc Lanteigne, a social studies professor at the Arctic University of Norway.

That has left Beijing — which has no direct access to Arctic waters — to focus its Arctic ambitions on Russia, with which it established a "no limits" partnership days before Russia's unprovoked full-scale invasion of Ukraine in February 2022.

China's interests in the region are believed to include fisheries, extraction of minerals and other resources, and a shorter sea route to Europe — all of which become more viable as the Arctic ice pack recedes in the face of climate change.

"China respects the sovereignty, sovereign rights and jurisdiction rights of Arctic countries," Liu Pengyu, spokesperson for the Chinese Embassy in Washington, told VOA in an emailed statement. "Issues related to the Arctic not only affect Arctic countries but also have global significance."

"China will work with all parties in getting to know more about the Arctic, as well as in its protection, exploration and management, with the view of greater peace, stability and sustainable development in the region," Liu added.

Many experts are watching China's arctic activities and national security professionals told VOA on the sidelines of an April 30 conference sponsored by the Canadian Military Intelligence Association there are still limits to how much cooperation China can expect from Russia.

"There is little doubt among Western nations that China will continue to seek research, infrastructure, and increased military engagement through direct and indirect means in support of its Belt and Road Initiatives," said Al Dillon, co-founder and CEO of Sapper Labs, a company that supports the intelligence and cyber defense needs of Canada and other English-speaking countries.

"The collaboration with Russia is concerning in this regard, while Russia will surely want to retain its own sovereignty and independence in the Arctic. The extent of this collaboration remains to be seen; however, we can be assured it will occur."

Artur Wilczynski, a former Canadian ambassador to Norway and retired senior official in several intelligence-related agencies, told VOA that Russia "was originally skeptical with non-Arctic state involvement in the region."

"Given Western sanctions and the Russian need for investment, China may exert more pressure on Russia rather than other Arctic states," Wilczynski said. "It may be easier for them to meet their Arctic interests through closer collaboration with Russia in the short term than try to address increasing Western skepticism of their engagement in either the North American or Western European Arctic."

Despite the focus on Russia, Samuel Jardine, head of research at London Politica, said Beijing is interested in acquiring access to the Canadian Arctic — a goal that may have led to a scandal over Chinese interference in the past two Canadian elections.

"In effect Canada is a doorway for China to not being seen to be isolated merely in the 'Russian Arctic' and maintaining influence and access to the whole region," Jardine told VOA in an email. "Something fundamental for a "Polar Great Power" which claims to be a "near-Arctic" state."

4. Environmental Protection:

"China's Polar Silk Road: Implications for the Arctic Region" Anu Sharma, Journal of Indo-Pacific Affairs, 25 October 2021 [29]
https://www.airuniversity.af.edu/JIPA/Display/Article/2820750/chinas-polar-silk-road-implications-for-the-arctic-region/

Overview:

The Arctic region has gained immense strategic, geopolitical, and economic importance in the twenty-first century. Its phenomenally rich biological variability is responsible for the increased interest in this region by major powers such as the United States, Russia, and China, apart from the Arctic nations. However, the Arctic

has also been in the news due to loss of ice, warming waters, increased sea levels, and the thawing of its permafrost. These are all due to increasing global temperatures and the extensive shifting of the Arctic's polar ice cap, eventually resulting in the thawing of sea ice. The increasing temperatures in the Arctic region have been drawing global attention for economic, geopolitical, and environmental reasons—among others. Unlike Antarctica, the Arctic is not a global common, with no overreaching treaty governing this region. All these factors have made the Arctic Five nations (Norway, Russia, Canada, Denmark, and the United States) as well as the three nations proximate to the Arctic Circle (Iceland, Finland, and Sweden) contemplate the probable scenarios related to the initiation of new navigational routes there. Furthermore, the discovery and utilization of untapped resources in this region have made it attractive to these nations and even vital for economic and geopolitical reasons. In the emerging geopolitical scenario, with the aim of acquiring great-power status and gaining geostrategic prominence, it has become crucial for nations to contemplate national strategies along with military capability in the Arctic. As far as strategic considerations, economic progress, geopolitical stakes, and sociocultural collaboration across borders have become important parameters.

With China emerging as one of the prominent players in the Arctic region, discussions and deliberations related to China's plans and policies have taken center stage. China has emerged from being a peripheral partner to an active member in the Arctic Council in the span of a decade. In that same decade, global warming and the emergence of new economic and strategic opportunities have led to the increased prominence of the Arctic not only in Chinese policy making but also in the policy-making circles of other major players such as the United States and Russia. Furthermore, from a scientific and environmental point of view, the Arctic region has emerged as a laboratory that every nation wants to explore.

Historically, this region was crucial during the Cold War due to intense military competition between the United States and the Soviet Union. During the Cold War, the region had faced a dramatic shift from being a subtle theater of operations (i.e., for the positioning of strategic weapon systems) to the center for various initiatives concerning transnational cooperation. During this period, the Arctic acted as a frontier between NATO and the Soviet Union and was littered with military bases and expensive hardware. However, after the disintegration of the Soviet Union, many of those assets were dismantled or allowed to decay. In contemporary times, this region is emerging as a geostrategic trigger point in a way similar to Cold War politics. With the exception of conventional Arctic nations, an increasing number of international organizations and non-Arctic nations—including China—are exhibiting amplified interest in this region. China proclaiming itself a "near-Arctic" state and assuming the position of being the keenest observer in the region is leading various other significant stakeholders in the region, such as Russia and the United States, to take note of China's emerging Arctic policies. This context makes it important to analyze China's emerging policies and plans.

In 2018, China released a white paper titled *China's Arctic Policy* describing its policy in the Arctic. The analysis reflected China's confident and proactive policies related to the region. Outlining Beijing's precise aims there, the paper explicated Chinese stakes, linking them to the growing Belt and Road (BRI) trade initiative through the "Polar Silk Road."[1] It can be said that Beijing's aim is to build a Polar Silk Road in the Arctic region, thereby linking Asia and Europe through logistics and transportation channels traversing this region. Furthermore, China's interests can be divided into two categories. First: Beijing's close involvement in the domains of scientific research, resource survey (and the handling of this type of research), shipping, and maritime security. And second: the probable effects of climate change on the region, rightfully highlighted by China as a valid reason that warrants the concern of major players in Arctic matters. The thawing is producing a novel regional order for the practice of statecraft among Arctic and near-Arctic nations. As indicated by Chinese aspirations for its inclusion in the Arctic Council, China identifies the prospect that its participation in the growth and expansion of the Arctic's new regional order will lead to increased opportunity for Beijing to mold the Arctic to its advantage and its national interests. China's aspirations related to the Arctic region and the evolution of its policy for the Arctic are discussed in detail further below.

Current & Relevant Information:

Issues in the Arctic Debate

The Arctic is not very populated; severe climatic conditions contrast abundant mineral resources that make it a significant air and water route. According to Joseph Roucek, "the Arctic Ocean is in reality the constituent of the Atlantic Ocean whose littorals include the landmasses of the Northern Hemisphere. It is also called as the 'polar Mediterranean.'" The contemporary geopolitical scenario has imparted great significance to this region due to the presence of oil, gas, and other noncombustible minerals as compared to the Antarctic region. This has led the Arctic to emerge as an ideal region in which technological developments related to resource utilization eventually force "a new evaluation of locational factors of the region." This has eventually led the issue of governance to gain prominence, linked with varied interests and aims of various nations (figure 1). The Arctic nations' utmost desire is to pursue their rule of the area entirely; however, other nations visualize this region as part of the global commons. Much of the debate related to the legality of the Arctic region has focused on two aspects. First, whether there is a need to create new legal framework related to the Arctic region that is based on the International Treaty on the Arctic. (In fact, this International Treaty of the Arctic is based on the Antarctic Treaty.) And second, whether to authorize treaties signed in the past—for instance, changing the Arctic Council into a formal international organization.

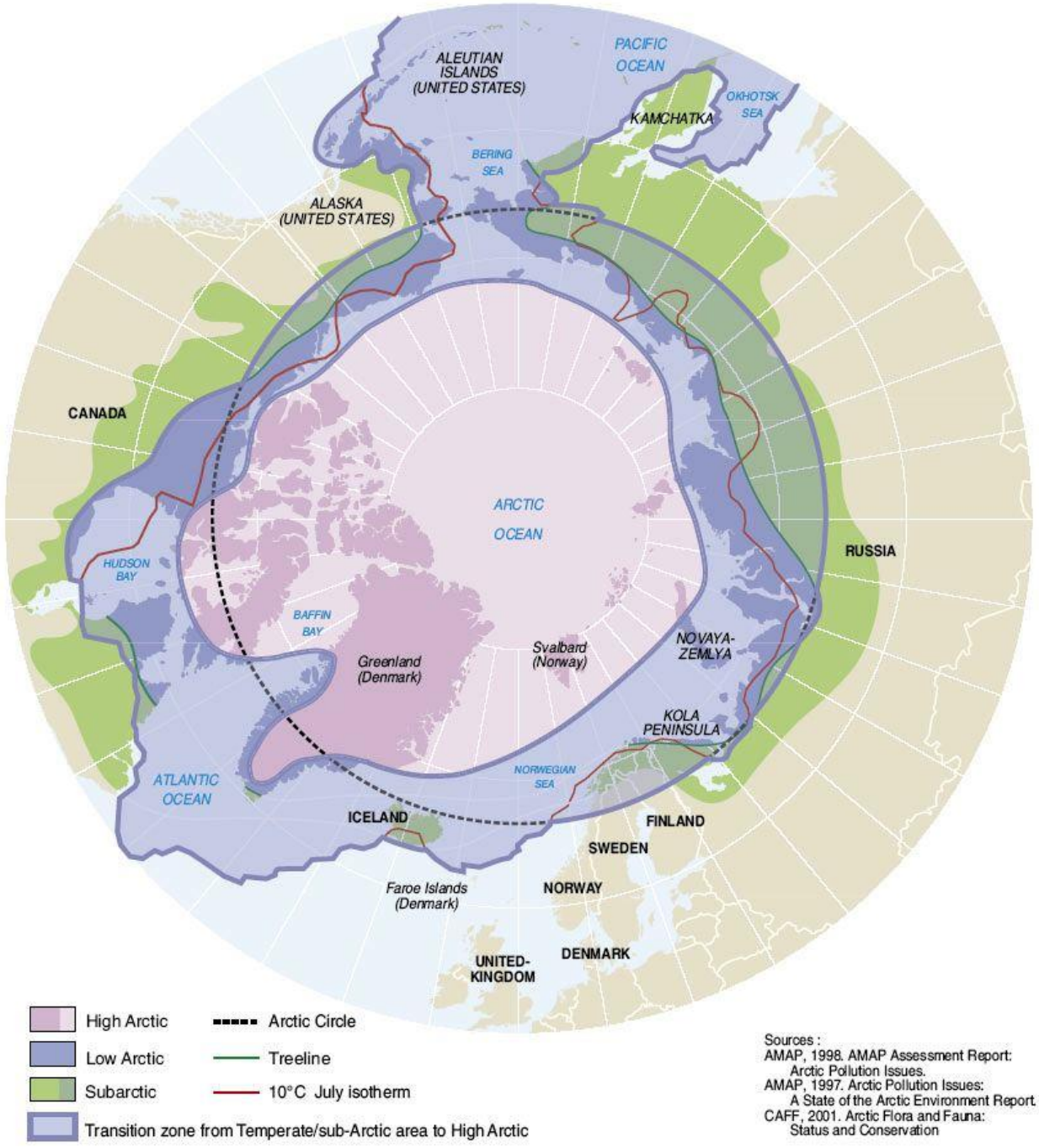


Figure 1. The Macro-Arctic Region, depicting the subregions therein

The Ilulissat Declaration tried to communicate to other nations desiring to be part of the Arctic region that the original Arctic Five nations retain their primary role in governance. This was reaffirmed by the document, wherein it was declared that “by virtue of their sovereignty, sovereign rights and jurisdiction in large areas of the Arctic Ocean the five coastal states are in a unique position to address these possibilities and challenges.” Subsequently, the Arctic Five’s innate right to be the

vanguard of Arctic politics was pronounced once again: “[T]he Arctic Ocean is a unique ecosystem, which the five coastal states have a stewardship role in protecting.” This perspective raised a question regarding the limitation on the rights of both Arctic and non-Arctic nations to impact the region’s future. This question remains unanswered in the current scenario, and its answer depends on the future orientation of the Arctic Five. The declaration also played a key role in defining or highlighting universal cooperation in the Arctic. In this regard, the littoral states have tried to work, both independently and in cooperation with each other, to preserve environmental stability. Not only that, but the cooperation between littoral states is also causal to the Arctic Council’s exertions and collaborating in scientific research and information-sharing.

The Arctic is attracting the political interests of various nations that are quite far from the region. These include the European and Asian big and small powers as well as polar and tropical powers. This interest correlates, at various levels, to several geopolitical factors related to the Arctic—the geographical positioning and placement of the Arctic region amid the three continents (North America, Europe, and Asia). This leads to shorter trade distances between various destinations in these continents, thereby reducing the transit duration. There exists also the presence of mineral and industrial resources, especially oil and natural gas. This presence is one of the primary reasons for the increasing strategic significance of this region. The Arctic’s natural resources have, in turn, increased the possibility of economic and energy security for the nations that are involved in regional resource extraction; the sea lanes of communication (SLOCs) around this region and their relation to the manmade circumstances and operational conditions; effects of global warming and climate change (in turn offering better conditions for the exploration and exploitation of resources); and the regulatory similarity to the prevailing global ocean agreements, particularly the third United Nations Convention on the Law of the Sea of 1982 (UNCLOS III). In fact, these factors have been responsible for the interests of the major players, providing a glimpse of the geopolitical scenario in the Arctic. In all this power play, Russia and China have been heavily investing in the Arctic, which will eventually affect the American presence there. Besides the increasing political and geopolitical significance of the region, its economic aspect is also relevant. With the possibilities of an increasingly ice-free Arctic region looming large, countries such as China are now eyeing the economic profitability of the region due to untapped oil and gas resources and its shorter international transit routes.

Based on the above discussion there are three major issues that have come to the forefront of the Arctic debate: natural resources, maritime routes, and environmental concerns. The strategic calculus of all the major players revolves around these three specific issues.

Natural Resources

Natural resources have become a prominent reason for the enhanced interest in the Arctic. With the thawing of the Arctic ice cap, the readily available natural resources and their easy accessibility are enticing for all the major powers of the world, including China. The energy resources have tremendous potential, but the unfavorable climatic conditions and technological barriers they present prevent the full utilization of these resources for the profitability of the parties involved. There is no clear agreement on the precise volume of the undiscovered oil and gas reserves, but the projected volume of the Arctic Shelf's undiscovered oil and gas reserves is estimated to be around 90 billion barrels, 1,670 trillion cubic feet of natural gas, and 44 billion barrels of natural gas liquids, according to the estimates of the American Geological Survey.[9] These resources amount to almost 22 percent of the undiscovered resources in the world that can be harvested using existing technology. Out of this, almost 84 percent of these resources is anticipated to occur offshore. As such, major challenges can arise for the development of natural gas.

Even though this region is rich in natural gas resources, the development of the same could be hampered owing to the low market value of natural gas as compared to oil. Additionally, consumers of natural gas located far from this region will have to bear greater transportation costs as compared to oil and natural gas liquid transportation. Definitely, the difficult terrain and environment of the Arctic region—due to harsh climatic conditions as well as high and extremely cold winds—make the going difficult for the evolving energy projects. Consequently, it results in shorter operating seasons, which eventually require special equipment, thereby increasing costs. In contrast, the dearth of infrastructure networks poses its own challenges, making transportation difficult and economically burdensome due to longer travel distances and harsh weather, drastically and directly affecting the transportation timelines as well. In environmental terms, the Arctic’s ecologies are fragile and can be very easily disrupted due to the exploration activities inherent to oil and gas development. At the same time, the melting of tundra may become problematic for the construction of natural gas pipelines. This can eventually increase the significance of liquefied natural gas (LNG) and maritime transportation.

Maritime Routes

There are currently two main maritime routes that are emerging from the Arctic: the Northwest Passage (NWP) and the Northern Sea Route (NSR). There are other plausible maritime route options that are available such as the Transpolar Sea Route (TSR) and the Arctic Bridge (figure 2).

Source: Dr Jean-Paul Rodrigue, Department of Global Studies & Geography, Hofstra University,https://transportgeography.org/wp-content/uploads/Map-Polar-Routes-Simplified.pdf.

Figure 2. Polar shipping routes

At present, the passage is possible only in the summer months. However, due to presence of ice, the NWP route is still not viable. Furthermore, the COVID-19 pandemic added to an unanticipated delay in this effort. Once established, the NWP will definitely lessen maritime shipping distances and shipping time considerably. The maritime distance between East Asia and Western Europe would be only 13,600 km via the NWP as compared to 24,000 km traversing through the Panama Canal. The NWP was made operational in 2007 during the summer months. America has long maintained its right to pass its sea vessels through this

shipping route without asking formal permission from Canada. Canada's disagreement with this practice and the United States' steadfast attitude toward this sea route have led to a mild disagreement between the two neighbors. However, this disagreement was resolved (with more of a political than legal fix) through the signing of the Canada–United States Arctic Cooperation Agreement in 1988.

The NSR is located along Russia's Arctic coast. It is speculated that this maritime route likely will be the first to be free of Arctic ice; therefore, it has the highest commercial viability. It would minimize the maritime distance traveled between East Asia and Western Europe from 21,000 km via the Suez Canal to 12,800 km through this new route. Also, it will reduce the transportation time by 10–15 days. In the past, this route was used to supply military and resource extraction throughout the Soviet Arctic during the Soviet era. However, due to the fall of the Soviet Union in the early 1990s, this traffic dropped drastically but picked up pace again in the 2000s. In 2009, two German ships, *Beluga Fraternity* and *Beluga Foresight* (along with a Russian icebreaker escort), completed the first commercial journey across the NSR, linking Busan city (South Korea) to Rotterdam (the Netherlands) after various layovers. Trials by other shipping lines through this route haven't been particularly successful commercially. It was also at this time that the NSR was opened for international transits, with Russia employing resources for developing the route at various levels—including the introduction of changes in federal laws and regulations. Simultaneously, Russia also ventured into developing offshore and onshore infrastructure, as well as publicizing new shipping opportunities. However, this heightened interest of the major players in the NSR as a potential profitable maritime route has also emphasized the hindrances related to the stable development and operation of this route. These challenges refer to the possible economic and environmental risks in the course of the NSR, due to the ambiguity related to the duration of the viable navigation season and sudden disparities arising in the oceanic and sea ice regimes in this region.

Another emerging Arctic Sea route is the TSR. This route would utilize the central part of the Arctic Sea to connect the Bering Strait (which separates Russia and the United States slightly south of the Arctic Circle) with the Atlantic Ocean near Murmansk (a port city in northwest Russia). However, at present the route, even though most viable, remains hypothetical. The Arctic Bridge connects Murmansk (Russian port) or Narvik (Norwegian port) to Churchill (Canadian port). This bridge could be utilized for this transit route. Although this route is not a trans-Arctic route intrinsically, its aim is to link the two hinterlands (Northwest Europe and the North American Midwest) via the Arctic.

Definitely, freight transport within Arctic waters requires icebreakers and ice-class carriers. Currently, Russia tops the list of owning icebreakers with 46 (11 under construction and four planned) followed by the United States with five ice breakers (and three planned) and China with three ice breakers (and one under

construction). China has become the first nation to use an atomic-powered icebreaker that competes in size with Russia's largest nuclear-powered icebreakers. It is pertinent to mention here that Russia is the only nation to have nuclear icebreaker capability. A nuclear icebreaker will enhance China's ability to navigate the Arctic Ocean even during the adverse winter climate. China's plans to develop a nuclear icebreaker can be considered as the most recent step in an effort to pursue a more active role in Arctic diplomacy.

Environmental Concerns

The Arctic's unique natural characteristics include severe weather conditions, extreme disparity in light and temperature, massive snow and ice cover in winter, and vast tracts of permafrost. The region is rich in hydrocarbons and fish stocks. The Arctic's environment is quite delicate and susceptible to technological development. Therefore, it has a pressing need for protection, as this region is the prime juncture for the network of ecological interactions of the whole planet. This region has witnessed the negative effects of climate change most of all, and due to these climatic variations, the Arctic has gained immense significance—to the detriment of the environment. The Arctic region includes three major biomes: the polar desert (nearest to the North Pole), the tundra, and the boreal forest (aka taiga in Eurasia) located in the southern parts of the Arctic. The region is the most affected of all by global warming. It is certain that climate change in this region has been responsible for physical, ecological, sociological, and economic impacts around the globe. The major contemporary apprehensions are consequences due to long-range air and sea transport of pollutants as well as specific human activities. These include interference with ancient animal migration routes, oil and chemical spills into the sea, and the unanticipated influences of climate change resulting in the melting of the ice cover. Many of these effects will take an incredible amount of time and effort to reverse. These aftereffects of global warming have drastically affected the physical, chemical, biological, and human components of Arctic ecosystems. The damage is incalculable, widespread, and quickening. In fact, global warming has resulted in a domino effect of alterations in the physical form of the Arctic environment, which includes the melting of sea ice and rise in the sea level, reduction of albedo (surface reflectivity), coastal erosion, and enhanced warming of the ocean due to feedback loops among various climate factors.

China's "Polar Silk Road"— Conceptualization and Implementation

China's interest in the Arctic and the evolution of its Arctic policy began in 2010. However, the Arctic was not high in its list of foreign policy agenda at that time. These interests and ideas diversified with the increase of Chinese diplomatic and economic activities in the region. In fact, China aimed to increase its foothold there by involving itself in Arctic affairs and working to be acknowledged and included as an Arctic stakeholder. Through a video message, the Chinese foreign minister, Wang Yi, claimed that China is a "near-Arctic state" and, to substantiate this

argument, discussed China's long history of Arctic interests going back to China being a signatory to the Spitsbergen (Svalbard) Treaty in 1925. He mentioned this at the Third Arctic Circle meeting held in October 2015 at Reykjavik, Iceland. It clearly indicates that through this he was trying to highlight—and legitimize—China's increasing interests and role in the Arctic region. These ideas were further reaffirmed and made visible in 2017 when the *Vision for Maritime Cooperation Under the Belt and Road Initiative* was released by China's National Development and Reform Commission in collaboration with the State Oceanic Administration. This document highlighted the "blue economic passage . . . leading up to Europe via the Arctic Ocean." The basic idea of linking Europe and Asia through the melting Arctic was then extended and hailed as the "Polar Silk Road" in Beijing's white paper discussing its Arctic policy in 2018.

However, Chinese thinking behind the development of Arctic routes and investments goes back to 2013, when China decided to invest in the Russian Yamal LNG Project. Chinese stakeholders in the Arctic region have gradually become active in Arctic matters ever since May 2013, when China received observer status in the Arctic Council. In mid–2013, a commercial ship of the China Ocean Shipping Company, *MV Yong Sheng*, commenced on the first trip from a Chinese port to Rotterdam through the NSR. It followed the maiden transit route taken by Chinese icebreaker *RV Xuelong* from China to Iceland in 2012 via an Arctic Sea route.

China's vision, policies, and actions related to the Arctic have focused on scientific aspirations. These look to the effects of climate change on this region, especially on its geography, climatology, geology, glaciology, and oceanography. China has built, developed, and maintained its own scientific station in the Arctic region since 2004 for that reason. The station, known as the Yellow River Station, located on Svalbard, is run by the Chinese Arctic and Antarctic Administration. Since 1993, after purchasing the icebreaker *Snow Dragon* from Ukraine, China has conducted several expeditions to both the Arctic and the Antarctic regions. China has launched several expeditions and increased its efforts to develop networks and cooperation with other Arctic nations. China, seemingly like other non-Arctic nations, is actively taking part in general science diplomacy, collaborating with other nations through research activities to legitimize and support its rising presence and influence in the region. These scientific collaborations help China smooth out its Arctic diplomacy and facilitate its regional growth by improving and consolidating its image and relations with other Arctic states through trust-building and assimilating China into Arctic governing circles. In this regard, China is establishing scientific alliances with Russia to carry out collaborations in exploration exercises and research missions, as well as to explore the new and emerging shipping routes that will help China overcome its well-known "Malacca Dilemma." However, it should be noted that China–Europe trade through the Malacca/Suez route via the Indian Ocean has more immediate and larger European concerns as compared to China's nascent Polar Silk Road. Almost 80 percent of trade between China and Europe passes through the Strait of

Malacca, including oil trade. At the same time, it can also not be ruled out that China's Polar Silk Road through the Arctic region can create more competition for European nations in various fields such as maritime trade, shipbuilding, emerging growth niches in blue economy, and the global presence of the Chinese navy. These can result in friction between Chinese intentions in the Arctic versus claims by the European nations there. It can be said that China's push to develop the Polar Silk Road will not diminish the importance of Strait of Malacca for either Europe or China. At the same time, the contestations between the two in the Arctic might result in retaining the significance of Strait of Malacca as a trade route.

Another important reason for China to take extensive interest in the Arctic region also pertains to commercial drivers and apprehensions related to safeguarding and expanding its energy supply chains. Chinese energy firms are vying for access to the Arctic's onshore oil and gas explorations in the coming years. The usage of Arctic Sea routes, exploration, and development of the resources in this region can have a major impact on Chinese energy strategy—China being the top energy consumer in the world. China's monetary might, technological know-how, market base, knowledge, and expertise will play significant roles in broadening the shipping route networks. China has attempted to clarify its mutual interests with other Arctic states, linking it with a shared future with other global players.

Another important driver of China's Arctic policy remains the SLOCs. The Belt and Road Initiative expansion to the Arctic region is built particularly on the promotion of maritime operations through the NSR along the Russian coast in the Arctic Ocean. Due to the melting of glaciers and sea ice, global warming, and climate change, the Arctic region's vast resource wealth has been acknowledged as a new economic hinterland. The region contains almost one-fourth of the world's unexplored oil and gas resources, in addition to other natural resources. Therefore, all these factors combined stimulate China's enhanced aims as well as the emerging geopolitical dynamics. Greater demand for energy and hydrocarbon resources at home to boost the domestic economic scene, as well as the full utilization of the Arctic maritime routes, emerge as significant, economically helpful possibilities for China. Also, navigation routes such as the NSR and the NWP are vital for the expansion of the BRI in the Arctic region. China's proclamation of being a near-Arctic state is its attempt to strengthen its legal right to increase its influence in the geopolitical developments. In this scenario, the white paper clearly proclaims China's ambitions and how it wants to use the Polar Silk Road to link its enormous commercial and infrastructure projects in Asia and Europe through an extension of the BRI to the Arctic.

Moreover, Chinese alliance and cooperation with other nations through bilateral and multilateral means have become clear through policy expansions. An example is China's collaboration with Russia for its Yamal LNG project. Yamal is the linchpin of China's Arctic infrastructure projects and signifies an "anchor" project intended to

establish a commercial presence that will eventually back all the related investments in the region under the BRI umbrella. To move forward in advancing maritime cooperation as part of BRI, Beijing in 2017 declared plans for three purported “blue economic passages” that will connect Asia with Africa, Oceania, Europe, and beyond. Among them, there is a single passage route that links China with Europe through the Arctic Ocean. It officially connects the BRI to Beijing’s Arctic interests, aims, and ambitions. China approaches the Arctic region from multiple perspectives, including Beijing’s interest in resources, trade and investment owing to domestic requirements, and preserving a symbolic presence in the geopolitics of the Arctic. China’s Arctic engagement takes place through bilateral partnerships, mainly with the European Arctic states, as well as multilateral alliances through institutional engagement, largely the Arctic Council. In all this, Russia has so far shown a welcoming attitude toward Chinese involvement in the NSR and Arctic; however, the pace of Chinese involvement has been quite slow. But China’s strong desires and ambitions are pushing it to quicken the pace as well as “gradually increasing its participation in projects that represent its crucial interests.” China is also one of the most important nations that is involved in international maritime trade. China is placed fourth in the ownership of vessels around the world and executes 90 percent of its commercial trade through maritime transport.

It can safely be said that China’s engagement in the Arctic is based on win-win gains between China and various other players including Russia. This has been underscored by participation in multilateral cooperation with other Arctic nations and by being a part of Arctic Council. China’s emergence confirms its strengthening presence in global power politics. In the Arctic, China’s engagement tracks its official policy as declared in its white paper highlighting its determination to sustainably utilize opportunities to turn geopolitical dynamics in China’s favor. Due to repeated declarations by China regarding climate change and other environmental threats, it has shown its intent to protect this region from environmental hazards—that is, China is intent on projecting a perception of being a concerned and accountable nation in the Arctic region. However, it should be kept in mind that China is the largest emitter of greenhouse gases globally, followed by the United States and India. China’s permanent membership at the United Nations Security Council, observer status at the Arctic Council, and emergent bilateral and multilateral partnerships with several Arctic nations allow China to claim a legitimate presence in Arctic affairs. This claim is again reaffirmed by China’s self-proclamation of being a “near-Arctic state,” with the ultimate goal of reinforcing the validity of its soft-power presence in the Arctic.

At the same time, the challenges facing China range from the difficult geophysical environment of the Arctic to the economics related to infrastructure and investment projects China is undertaking in the region. Added to this is a delicate environmental balance that makes human activities challenging. At present, oil resource extraction in the Arctic is comparatively less cost-effective when compared to extraction in any

other parts of the world, coupled with the uncertain risks associated with Arctic conditions. This has emerged as the primary reason for the reluctance of businesses to invest in projects there. Similarly, the Arctic routes—especially the NSR—are not yet advanced enough to serve as regular international navigation routes. Still, China's move toward the Arctic can be considered strategic. And the recent developments under the BRI's extension to the Arctic suggest that China is progressively, but definitely, becoming more assertive in its regional multilateralism.

Conclusion

China's Arctic policy is mildly revisionist, as it poses both challenges and opportunities for cooperating with circumpolar states. This article has outlined that China's white paper portrays how it envisages the Arctic region, highlighting a strategic position in favor of China's interests in SLOCs, resource extraction, scientific exploration, and climate policy. At the same time, the white paper reinforces China's position, one in which China can project authoritative guidelines to marshal its Arctic activities. China's admission to the Arctic Council with member status as a permanent observer sends a clear message regarding its intentions to influence Arctic matters. What kinds of competitions and frictions emerge in the Arctic region remain to be seen. China's assertions of being a "near-Arctic state," a "responsible power," and an "important and legitimate stakeholder" form a major part of the argument in the white paper. At the same time, adherence to an international legal framework and environmental norms remains at the heart of Chinese politics. With its expanding BRI plans, China has emerged as one of the most powerful economies in the world, with the primary aim of promoting its political influence in world affairs. Beijing regards the BRI's extension to the Arctic through the Polar Silk Road as a project that will help it further realize China's ambitions to become a political and economic global power. As an economic powerhouse, China aims to play a leading role in global politics. However, China is chasing this dream through alternate methods as compared to traditional norms (i.e., a peaceful rise to great-power status through sustained economic growth). The Polar Silk Road, if successfully functional, can underwrite China's economic ability globally, promote its strategic soft-power diplomacy, and ultimately achieve its aim to be a truly great power.

The mounting tensions between the United States and China will pose a challenge to China's Arctic strategy. At the same time, China's involvement and behavior related to the South China Sea dispute might pose its own hindrance to the bigger goal. It will be beneficial for China not to engage in confrontational behavior due to the strategic value of the Arctic. At the same time, through various economic and commercial commitments, China has taken constructive diplomatic steps to cultivate relations with the Arctic Council that will facilitate Chinese interests. China has entered into joint ventures with Russian gas companies, in addition to building an embassy in Iceland and financing the Kouvola–Xi'an train in Finland. China has also

warmed relations with Norway and Greenland through various investments. This inflow of investments will, in turn, help Greenland to lessen its reliance on Denmark. Moreover, all this has helped China to increase its foothold in Arctic nations. Though China has maintained positions that it is concerned about the climate and environment of the Arctic region and has economic interests there, it cannot be ruled out that all this may be only a small portion of the larger geopolitical narrative that China is pursuing as it strives to be recognized as a responsible major power with growing global reach at a time when the United States is stepping back from international commitments.

"China's Fight Against Climate Change and Environmental Degradation," Lindsay Maizland, Council on Foreign Relations, 19 May 2021 [30]
https://www.cfr.org/backgrounder/china-climate-change-policies-environmental-degradation

Summary:

China's carbon emissions threaten global efforts to fight climate change. Its broader environmental degradation endangers economic growth, public health, and government legitimacy. Are Beijing's policies enough?

China is the world's top emitter, producing more than a quarter of the world's annual greenhouse gas emissions, which contribute to climate change.

It pledged to cut emissions under the Paris Agreement, reduce coal use, and invest in renewable energy. But its Belt and Road Initiative still finances coal-fired power plants abroad.

Air pollution, water scarcity, and soil contamination remain threats to the health and livelihoods of China's people, increasing dissatisfaction with the government.

Current & Relevant Information:

Introduction

China's environmental crisis, the result of decades of rapid industrialization, not only threatens the health and livelihoods of the country's 1.4 billion people but also the global fight against climate change. As the world's largest source of greenhouse gas emissions in recent years, China suffers from notoriously bad air pollution. Its carbon-intensive industries have caused additional environmental challenges, including water scarcity and soil contamination. And, like the rest of the world, China will face increasingly harsh consequences of climate change in the coming decades, including flooding and droughts.

In response, Beijing has implemented policies to curb emissions and stem further degradation, such as by signing the 2015 Paris Agreement on climate and pledging to be carbon neutral by 2060. However, following through won't be easy, experts say, as the government struggles to maintain economic growth; ease public

discontent; and overcome tensions with the United States, the second-largest emitter.

“Greening Arctic Cruise Shipping Through Law and Technology: A Role for China?” Stefan Kirchner, Arctic Yearbook, 2018 [31]
https://arcticyearbook.com/images/yearbook/2018/China-and-the-Arctic/AY2018-Special-Section-Complete.pdf#page=71

Abstract:

Increased shipping in the Arctic will mean not only increasing tourism revenue for local communities but, more importantly in the long run, increasing health risks for local residents. The overwhelming majority of ships is powered with fossil fuels and concerns over emissions have led to the creation of Emission Control Areas, such as the Sulphur Emissions Control Area (SECA) in the Baltic Sea, the North Sea and along much, but not all, of the coasts of the United States and Canada. None of the existing SECAs includes areas north of the Arctic Circle. This means that coastal communities, in particular in cruise ship destinations, are put at risk from high emissions of SO2. The research presented here shows that China has the potential to play several roles in contributing to the protection of coastal communities in the Arctic and in safeguarding the human right to live in a healthy environment, which has long been recognized by the European Court of Human Rights. It will be shown that China has the potential to use international forms of cooperation in the context of the work of the International Maritime Organization in order to support the establishment of a SECA for the entire Arctic Ocean but can also profit from it in the long run, provided that China’s shipbuilding industry becomes able to meet the needs of more environment conscious ship buyers.

Current & Relevant Information:

Introduction

Cruise shipping is booming globally — and in the Arctic in particular (Nilsen, 2018; Wright, 2018). As the Arctic is undergoing unprecedented changes, it is becoming a desired travel destination. In light of the fragility of the Arctic marine environment and the multiple effects of cruise shipping on the natural environment as well as on coastal communities, ensuring at least a minimum level of sustainability of cruise operations requires international regulation. This will likely involve non-regional actors; in particular countries whose citizens are particularly active in Arctic tourism.

For some time, China has been pushing for more recognition and a more active role in Arctic affairs by trying to get more involved in regional decision-making processes. A case in point is China’s involvement with the Arctic Council where China has gained Observer status. For the self-styled “near Arctic” state, this is an important achievement as China has long sought a seat at the table. These efforts are not an end in themselves. China has economic and security interests in the Arctic, both of

which can raise concerns among Arctic nations. In order to gain support - or at least a lack of opposition - from Arctic states for China's Arctic ambitions, it appears likely that Arctic states' governments will have to see positive sides to China's Arctic ascendance. In other words, China's involvement in the region might face resistance or at least resentment1 unless it is seen as beneficial for Arctic states and local communities.

While China's official role in cruise tourism is still relatively limited, the large number of Chinese visitors to the Arctic give China an interest in the region and in the well-being of their citizens. Likewise, states, like China, should not overlook the impact tourism has on local communities. Accordingly, the well-being of local residents in tourism areas should also be taken into account by the home countries of visitors. While the sovereignty of the receiving states prevents tourists' home states from taking direct action, a cooperative effort aimed at safeguarding the rights and interests of local communities in tourism regions is in the interest of all sides. The sustainability of Arctic tourism can benefit from the involvement of the home countries to tourists who visit the Arctic. This can be done through raising tourists' awareness of local conditions and the needs of local communities prior to departure or by influencing international legal frameworks relevant for tourism activities. This text is concerned with the latter aspect.

It will be shown that there might indeed be a way for China to actually make a positive contribution which benefits the people who live in the Arctic. One way to do so, and the focus of this article, would be for China to take an active role in protecting Arctic coastal communities against air pollution from ships. While such action might not provide immediate benefits for China, it could increase acceptance of Chinese tourism-related activities by local communities in the Arctic. This is a factor which is not to be underestimated because for many small Arctic communities, the current tourism boom, which is to a significant degree fueled by Chinese visitors, is a mixed blessing: local economic benefits clash with the environmental and cultural costs of opening up to mass tourism of questionable sustainability. Reducing the air pollution caused by cruise vessels operating in the Arctic is one way to protect coastal communities.

In order to assess the likelihood of such a move, different aspects will be investigated, in particular the current state of international law when it comes to protecting Arctic coastal communities from vessel-source air pollution, green shipping technology and China's Arctic policies, as evidenced by the nation's 2018 Arctic White Paper (People's Republic of China, 2018).

Concluding Remarks

When keeping in mind China's environmental policies at home as well as the disregard for human rights, including the right to health, it seems questionable at first whether China might actually pursue such a course of action. In the Arctic, however,

China has to – and appears to be – following other rules. Cooperation across borders is essential in the Arctic and non-Arctic states such as China will be dependent on the cooperation of Arctic states in order to be able to do business in the Arctic. Cooperation with Arctic states will usually require predictability as a partner, which in turn will require compliance with international agreements which apply in the Arctic. So far, China appears to honor international law in its activities in the Arctic. Utilizing international law as a tool to contribute to the provision of practical benefits for Arctic communities might provide long term benefits for China in the form of increased access to cooperation with Arctic states.

For the time being, air pollution by ships remains a significant concern for coastal communities. While steps have already been taken by the IMO, a more complete transition towards greener shipping technologies will be inevitable in the long run. China has the technical and legal means to contribute to an improvement of the situation. It remains to be seen in how for China's commitment to international law and cooperation, including in the fight against air pollution by ships, which has been affirmed in the government's Arctic Policy White Paper in early 2018, will actually be implemented with a view towards the wellbeing of the people who live in the Arctic.

"China commits to Arctic protections," Jiliang Chen, China Dialogue Ocean, 5 February 2018 [32] https://chinadialogueocean.net/en/governance/1762-china-commits-to-arctic-protections/#:~:text=While%20actual%20policies%20focus%20on,research%20in%20its%20decision%2Dmaking.

Overview:

China has long been involved in Arctic affairs and has become an important player in the region in recent years. But without a clearly articulated Arctic policy, China's frontline diplomacy has lacked guidance, leading other countries to be suspicious of its intentions on key issues.

China's publication of an Arctic Policy white paper on January 26 will do a lot to resolve these problems. It was welcomed by polar scientists, countries involved in Arctic governance, and interested organizations that have long called for China to stake out a clear position.

Current & Relevant Information:

Protecting the Arctic environment

The white paper expends considerable ink on environmental protection and sustainable development, with the following highlights:

1. China is promoting a global, rather than regional, approach to the Arctic.

Given the importance of climate change on the Arctic, the white paper refers several times to ideas such as "the overall interests of international society" and "the shared

fate of humanity". While actual policies focus on international cooperation on climate change, developing renewable energy in the Arctic, and actively participating in global governance of the Arctic.

2. "Understanding the Arctic" is the foundation of all policy, which means China will rely on scientific research in its decision-making.

Late last year five Arctic nations and five other nations, including China, agreed to a moratorium on fishing in international Arctic waters. The idea behind the agreement was to carry out a survey and research, so that any future commercial development would have a scientific basis. This cautious approach is unprecedented in global fisheries management.

3. China wants citizens to participate in Arctic affairs.

This includes creating a center for people to learn about the Arctic, and describing a "low-carbon, eco-friendly and responsible" approach to developing tourism. During the Antarctic Treaty conference last year, ten Chinese travel companies launched an initiative on responsible Chinese polar tourism, based on the understanding that responsible tourism can build links between the Chinese people and the Poles, inspiring them to help protect both the Poles, climate, and enrich China's participation in polar governance.

Polar worries

Although the white paper covers protection of the polar environment, it is not time to celebrate yet. There are still concerns about development and climate risks, and respecting the wishes of native peoples.

Some Arctic nations have welcomed China to the Arctic governance "club", in large part because they are keen to develop the region but lack the resources to do so. China's participation may bring to the table much needed investment in oil and gas exploration and infrastructure building. The white paper makes no effort to hide China's interest in the region's economic development, which seems inevitable.

Although China speaks of raising development standards, the Arctic has its own specific risks and therefore requires extra caution.

In November 2017, a Russian state-owned tanker became trapped in sea ice on the Northern Sea Route and had to be rescued by the Yamal, a nuclear-powered icebreaker. If the ice had crushed the tanker's hull the consequences of an oil spill would have been grave. Such risks will increase as Arctic shipping opens up and oil and gas resources are exploited.

The methane contained in the Arctic permafrost is a climate time bomb. There are 50 billion tons of methane, in the form of hydrates, on the Siberian Arctic continental shelf. When the sea bed warms, either gradually or suddenly, within the next 50 years, that methane is likely to be released.

More methane in the atmosphere means faster global warming, which will further accelerate warming in the Arctic, increasing the rate of sea ice loss, reducing reflection of solar energy and leading to faster melting of the Greenland ice cap. Glaciers distant from the Arctic will also melt. This vicious circle is irreversible. So far, there is little to no discussion about how to mitigate the effects on the Arctic.

Finally, while the white paper aims to "respect the culture, traditions and interests of the native peoples", this may prove difficult in practice.

The 2011 Circumpolar Inuit Declaration on Resource Development Principles in Inuit Nunaat gives the Inuit people the right to be informed and heard when decisions on resource development are being made and requires their agreement before development takes place. That means resource projects will have to work carefully with the Inuit, and any project may face criticism for "damaging local traditions".

In the past, local traditions have also been in conflict with environmental protection.

In 2009, the European Union (EU) bowed to pressure from animal protection groups and banned the trade in seal fur. Canadian Inuit groups, fearing this would damage their traditional seal hunting practices, sued the EU. In 2011 the General Court and the EU Court of Justice rejected the suit, which had been brought by 17 Inuit groups, including the ITK, Canada's biggest Inuit group. This case shows how the rights of native peoples are not always aligned with those of environmental protection.

Overall, China's white paper indicates the country will take an open and active approach to participation in Arctic governance. This may speed up development of the Arctic, but China's ideal of a "human commonwealth" and its contributions to scientific research and governance in the Arctic can strengthen international society's response to the grave challenges it faces.

"Chapter 8: Asian States in Arctic Affairs," Heather Exner-Pirot, sju.ca, 2016 [33]
https://www.sju.ca/sites/default/files/2016-heininen-nicol-climate-change-hum-sec-northern_4.pdf#page=123

Overview:

The past decade has witnessed a surge in interest in the Arctic, as global warming trends make oil, gas and shipping routes in the region more accessible. In essence, a 'new' ocean – one that for all intents and purposes has been confined from significant human activity until the past decade, has been opened, and with-it enormous potential for resource development and transportation.

Predictably, the newly accessible Arctic Ocean has attracted the interest of a number of Asian states, in particular China, South Korea, Japan and India, who have large populations and a growing need for resources. Perhaps also predictably, the five littoral states of the Arctic Ocean (Canada, Denmark, Norway, Russia, United States) are seeking to limit the influence of non-Arctic states in establishing the

parameters of its use. International law supports their right to do so. However, the development of the Arctic and its many resources need not be exclusive. In fact, there is much to gain by working cooperatively on developing mines, shipping routes, infrastructure and a regulatory framework that serves all stakeholders' needs, from those of local residents to those of foreign states.

This chapter examines 1) the interests of the Asian states in the Arctic, 2) the role of Asian states in circumpolar affairs, and 3) the possibility for cooperation in the economic development of the region.

Current & Relevant Information:

Scientific

India, China, Japan and South Korea have been involved in polar research for many years, and their scientific interests in the Arctic and Antarctic precede the current geopolitical activity. All four have established research stations at NyÅlesund, an Arctic research base on the Norwegian Arctic Archipelago of Svalbard. All four are also signatories to the Antarctic Treaty System.

Polar research covers a wide spectrum of activities; however global warming and climate changes have increased Arctic research efforts from non-Arctic and non-European states in recent years. While some commentators have painted Asian research in the Arctic as a kind of Trojan horse for economic and political positioning, Asian research in the Arctic is genuine, legitimate and of broad scientific benefit.

China, Japan and South Korea have acquired in the past decade that are "[raising] eyebrows among members of the Arctic Council" are designed solely for scientific research. China's Xuelong icebreaker, often touted as "the world's' largest non-nuclear icebreaker," is a Ukrainian cargo vessel that was bought and modified by China in 1993 to support its polar research. Its icebreaking capacity is "insufficient", which is why China has commissioned a more powerful icebreaker, yet to be named, with an expected delivery date in 2014. The majority of the Xuelong's expeditions have been conducted in the Antarctic. Japan's newest icebreaker, the Shirase, was completed in 2009, and replaced the icebreaker of the same name after the original Shirase ended its 25-year run. Like its predecessor, it is being used to support Antarctic research and has not yet made any visits to the Arctic. South Korea also recently commissioned a new icebreaker, the Araon, which was launched in 2009. Korean polar research will be focused on developing a second base in Antarctic for the next few years, however the Araonis expected to travel each year to both the Antarctic and Arctic. Finally, India has ordered an ice capable research vessel dedicated to polar expeditions, which is due to be launched in 2012.

The point is that there is nothing suspicious, or even particularly new, about Asian interest in polar research. Although there has been a recent increase in Asian

interest in Arctic research, this is true of most countries, and a reflection of sustained political and scientific interest in global warming.

Possibility for Cooperation

One concern seems to be that China's worst behaviors in Africa will be replicated in the Arctic. This includes low wages and lax labor standards, the importation of Chinese workers to the detriment of local residents, and poor environmental safeguards. This behavior is problematic, but often exceptional, in Africa. However, it is wholly unlikely in most of the Arctic: aside from Russia, environmental and labor standards are very high, even world class, and the promise of capital investment is not enough in Canada, USA, and the wealthy Nordic countries to bypass existing legal arrangements, especially on indigenous lands. By contrast, the regulatory framework in Canada's territorial North, as an example, is so stringent it is detrimental to new investment, with layers of aboriginal, territorial, federal, environmental stipulations needing to be satisfied before development can begin.

On the other hand, opinion is deeply split as to whether and how to welcome it, and many remain suspicious of Chinese overtures. It seems that although the possibility for mutually beneficial cooperation exists, Arctic states and their people are struggling to find it.

Conclusions

As the Arctic is transformed by global warming and resources and shipping routes become increasingly accessible, Asian interest is expected to increase. This is unlikely to result in significant tension or conflict. But like any new relationship, it must be managed carefully. What can be expected with regards to Asian interests in Arctic affairs in the future?

The Arctic Five have a legal lock on the Arctic Ocean, from their 200-mile Exclusive Economic Zones (EEZs), where most of the recoverable oil and gas is expected to be found, to their extended continental shelf, which will likely eat up almost 90% of the ocean's seabed. Arguments from China, Japan and other countries in favor of treating the Arctic Ocean as a common heritage of mankind akin to the Antarctic are not likely to go far. As such, Asian states might influence, but will not direct, Arctic policy.

Practically this may not be as significant as some Asian commentators fear. Regulation in the region, whether it be on shipping, fishing, or environmental issues, is increasingly multilateral and non-discriminatory. Thus, Asian activity in the Arctic will be subject to the same limitations as those of Arctic states. The sooner regional governance arrangements are articulated, for example with the International Maritime Organization's (IMO) Polar Code on shipping, the sooner Arctic and non-Arctic states will invest in the infrastructure and assets needed to capitalize on the newly accessible Arctic. Arctic regional governments are more likely to compete for

Asian investment than ostracize it, as public policy increasingly trends towards large scale resource development as the avenue for northern development. The Arctic is vast and underdeveloped; Asian investors will likely find many willing hosts. The challenge will be in ensuring local and national regulations are followed and enforced, but this is something the cautious Chinese will be likely to respect rather than try to bypass – one poor outcome could damage their reputation in the region for years.

As to China, Japan, and South Korea's applications to be observers on the Arctic Council, one must wonder what the fuss is about for Russia, Canada and the United States. As it stands, observers have next to no say on Arctic Council matters, but tend to sit mute through the proceedings until one of their cohort addresses the Council on all observers' behalf. The Arctic Council member states are the only parties with votes, and at any rate make political decisions based on consensus. Additional observers are unlikely to detract from the influence of current members. Norway, Iceland and Denmark have been vocal in their support for Asian inclusion in the Arctic Council, a break from the tradition of keeping Council discussions 'in the family'; thus, it seems likely to be a matter of time before they are admitted. One might also expect the Asian states to come forward with their own Arctic policies in the near future, highlighting concern for the environment, respect for indigenous peoples' rights, interest in sustainable resource development, a well-developed shipping regime, and promotion of international cooperation. A number of Asian commentators have already called on their governments to do so.

It has been said that the Chinese character for crisis is the same as that for opportunity. Arctic and Asian states are now at a crossroads in determining which perspective they will adopt with regards to future cooperation in the region. Inasmuch as gains can be made on both sides, stakeholders will likely see increasing Asian interest as an opportunity.

"What Happens in the Arctic Does Not Stay in the Arctic: An Assessment of Climate Cooperation between China and the European Union in the Arctic Region," Arianna Rovaris, University of International Relations Aalborg University Denmark, 2019 [34]
https://projekter.aau.dk/projekter/files/304714814/Arianna_Rovaris_CIR_Master_Thesis.pdf.

Summary:

During the last few decades, the world has witnessed a radical change in its weather patterns, such as the increase of the average temperatures, desertification, glacial reduction, pollution of the oceans, and threats to the life of flora and fauna. The rise in the global temperatures is known as global warming, and it is caused by the increase of greenhouse gas emissions in the atmosphere.

The detrimental effects of climate change are especially visible in the Arctic, as in the last few decades the Arctic average temperatures have risen at more twice the global average, causing the fast melting of its ice cap. The consequences of climate change in the Arctic region affect the entire globe and cannot be ignored; thus, it became imperative for nations to acknowledge the severity of the situation and the need for a global response to it, to address the issue globally and increase the number of actors involved in Arctic affairs and its environmental protection.

Climate cooperation between China and the European Union started in the 1990s and intensified especially after the United States' withdrawal from the Paris Agreement, giving space to China for joining the European Union as a global climate leader. The two parts have established various bilateral and multilateral mechanisms to cooperate for tackling climate change, and have implemented domestic measures to reduce their negative impact on climate. Even though cooperation between China and the European Union within global climate governance may be said to be successful, however there are not specific measures for addressing climate change in the Arctic.

The melting of the Arctic ice is opening opportunities for new shipping and trade routes, as well as for the exploration and exploitation of untapped energy resources. The potential economic benefits resulting from the warming Arctic are attracting an increasing number of actors, among them China and the European Union. Given the two actors' vested interests in the Arctic region, it seems that they are striving to find a concrete way to work together for tackling climate change in the Arctic while securing their respective interests.

Climate cooperation between China and the European Union is analyzed through the theoretical framework of Robert Keohane's Neoliberal Institutionalism. Its focus on the role of institutional regimes in shaping and framing actors' behavior in their foreign policies, helps define how China's and the European Union's decisions and actions are influenced by their membership in international institutions, such as the climate policy regimes and the Arctic institutional framework. Therefore, the thesis investigates how China and the European Union cooperate internationally on climate issues, and then the research is narrowed to their cooperation in the Arctic governance and environmental protection, to testify to what extent they cooperate for climate issues at the global level and at the Arctic regional level. Moreover, the research attempts to explain how China's and the European Union's vested economic interests in the region affect their cooperation, and how the Arctic institutional regime influences their relationship and foreign policy behavior.

The thesis aims at giving a contribution to the existing literature addressing this topic, which has not been vastly investigated yet, by revealing the reasons behind China's and the European Union's problematic cooperation on climate issues in the Arctic given the presence of common interests and commitment to fight climate change and protect the environment.

Current & Relevant Information:

Introduction

During the last few decades, the world has witnessed a radical change in its weather patterns, such as the increase of the average temperatures, desertification, glacial reduction, pollution of the oceans, and threats to the life of flora and fauna. The rise in the global temperatures is known as global warming, and it is mainly caused by the increase of GHG emissions in the atmosphere.

Climate change in the Arctic region is not something new, and in the last few decades the Arctic average temperatures have risen at more twice the global average, causing the fast melting of its ice cap. This phenomenon is believed to generate profound consequences both within the Arctic climate system and the global one. The Arctic may be considered as the “tip of the iceberg of global climate change”, as it is connected to the global climatic, environmental and political processes and systems (Keil & Knecht 2017: 3, 4; Cavazos-Guerra et al. 2017: 231; Féron 2018: 85).

The title of this thesis comes from a speech held by Vidar Helgesen, the Norwegian Minister of Climate and Environment, during a seminar organized by the NATO Parliamentary Assembly and the Norwegian Parliament in Svalbard in 2017. His words clearly explain how the consequences of climate change in the Arctic region affect the entire globe and cannot be ignored; thus, it became imperative for nations to acknowledge the severity of the situation and the need for increasing the number of actors involved in Arctic affairs and its environmental protection (NATO-PA 2017).

International climate cooperation started in the 1990s, when the UNFCCC was founded in 1992. This organization aimed at keeping the level of GHG emissions in the atmosphere at a lower level through international cooperation. Up to date, its membership is almost universal. Since the UNFCCC establishment, there have taken place many international climate negotiations and agreements, leading up to the 2015 PCA, which represented a landmark in global climate discourses. The Arctic is not explicitly mentioned in the PCA, however the convention preceding the agreement, the UN Climate Change Conference (COP 21) held in Paris, has helped to grow awareness regarding climate change in the Arctic region (Keil & Knecht 2017: 1).

In the past decades, and especially after the US’ withdrawal from the PCA, China has emerged as a responsible power and a global climate leader together with the EU. However, even though its role in climate governance is praised in the international arena, its commitment to climate issues has been questioned by some. China has shown a great interest in the Arctic, and since 2013 it holds an observer role in one important Arctic governing body, the AC. On January 26th 2018 the country stated its official positions and interests regarding the Arctic region through

the issue of the first China's Arctic Policy White Paper (Graczyk et al. 2017: 131; State Council Information Office of the PRC 2018).

Since the 1990s, the EU has developed its climate policy together with the international one, and has always maintained a leading role in climate governance and environmental protection. Unlike China, its application to the AC is still pending because of a lack of unanimity within the Council's members. Among the reasons behind Arctic States' reticence in granting the EU an observer status, there is the Canadian opposition to the 2008 EU's approval of a ban on the trade of commercial seal products, as well as the Russian discontent with the sanctions imposed by the EU after the annexation of Crimea in 2014 (Depledge 2015). However, the EU contributes to the governance and the environmental protection of the Arctic region through other means and has begun to develop its Arctic policy since 2008. Three of the EU's Member States are permanent members to the AC, namely Denmark, Finland and Sweden, and other Member States hold the role of formal observers to the AC; the Union confines with the region and has vested interests in cooperating in Arctic affairs other than for climate issues (Graczyk et al. 2017: 132; Arctic Council 2018).

Climate cooperation between China and the EU started in the 1990s and intensified especially after the US' withdrawal from the PCA, thus giving space to China for joining the EU as a global climate leader. The two parts have established many mechanisms to cooperate for tackling climate change, and are essential actors in the setting of the global climate agenda. However, given the vested interests of both actors in the Arctic, it seems that they are striving to find a concrete way to work together for tackling climate change in the region.

The purpose of this thesis is the investigation of the reasons behind the paradoxical relationship between China and the EU when it comes to climate cooperation in the Arctic region.

Conclusion

This thesis has sought out to identify the reasons behind the problematic cooperation between China and the EU in addressing climate change in the Arctic region. China and the EU have been selected as case studies for the analysis because they are currently leading global climate governance, and they are increasingly involved in Arctic affairs. In the Arctic, they both advance a policy emphasizing environmental protection and sustainability, and they are both committed to fight the Arctic climatic change. Other than environmental issues, the two actors are interested in cooperating in the Arctic because of the potential economic opportunities in the region, such as oil and gas resources or the opening of new shipping and trade routes in the Arctic Ocean, as well as the Arctic new geopolitical and geostrategic implications.

The thesis has presented an overview of climate change in the Arctic and its implications, as well as the governance framework of the region, and the main actors involved. The introduction to the Arctic climatic change and its governance framework has been relevant for the subsequent analysis in pursuance of delineating the context within which China and the EU are involved.

The thesis has proceeded with the analysis of China-EU cooperation in the context of global climate governance, which determined that, despite the former divergences in their approaches to the fight against global warming, global climate cooperation between China and the EU may be said to be a success.

For the sake of narrowing the research to China-EU cooperation for tackling climate change in the Arctic region and unveil the reasons behind their behavior, the thesis has presented the two actors' respective historical engagement with the region, their Arctic policies, and their interests in the Arctic. The thesis has moved to the analysis of their engagement with climate change in the Arctic, focusing on their cooperation within the Arctic institutional framework, their bilateral and multilateral climate cooperation, as well as the potential conflictual issues and interests in the region.

Neoliberal Institutionalism's focus on the role of institutional regimes in shaping actors' behavior proved to be useful in defining how the Arctic institutional framework may influence China's and the EU's behavior and policy decisions, as well as their mutual perception and cooperation. The theory proved to suit well for the analysis of international cooperation under climate policy regimes and institutional frameworks. Institutional regimes may be considered necessary for dealing with climate issues, and as the Arctic climatic issues affect the climate systems of the Earth, thus there is the need for cooperation between actors from all around the globe. Cooperation may be difficult to achieve in the absence of regulating mechanisms, thus institutional regimes act as forums which gather more actors together and facilitate cooperation. States are believed to be self-interested actors trying to pursue their interests, however, through institutions, they may decrease uncertainty and increase trustiness in each other's commitment to the agreement. The actors' behavior has been examined through the theoretical foundation of the thesis to attempt to provide a logical explanation of the dynamics and the reasons motivating their actions. Finally, the last chapter has summarized the main findings and assessed the research questions posed in the Introduction.

The analysis has revealed that China and the EU present differences in their policies towards environmental protection, climate change, as well as indigenous people's right. Moreover, they may have problems of mutual misperception, as the EU might perceive China as a potential rival (the so-called 'China threat'), and China on the other hand may see the EU as opposing to the Chinese development in order to safeguard the Union's interests. In addition, the EU is divided in its attitude towards the BRI and the Polar Silk Road, as this initiative may bring great economic opportunities to some Member States, while creating economic disadvantages for

others, as well as damaging the environment and contributing even more to climate change.

China and the EU are both strongly committed to the fight against global warming and are currently leading global climate governance. They have implemented domestic measures to cut emissions and pursue sustainable development; moreover, they have established various bilateral and multilateral cooperating mechanisms for combating climate change. However, it might appear that they are striving to find a way for concretely cooperate in the Arctic. This may be due to the presence of substantial conflicting geopolitical, geostrategic and economic interests in the region, as well as it may be caused by the constraints of the Arctic institutional regime which frames and influences their actions.

It may be suggested that China, the EU, and the Arctic States might need to find a method for balancing the pursuance of their economic interests in the region, with the promotion of the sustainable development of the Arctic. The geopolitics of the Arctic is an evolving process and it may likely undergo many changes and witness the creation and establishment of a new Arctic order with the involvement of more actors in the decision-making and policy-making processes. It is yet to be seen whether China and the EU will be part of this new potential order, and whether they might be able to establish a concrete cooperating mechanism and a set of norms for establishing measures specifically targeting the Arctic climate change and environmental protection, while continuing to pursue their interests in the region.

"Why China Needs an Arctic Policy 2.0," Nengye Liu, The Diplomat, 22 October 2020 [35] https://thediplomat.com/2020/10/why-china-needs-an-arctic-policy-2-0/

Overview:

It is time for China to shed light on which kind of order it would like to construct in the Arctic using its rising power.

On January 26, 2018, China published its first ever Arctic Policy White Paper. The publication of China's first Arctic policy was largely a response to international calls for transparency about China's policy goals in the Arctic. It is a well-written document, and assures the Arctic states that China will follow existing international law applicable in the Arctic, so as to pave the way for China's expanding presence in the region.

Current & Relevant Information:

Nevertheless, nearly three years later, it is sad to say that the traditionally low-intensity, more cooperative Arctic is gradually becoming an arena for geopolitical competition between the United States and China. U.S. Secretary of State Michael Pompeo slammed China repeatedly during the 2019 Arctic Council Ministerial Meeting in Rovaniemi, Finland, warning about China's challenge for the region. This was accompanied by the Trump administration's approval to build more polar ice-

breakers in 2020. In the meantime, China is becoming more and more active in the Arctic, such as opening up a new science observatory in Iceland in 2018, hosting the first Arctic Circle China Forum in Shanghai in May 2019, sending its second ice-breaker to the North Pole in 2020, and investing heavily in the Yamal LNG Project.

Why is U.S.-China competition intensifying after China published its Arctic policy? And why are concerns still being raised by other Arctic states about China's intentions in the Arctic? Is it just because the Chinese regime cannot be trusted? I believe the reason goes deeper. Most suspicions about China's role in the Arctic stem from the concern that China may break the rules. For example, even though most parts of the Arctic are already under national jurisdiction, it is popular to theorize that China would blatantly violate the United Nations Convention on the Law of the Sea (UNCLOS) and turn the Arctic into another South China Sea with extensive maritime claims.

The root of anxieties from Arctic states regarding China's rise, which they may or may not be conscious of, is not about rules at all, but order. The existing rules-based order in the Arctic, underpinned by UNCLOS, has a hidden power structure. Within this power structure, the Arctic states take the drivers' seat or "stewardship" role in governing the region, which should of course be the case. A rising China, a major power from outside the region, will inevitably shake the existing power structure. A shifting order may then be legitimized by the future development of international law.

This is already happening. For example, although the Arctic Council, where only the eight Arctic states have voting power, is the most important regional forum for cooperation, in the negotiations of the 2018 Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean (CAO Agreement), China was invited as a equal partner. This is because of China's status as the world's largest distant water fishing state. Without China's participation, a legally binding instrument about fisheries in the Arctic high seas would not be most effective.

Therefore, as long as the Chinese economy keeps growing, and China continues to rise in the Arctic, suspicions, concerns, and push-back will remain, no matter how hard China may defend itself. This is why I am calling for China to start thinking about adopting an Arctic Policy 2.0. The 2018 Arctic Policy has done its job to justify China's interests in the Arctic. Nevertheless, China now needs a new Arctic policy to elaborate its vision for the future governance of the Arctic – a vision that is not narrowly about China's national interests, but truly about how China would contribute to build a better future of the Arctic. Below are two points to be considered for China's potential Arctic Policy 2.0.

First, climate change is a major concern in the Arctic and a key justification for China to get involved in Arctic affairs. Indeed, the Arctic is suffering from human-induced climate change and witnessing fast melting permafrost and a collapsing ice shelf. In the meantime, China is the world's largest greenhouse gas emitter, while facing

significant challenges caused by climate change as well, such as extreme weather. China's 2018 Arctic Policy vows to address climate change in the Arctic and to protect its vulnerable environment, but details are missing. In 2020 during the United Nations General Assembly, Chinese President Xi Jinping announced China is committed to be carbon neutral by 2060. This is a very ambitious move for tackling climate change. How would this impact the Arctic? Which kind of projects in China's "Polar Silk Road" may help achieve this ambitious goal? Would Chinese investments in Arctic resources development conflict with China's roadmap toward zero GHG emission? These are core questions that require some clarification in China's Arctic Policy 2.0.

Second, sustainability is another key issue for the Arctic future. China has been emphasizing the need to achieve a balance between economic development and environmental protection in the Arctic. This is reflected in the CAO Agreement negotiations, where China talks about "rational use." Like the term "sustainable development," however, "balance" is a word subject to potentially opposing interpretations. What exactly does China mean by balance? This is not only about high sea fisheries, but about almost all Chinese activities in the Arctic. Given the Arctic's vulnerable ecosystem, it would be expected that a balance between use and protection should be shifting toward the environment.

In short, I believe it is time for China to begin preparing a Arctic Policy 2.0, in order to shed light on which kind of order China would like to construct in the Arctic using its rising power. If China, the world's second largest economy, can deliver a vision based upon a re-imagination of the human-nature relationship, with support of a concrete plan, it will not only help drive the Arctic toward a peaceful and sustainable future, but also benefit China's own rise in the region.

"A blessing or a curse: China's Arctic involvement and its environmental policy to prevent further climatic change and pollution," Yaohui Wang, Research Square, 5 July 2023 [36] https://assets-eu.researchsquare.com/files/rs-3116054/v1/ff33c637-483a-422e-ac36-173a2da07cd9.pdf?c=1697495508

Abstract:

The protection and sustainable use of environmental resources is one of the most salient tasks in Arctic regional governance, given that the region is a particularly fragile zone threatened by global warning and polar pollution. In recent years, as the People's Republic of China has significantly increased its economic presence in the High North, whether and how Beijing's Arctic engagement has influenced its efforts to prevent further climatic change associated with global warming and the accumulation of toxic substances are particularly important questions in the study of Arctic politics and global environmental governance. Borrowing insights from the costly signaling literature, this article presents an investigation of these questions. Contrary to the popular "Western-based" perspective that Beijing's Arctic

involvement will inevitably exaggerate human-induced environmental hazards, I argue that China's pursuit to integrate itself into Arctic affairs and foster a responsible great power image actually incentivize it to pledge more ambitious environmental policies as a costly signal to demonstrate that the rising power is willing to adhere to the Arctic's existing norms and rules instead of challenging the status quo. Thus, China's engagement can contribute to environmental governance and sustainable development in the Arctic region. Relying on a set of time-series error correction models and ordinary least-square regression models, the analysis shows that China's Arctic engagement is positively correlated with its environmental policy stringency. Taken together, these findings advance our understanding on the implications of understudied state actors for Arctic sustainable development and environmental governance, suggesting that the international community can benefit from accepting China into the Arctic instead of pushing it away from the circle.

Current & Relevant Information:

Introduction

Ever since the new millennium, Arctic environmental governance has become an increasingly hotly discussed topic in both scholarly and policymaking circles. In a human civilization whose history, continuation, and flourishing are made possible by fossil fuels, the Arctic region and Eurasia which possess vast reserves of commercially valuable mineral resources naturally become the focus of a large number of nation-states, international organizations, multinational corporations, development banks, indigenous peoples, along with other political and societal entities. Importantly, the Arctic supplies the global market with roughly 10 percent of petroleum and 25 percent of natural gas, primarily from its onshore sources. According to a 2008 U.S. Geological Survey, it is claimed that "the total mean undiscovered conventional oil and gas resources of the Arctic are estimated to be approximately 90 billion barrels of oil, 1,669 trillion cubic feet of natural gas, and 44 billion barrels of natural gas liquids". Concurrently, the Arctic happens to be a particularly vulnerable zone threatened by climate change and polar pollution. The ongoing increase in average air temperatures near the surface of Earth manifests the Arctic three to four times faster compared to other parts of the world. Summer-time Arctic ice is currently melting at an unprecedented speed and is estimated to disappear completely in ten years from today. The polar ecosystem which are mostly composed of barrens, tundra, and waters, is extremely delicate with longer recovery span. Over the past several decades, consequences of economic development including the unprecedentedly rapid rise of global average temperature, increasingly frequent extreme weather events, the unregulated release of pollutants into the air and the ocean, have caused significant detrimental effects on the Arctic's ecosystem health and biological variability, resulting in catastrophic environmental issues such as Arctic amplification and polar ice melting.

In the context of global environmental changes and the urgent task to protect the Arctic region from worsening climate conditions, the rise of China and its increasing economic presence in the High North are one of the most popularly-debated issue surrounding Arctic regional governance today. As a younger, less-known, but salient non-Arctic state, the implications of the PRC's Northern outreach on Arctic international security and great power politics have become the focus of countless op eds in major media outlets like the New York Times, the Washington Post, and the Wall Street Journal. Meanwhile, the challenges of sustainable development and the role of different actors (nation-states and international organizations such as the European Union or the Arctic Council, for example) are also the focus of a considerable amount of growing academic research. However, despite it is widely acknowledged among scientists that human industrial operations profoundly affect the world's environmental and meteorological systems, from little to no scholarly works have been conducted to empirically examine whether and how China's active engagement in the Arctic influences its environmental policy practices. In other words, does Beijing's pursuit to integrate into Arctic regional governance promote or undermine its commitment and effort to sustainable development and environmental protection? Given that the prevention of further global warming and the sustainable use of environmental resources are one of the most important issues in both Arctic regional governance and Chinese foreign policy, these questions remain surprisingly overlooked by scholars. Importantly, if the Asian power's attempt to integrate itself into Arctic affairs motivates it to direct more resources into the international collaboration which aims to tackle the ongoing climate crisis, the Arctic can benefit from encompassing more actors despite their heterogeneous political institutions. Moreover, environmental collaboration can consolidate and foster diplomatic, political, and entrepreneurial networking, augment understanding and trust across different actors. If, however, the oppositive proves to be true, there may be increasing confrontation in this already fragile icy-land due to the perils of prioritizing economic development and economic benefits over global environmental values (GEV). Nevertheless, we presently have no indication of how China's massive Arctic outreach influenced its commitment to sustainable development, in particular its environmental policy-making.

To engage with this research gap, I borrow insights from the costly signaling literature to propose a theoretical explanation for how Beijing's expanding presence in the Arctic region can promote its efforts to facilitate environmental protection and sustainable development. Geographically, as a rising power which locates in the East Asian region, China does not have any territorial jurisdiction in the Arctic circle. Hence, notwithstanding Beijing accrediting itself as a "near-Arctic state" as well as an "important stakeholder in Arctic affairs", its participation in Arctic regional affairs can only be achieved through cooperating with conventional Arctic states such as Russia, Canada, Norway, Finland, along with other stakeholders. As such, it is unlikely that the Chinese government would intentionally seek to antagonize these conventional Arctic states by attempting to induce a profound shift in the status quo.

Instead, a more plausible strategy is that the PRC seeks to consolidate itself into the existing Arctic regional governance structure through adapting to the existing rules and norms, despite these are typically Western-established and -centered. Concomitantly, China's willingly adaption to the Arctic region's current system/order/rule/norm may incur some non-trivial costs for itself. Such costs stem from the fact that most (if not all) conventional Arctic countries are skeptical about whether the rising power harbors ill-meaning intentions behind its Northern outreach. For this reason, what the Chinese government needs is an approach to demonstrate that it does not seek to unilaterally exploit conventional Arctic countries by taking away their natural resources for its own economic and security interests, leaving those states to face human-induced environmental deteriorations on their own. In reality, a pivotal strategy employed by the PRC to fulfil this function is to raise its level of environmental policy stringency, a costly move to signal that its promise to pledge more ambitious environmental targets and policy actions is truly sincere.

This research makes two major contributions. First and foremost, it suggests that in order to manage the ongoing environmental crisis in the Arctic circle, what is urgently required is not merely a development in meteorological and atmospheric science, but also a solid improvement in the international community's joint effort to implement global environmental values. Specifically, while there is a large and vibrant body of scientific research on the relationship between climatic change and the fragile Arctic ecological system, existing scholarly works fall short of combining science with real-world international relations, struggling to provide a clear political proposal for nation-state actors involved in the Arctic to tackle sustainable development challenges. Importantly, preventing irreversible environmental change is a fundamental public good that governments are entitled to provide to citizens, and the provision of such public good is not simply a scientific issue, but also a policy issue. At present, China has become a significant political actor in Arctic regional governance through its massive commercial activities and vast investments in Arctic scientific research, and this Eastern power happens to be the world's largest emitter of greenhouse gas, producing nearly 30 percent of global greenhouse gases and 27 percent of world's carbon dioxide as of 2022. Apparently, a discussion on Arctic sustainable development and environmental protection without accounting for China's critical role would be incomplete. For this purpose, the article aims to provide a pragmatic political proposal for conventional Arctic states to engage with the PRC and utilize its economic wealth to advance the transnational effort to prevent further Arctic climatic change.

Second, this article presents a not-Western, Chinese perspective on challenges and opportunities in Arctic environmental governance. Presently, despite there are some excellent Western scholars such as Maurizio Marinelli who speak in favor of China's environmental efforts, the mainstream view is that Chinese activities in the High North are essentially less environment-friendly and are always associated with escalating man-made ecological crises, and therefore a more combative policy to

surveil and curtail the PRC's Arctic presence is urgently in need. Here, I posit that the narrative which politicizes Chinese engagement as something linked to pollution, contamination, and global warming can arguable be criticized as ideologically driven. However, I shall also make clear that the priority of this article is not to condemn these popular yet biased misperceptions, but rather, it strives to explain how Chinese stakeholders perceive China's role in Arctic environmental governance, and through what mechanisms they attempt to assure other states that the PRC can contribute to prevent further environmental catastrophes in the region.

The rest of this paper proceeds as follows. First, it expounds upon Beijing's increasing engagement in the High North and the Western-based realist-driven concerns surrounding these activities. Next, I postulate a costly signaling mechanism to articulate how the PRC seeks to assure conventional Arctic actors that its vow to act as a responsible great power, particularly its commitment to prevent further climatic change, global warming, and pollution in the polar region is truly genuine. The following section discusses results from my empirical analyses, which utilize a set of times-series econometric models. Last, this article highlights important findings and conclude remarks. Critically, my research has important implications for both scholars and policymakers.

Conclusion

Environmental protection and sustainable development are increasingly playing a pivotal role in Arctic Regional governance. As a particularly vulnerable zone of the planet, the Arctic environment is facing severe threats from global warming, dwindling biological variability, and the accumulation of toxic substances. These challenges are largely a product of human industrial activities mainly in the distant South but also in the neighboring Eurasia, and partly within the Arctic circle itself. Critically, the substantive effects of climatic change necessitate joint effort from the international society, including both conventional Arctic states and non-Arctic states, nation-states and international organizations, multinational corporations and indigenous peoples. From an ethics perspective, any actor involved in Arctic affairs has moral responsibility to contribute to environmental protections of the High North, addressing the importance of sustainability, and preventing further climatic change associated with global warming. Indeed, the ramification of prioritizing economic interests over global environmental values is visible as in many parts of the world the escalating climatic crises have already caused catastrophic consequences on human societies.

Sadly, despite the consensus that Arctic environmental governance requires international collaboration rather than confrontation, the High North has gradually evolved into an arena for traditional great power competition and contention. In early 2022, the outbreak of the Russian-Ukraine War has torn the Arctic apart and rendered the Arctic Council essentially non-functioning. In this fragile diplomatic zone, China, a rising great power which has increasingly involved in Arctic affairs

over the past decades, stands out as a key player whose behaviors will have profound influence on not only regional security and stability but also environmental well-being. Importantly, how does Beijing intend to balance between its Arctic economic presence and its commitment to tackle global and local climatic changes? Notwithstanding the extensive studies on Arctic environment and Chinese foreign policy, social scientists have not started to pay much attention to this question.

Borrowing insights from the costly signaling literature in traditional security studies, this article investigates the relationship between the PRC's Northern outreach and its effort to sustainable development and climate governance. The analysis yields some highly interesting results. Contrary to the prevailing Western-based belief that China's growing presence, especially its foreign investments in natural resources extractions, will inevitably exaggerate the Arctic's already problematic climate, I suggest that the Chinese government has been attempting to integrate itself into Arctic regional governance in a very careful manner, striving to assure Western stakeholders that the Eastern power does not seek a revisionist approach. Specifically, the theoretical proposition here is that each time Chinese decisionmakers make a major step to engage in the region, they actively raise the country's environmental policy stringency which incurs non-trivial costs on the domestic economy, and therefore signals to foreign audiences that the rising power does not intend to exploit Arctic resources in an unscrupulous and self-centered manner. As such, my research belies concerns of the widespread "China Threat" view among many Western-based observers. In other words, China does not pose a critical threat to Arctic environment. If anything, the opposite appears to be true.

However, this research does not suggest that China's further Arctic involvement will not encounter much pushbacks. From a political science perspective, environmental protection and restoration is merely one dimension of Arctic governance. As considered by many realists, power, security, and strategic influence are in fact the main issues at stake, and global warming can only come as secondary. As Nengye Liu, director of the Centre for Environmental Law at Macquarie Law School, puts famously, "as long as the Chinese economy keeps growing, and China continues to rise in the Arctic, suspicions, concerns, and push-back will remain, no matter how hard China may defend itself". As such, the anxiety regarding China's Northern outreach may in fact continue to increase within the broader context of the ongoing Sino-US peer competition, which mainly took place in the security dimension, but can certainly be intertwined with environmental topics. As such, I believe it is important for both the PRC and conventional Arctic states to prepare for an Arctic Regional Governance Version 2.0, that is, an agenda that explicitly distinguishes between security governance, economic development, and environmental governance. From a Chinese perspective, if Western-based politicians continue to bash China's presence in the High North and condemn that all of its Arctic commercial, scientific, and research activities are strategic and ill-meaning, such reaction can antagonize the Eastern power and incentivizes it to take a much more

combative stance. If this is the case, the Arctic environment is likely to suffer from intensifying great power competition. Therefore, an Arctic Regional Governance Version 2.0 should seek to avoid the politization and securitization of China's Arctic involvement.

5. Potential Detrimental Impacts:

"China in the Arctic: Interests, Strategy and Implications," B.R. Rashmi, Institute of Chinese Studies, March 2019 [37]
https://www.icsin.org/uploads/2019/03/18/2659130d6b316472ca6abedd7afb1381.pdf

Abstract:

Arctic is a region gaining more prominence due to the apparent climate change and the role of extra regional powers. On 26 January 2018, China released a white paper on its Arctic policy, clearly highlighting its intentions and ambitions. While pitching itself as a "near-Arctic state", China vowed to actively participate in the affairs of the warmer Arctic. The white paper underlines "Polar Silk Road", the continuation of the Belt and Road Initiative, a step closer to developing Arctic ports and transportation corridors. While this is a far-fetched project that may not see the fruits of implementation at least in the near future, it sure represents the growing China's twenty-first century ambitions. In this regard, China is developing stronger diplomatic relations with the Arctic states. China's seemingly close relation with a number of Arctic states gives a new dimension to the emerging geopolitics of the region. The recent attempt to build a polar ice-breaker (Xue Long II) and opening bids for its first nuclear-powered ice breaker portrays long-term plans of China to grow into a 'Polar Power'.

Presence of China in the high north sparks two important questions- first, whether China is interested in the militarization of the Arctic or will it confine itself to scientific and commercial interests as stated in the white paper. Second, whether the eight Arctic states are prepared to accept the fact that the region remains no more limited to their reach but is moving towards becoming more global in nature.

The paper has made a modest attempt to explain China's Arctic policy, its interests and implications on the region, demystify the perceptions surrounding the Chinese presence and the infrastructural projects. An attempt will also be made to include various perspectives as well as a theoretical assessment using theories of International Relations.

Current & Relevant Information:

Introduction

The Arctic has been changing dramatically due to rising global temperatures resulting in melting of the sea ice. A warmer Arctic has been attracting the world's attention due to economic and geopolitical reasons. The Arctic Five (Norway,

Russia, Canada, Denmark and United States) and the other three countries in and near the Arctic Circle (Iceland, Finland and Sweden) are staring at possible opportunities such as opening up of the new navigational routes, discovery and utilization of untapped resources. As a result of these developments, Asian countries are leaving no stone unturned to mark their presence in the region. China in particular is undertaking numerous steps to ensure that it grows into a significant player in the Arctic. On 26 January 2018, China released a white paper on its Arctic policy, clearly highlighting its intentions and ambitions. It underlines “Polar Silk Road”, a continuation of the Belt and Road Initiative. It is an initiative to develop Arctic ports and transportation corridors. While this is a far-fetched project that may not see the fruits of implementation at least in the near future, it seems to represent China’s twenty-first century ambitions. China is developing stronger diplomatic relations with the Arctic states. China’s seemingly close relation with Russia, Iceland and Denmark (through Greenland) gives a new dimension to the emerging geopolitics of the Arctic region. The recent attempt to build a polar ice-breaker (Xue Long II) and opening bids for its first nuclear-powered ice breaker portrays its long-term plans for the region (China Launches Icebreaker Xue Long 2, 2018)

China is seen as a rising power having developed diplomatic relations with a number of countries across the globe. China over the years has developed a very capable armed forces, economic prowess and led by a very strong leadership. China’s aspiration to be seen as the world leader gets reflected in their fundamental goals. Hence, their move and presence in every region including Arctic has raised debates among the members of academic and strategic community. It is, therefore, necessary to study China’s role in the High North in the backdrop of climate change and the dynamics of emerging geopolitics in the region. Whether China’s increasing influence will have implications both for the region and the shifting world order remains a part of the discussion?

The paper has made an attempt to analyze China’s proactive role in the Arctic by using deductive and analytical method and also assessed the relevance of the theories of International Relations and Geopolitics. Both qualitative and statistical data collected from primary (Arctic Council Documents and the stated policies of the countries that have a role in the Arctic) as well as secondary sources such as journals articles, books, opinion pieces and news articles have been used. A detailed literature survey and interviews have been done to collect adequate information, thereby incorporating different viewpoints on the theme.

The paper has made an attempt to understand whether China’s Arctic Policy has a strategic orientation with a focus on economic approach towards achieving its great power ambitions. The first section discusses the larger geopolitics of the Arctic, which includes the geography of the region, the resources, politics over navigational routes and contesting claims of the Arctic states. The second section focuses on the tangible and intangible “push” factors or the reasons attributed to Chinese presence

in the Arctic. Assessing China's Arctic Policy white paper and its engagement in the Arctic is the highlight of the third section. The fourth section throws light on the Arctic states' responses to China's footprints as well as the implications of its actions for the High North.

Conclusion

The future geopolitical scenario of the Arctic region is bound to see the effects of irreversible climate change. With this comes the exploration of more resources and the discovery of new maritime routes. Russia and Canada will be the biggest players in the region owing to their geographical location, military presence as well their involvement in the activities pertaining to the Arctic. Russia is at an advantageous position, as most of the resources are at present closer to the Siberia and the Northern Sea Route. Canada views itself as a potential player, an attractive hydrocarbon market and hence is investing substantially in the development of the natural resources in the Arctic.

The region is no more confined to the eight states and has moved beyond to include extra-regional powers from Europe and Asia. While on one hand the extra regional powers are seen as an opportunity for the littorals of Arctic, on the other, it is perceived as a threat to their primacy. The Arctic Council is exclusive and is built on the base that the world must accept the sovereignty of the regional states. There are however differing viewpoints which suggest that the shipping routes and the deep seabed resources must be treated as common heritage of mankind. While some states like the USA agree to this, other littoral states like Canada are on the opposite end.

Certain push factors, both tangible and intangible, that are driving China's Arctic strategy can be clearly observed. The lateral expansion of China in terms of its economy requires it to scout for resources that can sustain its humongous secondary sector. While this is the tangible factor, China is looking for the normative gains by calling itself as a 'Near-Arctic State'. Constructing its identity as a great power in the shifting geopolitical order, necessitates its presence in all the regions of the world. Arctic is one of those frontiers where the power play is simmering, yet subtle. Making early investments in this region and capitalizing on the need for new infrastructure in the region, will provide China, the first-move advantage and help it gain a prominent place in the agenda setting process.

China's approach to the High North has primarily used economic tools. It entered the realm of Arctic on the pretext of being affected by the climate change, conducting scientific studies and gradually shifted its focus to resource exploitation and building of infrastructure. Identification of necessities of different countries and investing heavily in developing them, is the core of China's Arctic strategy. Through its value-adding actions, it is ensuring that the states or particular region in a state find it compelling to have China on board. As President Xi Jinping put-forth in 2014, China

desires to become a polar power, having a say in the Arctic affairs and thereby leaving no stone unturned to reach its target of being recognized as a great power. Its strategies, actions and diplomatic skills holds the hypothesis proving to be true.

"China's Push-in Strategy in the Arctic and Its Impact on Regional Governance," Matilde Biagioni, Istituto Affari Internazionali, 9 May 2023 [38]
https://www.iai.it/en/pubblicazioni/chinas-push-strategy-arctic-and-its-impact-regional-governance

Overview:

Since the early 2000s, Beijing's interest in the Arctic increased. In 2013, the People's Republic of China (PRC) was admitted as one of the Arctic Council's permanent observers, the main regional forum. The real turning point, however, was in 2018 when China published a White Paper regarding its policy and goals over the Arctic. In the document, Beijing defined itself as a "near-Arctic state" and set out the ambition to launch a Polar Silk Road. An examination of the reasons and strategies underlying the Chinese interest in the Arctic helps understand its possible impact on regional governance dynamics, and how this contributes to making the Arctic a more global environment.

Current & Relevant Information:

The Arctic's untapped potential

In the last two decades, international attention to the Arctic environment and ecology has intensified, increasingly turning its governance into a global issue. In parallel, the enormous potential of Arctic resources has fueled the growing interest of states in the region. The Arctic is home to 13 per cent and 30 per cent of undiscovered oil and natural gas respectively, as well as large amounts of raw materials and mineral resources.

Against this backdrop, the PRC defines itself as a near-Arctic state, first and foremost because climate crisis-related issues in the Arctic have a relevant impact on China. Indeed, research highlights that the melting of Arctic Sea ice has contributed to significant alterations in the Chinese climate (for example, heavy snowstorms in 2007 and 2008 or haze pollution in 2013).

However, China's interest in the Arctic moves from other types of considerations as well. Beijing must expand its energy supply to ensure its economic growth. China's dependence on imported oil is currently over 70 per cent and predicted to increase further in the coming years, while imports account for more than 40 per cent of the country's total natural gas supply. Hence, the Arctic may significantly contribute to Chinese energy security.

Furthermore, the melting of Arctic Sea ice allows China to take advantage of new Arctic Sea lanes, such as the Northern Sea Route, which connects Asia to Europe. This is shorter and less expensive than the conventional Suez Canal route and would provide an effective alternative to China's over-reliance on congested trade through the Malacca Strait and the associated incidents of piracy.

Arctic governance: A strategic matter

The Arctic, however, is not just a high-potential territory, it is a region where states, especially great powers, can exercise influence on discussions concerning global issues (first and foremost, environmental and climate ones).

It is widely acknowledged that Xi Jinping's China strives to be recognized as a great power in the international system by being present in all regions and institutions considered strategic for global governance – including the Arctic Council. As the PRC seeks to become a more prominent player in global governance, four distinct paths for transformation have been identified as possible for Beijing: complier, reluctant member, bystander, and push-in strategy. The most relevant for Chinese-Arctic relations is the latter, which is applicable to the "cases where China is still excluded by the global governing institution in a specific issue area". Indeed, Beijing must conduct push-in initiatives to have a say in Arctic matters. Although China is not a full member of the Arctic Council, its admittance as a permanent observer in 2013 enabled Beijing to pursue push-in measures. It obtained a voice in the decision-making process by gaining the opportunity to speak and propose projects during Council sessions. Since full admission is not possible in the short term, China must follow complementary push-in strategies to augment its status. Therefore, Beijing has developed its own rhetoric on Arctic issues and begun bilateral relations (mainly of an economic nature) with Arctic states.

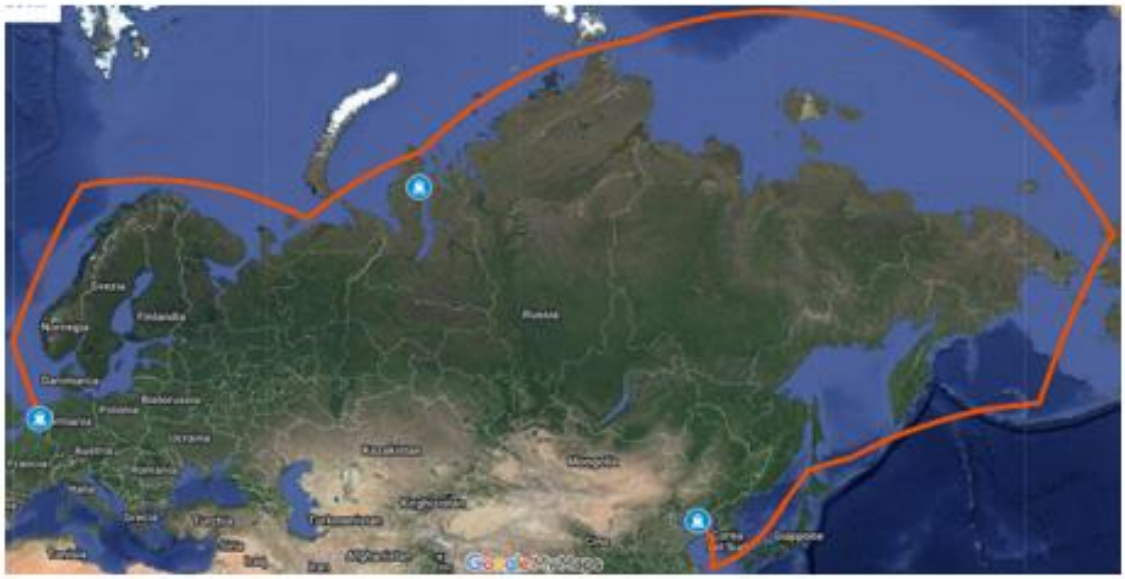
China's Arctic policy

According to the 2018 White Paper, Beijing's political objectives in the Arctic are protecting, developing and participating in regional governance. To achieve these goals, the PRC's Arctic policy commits to respecting and promoting international law as its main priority. Since Beijing is known to be an outsider state in the Arctic, it strategically set itself in a prominent position in regional governance through the international agreements to which it belongs. This strategy has become a rhetorical tool to validate Chinese presence in the Arctic. Already in 2015, at the opening ceremony of the third Arctic Circle Assembly, Foreign Minister Wang Yi held a speech stating that "the legitimate concerns of non-Arctic countries and the rights they enjoy under international law in the Arctic and the collective interests of the international community should be respected". Such rhetoric could be supported by other non-Arctic countries in favour of their interests in the region. This seems to be

India’s case, which following Beijing’s example, published its Arctic policy in 2022. In the document, New Delhi expressed its intention to increase its engagements in the Arctic region and echoed Chinese rhetoric on the need for all parties to respect international law.

As underlined in the 2018 White Paper, another key tool for implementing China’s ambitions in the High North is the Polar Silk Road. This is the Arctic extension of the Belt and Road Initiative and outlines a plan to encourage the construction of infrastructure in the Arctic, such as ports and transit lines. The proposed route goes via Japan, crosses the Bering Sea and the Northern Sea Route over Russia, passes through the Norwegian Sea, and arrives in the Netherlands (Figure 1).

Figure 1 | The Polar Silk Road



China’s bilateral Arctic diplomacy – and the pushback against it

To develop the Polar Silk Road and its push-in into the Arctic affairs, China has developed relations with the Arctic states, above all, Russia, Iceland and Greenland.

Following Western sanctions imposed on Russia due to the Ukraine crisis in 2014, Moscow and Beijing have grown closer as strategic allies, and the Arctic has gradually turned into a long-term cooperation region. Russia is a relevant player in the Arctic Council due to its extent and proximity to the Arctic Circle. After 2014, the PRC started to invest in the Yamal project, a joint venture around a liquified natural gas plant located in the North-East of the Yamal Peninsula, in northwest Siberia. In 2016, Chinese banks loaned 12 billion US dollars to the plant, effectively stepping in as a potential lender and covering two-thirds of the project’s external financing

demands. China's National Petroleum Corporation and the Chinese company Silk Road Fund now have a 20 per cent and 9.9 per cent share in the project, respectively. The Yamal plant is paramount because it is one of the Polar Silk Road's initial projects. It showcases Beijing's commitment to providing logistical support, such as port building and infrastructure in the Arctic; indeed, Chinese engineers have been involved in the development of infrastructure in the Yamal Peninsula, including a Chinese-made polar drilling rig. Moreover, in April 2023, the Russian and Chinese Coast Guard signed an Arctic cooperation agreement to strengthen maritime law and collaborate on joint exercises in the future. In parallel, pre-existing cooperation between Russia's and other Arctic states' coast guards through the Arctic Coast Guard Forum was suspended as a result of Moscow's invasion of Ukraine, boosting the role of Beijing as a strategic partner for Moscow.

Meanwhile, in the wake of the 2008 global financial crisis, China emerged as an ideal commercial partner for Iceland, whose economy had been seriously harmed. The two countries' free-trade agreement signed in 2013 strengthened China's status and influence in the Arctic. This partnership is centered on energy and fisheries. Iceland delivers technology and highly qualified professionals in well-drilling, as well as technical support, while Beijing provides access to one of the largest markets in the world.

Greenland, the closest land to the North Pole, is also an important component of China's Arctic strategy. Its location makes it critical for any state seeking access to the Arctic. Chinese firms have expressed interest in investing in Greenland, especially its mineral reserves, which are becoming more accessible due to climate change. More specifically, a Chinese company established a partnership with an Australian firm to develop rare earth and uranium mining in Kvanefjeld, in Southern Greenland, in 2016.

Nonetheless, China's push-in strategies in the Arctic are also raising concerns in the US. Indeed, in 2019, during the Arctic Council's Ministerial Meeting in Finland, Washington warned the other Arctic states about China's economic and military ambitions over the region. The US Secretary of State Mike Pompeo pointed out the substantial investment of China in the Arctic states – estimated to be at 90 billion US dollars between 2012 and 2017 – and voiced the Pentagon's worries about Beijing possibly using its presence in the Arctic to reinforce its military activity. NATO Secretary-General Jens Stoltenberg shared such concerns, saying that China is expanding its reach over the High North through its "near-Arctic state" declaration, investments and partnership with Moscow. According to Stoltenberg, while the Arctic used to be characterized by low tensions, this is now changing due to its enormous opportunities and the resulting global competition over them. Also as a result of this push-back, some scholars highlight that the Polar Silk Road's future seems now uncertain since there is a significant gap between its stated objectives and concrete

achievements. Indeed, the PRC's projects in the Arctic are suffering from Russia's invasion of Ukraine and Arctic states stepping back: for example, Greenland eventually halted the Kvanefjeld project in 2021.

China and the making of a global space?

Through the first two decades of the twenty-first century, Arctic governance entered a new phase, shifting from a separate territory with its policy agenda to a region with tighter linkages to the rest of the world. Today, notwithstanding the one-year suspension due to Western-Russia tensions related to the war against Ukraine, the Arctic Council is busier than ever because of the presence of China and other observer states, including India, South Korea and Japan. In the future, China's involvement in the Arctic and its attempt to build the Polar Silk Road will present new opportunities as well as challenges to the Arctic governments. As a non-Arctic country, the success of China's Arctic policy will be determined by its push-in strategy, which includes the capacity to deepen regional cooperation, a focus on international agreements and associated rhetorical tools, as well as bilateral and economic diplomacy, and its capacity to deal with the pushback against it. However successful the PRC's strategy in the Arctic will eventually be, it is nonetheless already contributing to reshaping Arctic governance. The same fact that China–US tensions are emerging in the Arctic is evidence of how China's Arctic Policy is contributing to "reframe[ing] the Arctic as a global space".

"The recent backlash against China in the Nordic Arctic: Prospects for future Chinese engagement in the region," Patrik Andersson, Swedish National China Centre, 13 June 2024 [39] https://www.ui.se/globalassets/ui.se-eng/publications/other-publications/the-recent-backlash-against-china-in-the-nordic-arctic-prospects-for-future-chinese-engagement-in-the-region.pdf

Summary:

• Five years ago, China expressed hopes for increased collaboration with the Nordic states in the Arctic. Chinese investments in Nordic mineral resources are still minimal, however, and none of the ambitious infrastructure projects discussed have come to fruition. The backlash against China in recent years has undoubtedly hindered its investment prospects in the region.

• Various factors have fuelled China's Arctic backlash. First, Xi Jinping's authoritarian leadership has heightened Nordic suspicion that Chinese companies serve the strategic interests of the Chinese Communist Party, including its military objectives. Second, China's high-handed foreign policy, notably its "wolf warrior diplomacy", has tarnished its soft power in the Nordic region, leading to diplomatic tensions and harming perceptions of China as an economic partner. Third, geopolitical rivalry with the US has been extended to the Arctic, where US efforts to

counter Chinese influence have raised Nordic concerns about jeopardizing relations with the US.

• In addition, Chinese actors might have exaggerated their Arctic agreements with Nordic partners domestically, triggering a backlash when discrepancies emerge, such as in agreements with Greenland and Finland. These factors have intensified scrutiny of Chinese investments, prompting Chinese companies to reassess the political risks of investing in the region.

• For the foreseeable future, China's position of "pro-Russian neutrality" in relation to Russia's war in Ukraine, European efforts to reduce dependency on China for the supply of critical raw materials and the decisions by Finland and Sweden to join NATO are likely to place further limits on Chinese activities in the Nordic Arctic.

• While Chinese investment in infrastructure and mining is likely to be restricted, there will continue to be opportunities for China to engage in the Nordic Arctic. There appears to be a relatively strong desire among Nordic participants to keep China involved in Arctic governance, in particular environmental governance, and China is a sought-after partner in the Nordic shipping industry. This poses a challenge for the Nordic states: how to sustain and oversee cooperation while simultaneously guarding against security risks.

• In future, Nordic countries' decisions on the feasibility and desirability of cooperation with China will be shaped not only by their own assessments of the benefits and risks associated with specific projects, but also by broader geopolitical factors, including Russia's war in Ukraine and US-China rivalry.

• Recently implemented investment screening mechanisms in Sweden, and the anticipated tightening of such measures in Norway and Finland, will safeguard against potentially harmful Chinese investment. If properly monitored and regulated, Chinese participation in Arctic governance could mitigate environmental risks and enhance maritime safety, while potentially weakening the growing Sino-Russian alliance in the region.

Current & Relevant Information:

Introduction

As China's economic strength grows, so too do its global ambitions. In the past two decades, Chinese resource and shipping companies have expanded their reach into remote and logistically challenging regions, such as the polar regions. In the Arctic, state-supported Chinese companies have invested or sought to invest in infrastructure and raw materials, such as oil, gas and minerals. They are also cooperating with Russian companies on extracting mineral resources in the Russian Arctic, and on developing an Arctic shipping route – the so-called Polar Silk Road – to transport these resources.

While Russia has been a key partner for China in the Arctic, China has sought to engage with all the Arctic countries to advance its interests in the region. Similarly, the Chinese vision for the Polar Silk Road has been to connect both existing and future Arctic maritime routes, as well as ports, railways, airports and other infrastructure projects along those routes. This requires China to work with countries beyond Russia, particularly the Nordic states. However, Chinese investments in the seven Arctic states excluding Russia (the Arctic Seven, A7) have faced a growing backlash in recent years, as western concern over China's Arctic agenda has grown.

The aim of this report is to examine the reasons for the backlash against Chinese activities in the Nordic Arctic, which began several years before Russia's full-scale invasion of Ukraine, and to discuss the prospects for future Chinese engagement in the region.

Various studies have examined China's Arctic investments. Some provide an overview of Chinese activities in the Arctic as a whole, while others focus on specific countries or cases. Studies have noted the controversies and backlash surrounding Chinese investments in Arctic countries and how they have forced China to reconsider its approach in the region. This study adds to existing knowledge by examining the various factors that have fueled the backlash, as well as those that could influence China's prospects for future engagement in the region. It also contributes to a better understanding of how Chinese assessments of and attitudes to investment in the Nordic countries have evolved over time, and how this might affect future developments.

The study draws on a wide range of materials in English, Chinese and the Scandinavian languages, such as policy documents, official statements, newspaper reports and the academic literature. The analysis is focused on but not limited to projects inside the Arctic region. The Nordic countries are all Arctic states, and projects outside the Arctic circle can still have a role in China's Arctic strategy.

Historical overview of China's Arctic activities

Chinese official interest in the Arctic dates to the late Qing Dynasty, when Chinese scientists participated in the first International Polar Year, 1882–83. In 1925, the Republic of China signed the Spitsbergen Treaty, which allows the signatories to conduct commercial activities on Svalbard. In 1993, China bought an icebreaker from Ukraine, which it converted from a cargo ship into a research vessel named Xue Long. The Xue Long made its first Arctic research expedition in 1999.

China opened its first Arctic research station on Svalbard in 2004. The station focuses on glacier monitoring and aurora and atmospheric research. In 2013, China was granted observer status in the Arctic Council, the main intergovernmental forum for discussing sustainable development and environmental protection in the Arctic. In the lead-up to the council's decision, China began calling itself a "near-Arctic state".

In 2014, President of China Xi Jinping (习近平) declared China's goal to become a "polar great power" with a capability equal to that of the United States and Russia by 2030. China published its first Arctic policy white paper in 2018. In the white paper, China announced its intention to develop Artic shipping routes, and to explore and exploit Arctic resources, promising to do so in accordance with international law.

China has participated in the development of infrastructure along the Northern Sea Route (NSR), a shipping corridor controlled by Russia that is located entirely within its Exclusive Economic Zone. The NSR has the potential to cut fuel costs by 20 percent and shipping times by as much as 40 percent for shipments between China and Europe. As of 2023, China was operating two Arctic research stations and two icebreakers, including the fully Chinese built MV Xue Long 2.

China has shown enthusiasm for Arctic connectivity projects, such as the "Arctic corridor", a currently stalled plan to connect the Norwegian Arctic port of Kirkenes with Rovaniemi in Lapland through a new Arctic railway, although no Chinese investment was ever made. An expanded deep-water port in Kirkenes would allow shipping along the NSR. A new railway would connect with the existing Finnish railway system, reaching Helsinki in the south. An alternative proposal is to integrate the Arctic corridor with the standard European rail network in Estonia through an undersea tunnel linking Helsinki with Tallin.

"China's New Arctic Policy: Legal Questions and Practical Challenges," Nong Hong, Maritime Awareness Project, 16 March 2018 [40]
https://www.nbr.org/publication/chinas-new-arctic-policy-legal-questions-and-practical-challenges/

Overview:

China issued its first official Arctic policy in a white paper published on January 26, 2018. The Chinese media and academics were truly thrilled—both by the content of the policy and by the fact that it had been formalized and published—and reacted immediately with overwhelmingly positive reporting and analysis. Meanwhile, the international community, especially the Arctic states, quickly added their views on the white paper.

Of the Arctic five (the five states with a coast inside the Arctic circle), Canada is the most concerned about the white paper's implications. Canadian experts warn that China's Arctic policy is attempting to tread a fine line between respecting the sovereignty of Arctic nations and leaving room to profit from disputes in international law. The white paper's use of language like "respect for international law" is viewed by Robert Huebert from the University of Calgary and Frédéric Lasserre from Université Laval as an attempt to articulate limits on Arctic states' sovereignty. One of the issues that worries Canada the most is whether China will adopt the same legal position as the United States and the European Union: treating the Northwest

Passage as a “strait for international use,” in opposition to Canada’s claim to it as “internal waters.” In fact, this essay shows that the white paper largely avoids this difficult issue, focusing instead on the considerable opportunities and challenges posed by economic and environmental considerations.

Current & Relevant Information:

Other than the long-standing objections raised by the United States and echoed by the EU, Canada’s position has not been challenged by other states that also recognize the importance of shipping through the Arctic. China, Japan, and South Korea, in particular, see the melting Arctic Ocean as a unique opportunity for international trade, which will have a measurable effect on their economies because of their dependence on shipping. In addition, over the past decade a growing number of cruise ships have sought to transit the Northwest Passage.

The positions of China and other non-Arctic states on the legal status of the Northwest Passage and the Northern Sea Route will be crucial for the Arctic littoral states. Sooner or later, non-Arctic states will have to adopt a clear position on whether the Northwest Passage and Northern Sea Route enjoy the status of international waters for navigation, as the United States and the EU hold, or whether they are internal waters, as Canada and Russia insist.

In its white paper, China maintains that all activities to explore and utilize the Arctic should be conducted in compliance with treaties such as the United Nations Convention on the Law of the Sea (UNCLOS) and the Svalbard Treaty, as well as with general international law. However, the white paper does not touch on the status of the Northwest Passage and other straits in the Arctic. On shipping, China expresses a desire “to work with all parties to build a ‘Polar Silk Road’ through developing the Arctic shipping routes.” China encourages its enterprises to participate in infrastructure construction along these routes and to “conduct commercial trial voyages,” in accordance with international law, to pave the way for regular commercial operations. In addition to emphasizing opportunities for commercial shipping, the white paper offers evidence of China’s interest in supporting and encouraging cooperation with Arctic states to develop tourism in the region and calls for concerted efforts to enhance security, insurance, and rescue systems.

One consideration that might weigh against China following the lead of the United States and EU on the Northwest Passage is that doing so would weaken the argument that its own Qiongzhou Strait, between Hainan and continental China, should be considered internal waters. It is worth noting, however, that the status of the Qiongzhou Strait has rarely, if ever, been a matter of debate, while the status of the Northwest Passage and the Northern Sea Route has frequently been contested.

Like its neighbors in East Asia, China sees the melting Arctic Ocean as a unique opportunity for itself and international trade generally. Its recently published white

paper on Artic policy highlights the country's interest in shipping routes through the Arctic, among other interests such as participating in Arctic governance and polar research. On the one hand, the international community, including Arctic Council members, welcomes the transparency and increasing confidence that China shows by participating in Arctic governance. On the other hand, given China's rapid military modernization and economic growth, suspicions regarding its global strategic intentions as it moves toward the Arctic are unavoidable. Canada's concerns about China's evolving position on the status of the Northwest Passage are symptomatic of this dilemma. Thus, a combination of potential economic benefits, unsettled legal issues concerning the navigation regime in the Arctic, and technological and environmental challenges will likely determine the prospects for China's involvement in Arctic shipping.

"Coping with a "Near-Arctic" China," Mischa Longman, University of Calgary, 23 September 2019 [41]
https://prism.ucalgary.ca/bitstream/handle/1880/111088/ucalgary_2019_Longman_Mischa.pdf?sequence=3

Overview:

The purpose of this research project was to explore the implications of an accelerated Chinese interest in Arctic affairs. More specifically, this project focused primarily on the practical effects of this greater involvement in the region for the two largest and most globally influential Arctic states, namely Russia and the United States from a mix of political, military and economic perspectives. In doing so, this project would seek to increase understanding of recent developments in Chinese policy and economic involvement in the Arctic region and how they would influence the behavior of powerful local actors, a topic of some importance and urgency given the historical insularity of the Arctic from outside affairs or actors, as well as the region's characterization as a zone of inter-state cooperation rather than competition. How would China's entry into the region in the form of ambitious policy proclamations and substantial foreign direct investment into Arctic states affect these conditions? Given rising competition elsewhere in the world between the United States and China, the topic of China's entry into the Arctic seems both highly current and fraught with the potential to fundamentally reshape the region's political and economic landscape. Existing regional issues may serve as fault lines which a powerful extra-regional actor could exploit, such as the substantially deteriorated relationship between Russia and the NATO members of the region since the 2014 annexation of Crimea and the resultant weak Russian economy. In studying these issues under the aegis of the larger research question articulated above, this project sought to provide a snapshot of the Arctic's political and economic landscape at a moment of unprecedented outside interest, as well as accurately capture the essence of what trends and tendencies have arisen in Russian and American policy in reaction to these developments.

Current & Relevant Information:

Results

This project revealed a number of interesting preliminary findings on the effects of China's entry into the Arctic region. These will be beginning with the broader context before addressing the specific findings on Sino-Russian and Sino-American relations in the Arctic. The BRI's development was traced from inception to its current ambitions for the PSR, and areas of concern such as the "debt trap" potential by which Chinese loans could be used as economic leverage to achieve ownership of strategic resources were addressed, finding them largely overblown. However, Chinese investment patterns in infrastructural projects such as the Greek port of Piraeus did show some willingness on the part of Chinese state investors to take advantage of an economically-disadvantaged state in order to attain decisive ownership over strategically significant resources. Chinese interest in the Arctic was traced broadly to establishing energy security, given massive domestic energy consumption and ongoing efforts to phase out coal in favor of natural gas, a resource present in great quantities in the Arctic and particularly under Russian ownership. Additionally, the Arctic would provide new shipping opportunities for both Chinese importing and exporting, bypassing sensitive areas such as the Suez Canal or Strait of Malacca.

With this basic contextual information out of the way, the major findings of the research question may be addressed beginning with Russia. Sino-Russian cooperation was shown to have experienced a major upswing since 2014, roughly the same time as Western sanctions aimed particularly at the energy industry began to severely damage the Russian economy. In this way, China seems to have stepped in to act as a significant investor in Russian Arctic projects, particularly those involving energy extraction and exploration as well as the construction of transport infrastructure related to the Russian Northern Sea Route (NSR). These developments serve the double purpose of meeting China's goals through the BRI as listed above as well as supporting important sections of the Russian economy in the aftermath of sanctions. However, this project also found significant underlying tensions in Sino-Russian relations in the Arctic, and it became pertinent to analyze in particular a trio of failed or stalled multi-billion-dollar (equivalent in USD) projects in order to ascertain the sources of these tensions. Ultimately, Russian concerns over Chinese investment were found to potentially stem from considerations of the strategic sensitivity of the NSR to Russian state security, an unwillingness to cede operation control or decisive ownership stakes in major extraction projects to Chinese state investors and a seeming willingness to utilize other Asian investors such as India in order to avoid over-dependence on Chinese financing. On the Chinese side, a pair of major contracts were found which fell through due to the extensive "anti-corruption drive" spearheaded by President Xi Jinping, pointing to a

potential (albeit difficult and opaque) area for future research on Sino-Russian relations, namely the effects of entrenched corruption on the relationship.

Research into the American reaction to China's entry into the Arctic proved extremely fruitful, as well as the area of the project in which the most use could be made of primary sources in the form of just-released American policy documentation and official speeches by the Secretary of State. A lack of releases by civilian institutions were more than compensated for by a flurry of recent policy releases by the United States Department of Defense (DoD), particularly in the form of a comprehensive DoD Arctic Strategy and a Coast Guard strategic document which went into extensive detail about Chinese capabilities in the region. These were compared to earlier iterations of the same documents, which were found to have either mentioned China in somewhat muted terms or not at all, whereas the most recent documents made clear that China is viewed as a strategic competitor to the United States in the Arctic. The lack of civilian documentation only served to make this point more explicit, as did the official policy speech by Secretary of State Michael Pompeo at the Arctic Council in which he invoked the need for increased military security and characterized China's self-proclaimed "near-Arctic" status as

illegitimate. Overall, the American reaction to Chinese Arctic activity was shown to have been led entirely by considerations of military security, with practical effects consisting largely of substantially increasing funding for icebreaking vessels in order to maintain a regional presence and raising the issue of China's illegitimacy as a regional actor. While future policy releases or actions may emphasize civilian aspects or seek to improve Sino-American relations in the region, it is clear at the time of this project that the current administration of the United States is vocally opposed to China's entry into the region and is willing to overtly elevate this topic to a military concern.

Conclusion

While the above section illustrates the most important findings of this project's research, it also illustrates that there are many branching paths which further research into these fields could follow. The aforementioned language barrier of Russian and Chinese did serve as a limitation on adequately analyzing Sino-Russian relations, as did the opacity of political issues in these states. However, the breadth of the project served as the single largest limitation, and in another iteration perhaps focusing research on a single aspect (Sino-Russian economic relations in the Arctic, for instance) would prove even more fruitful. Ultimately, despite this somewhat overstretched breadth, this project answered our initial research question of China's impact on Arctic relationships by showing the region as becoming rapidly less insular, as a powerful outside actor seeks to establish an economic and policy foothold in the region.

China's growing interest in the region has not gone unopposed, with the Russian government expressing their misgivings through seeking to maintain decisive economic and operational control of sensitive projects and the Americans through overtly threatening behavior and policies opposing China's Arctic ambitions. Already there is unprecedented behavior from the American government, with the Secretary of State speaking of military security in the Arctic Council despite such topics being explicitly outside the Council's mandate, specifically to inveigh against an extra-regional actor. Russia has already, through actions such as inviting India as an alternate investor and seeking to keep Chinese involvement in direct operations low, shown a level of unease with growing economic reliance on China. For any future project on these considerations, a translator skilled in either Russian or Chinese would prove invaluable for deepening an understanding of the Sino-Russian relationship beyond economic data and Western academic sources.

"China's Growing Arctic Presence," Sherri Goodman & Marisol Maddox, Wilson Center, 19 November 2018 [42] https://www.wilsoncenter.org/article/chinas-growing-arctic-presence

Overview:

Since gaining the status of Observer to the Arctic Council in 2013, China has been making strides in increasing its Arctic presence. The vital role of a blue water Arctic in the future of geopolitics and global commerce is underscored in a remark made by Li Zhenfu of Dalian Maritime University who **said**, "Whoever has control over the Arctic route will control the new passage of world economics and international strategies."

In January 2018 China released its **Arctic Policy**, declaring the "Polar Silk Road" as the third extension of its Belt and Road Initiative, and China as a "Near Arctic State." Chinese companies, which cannot be fully separated from the government, have strategically stretched that role. They have expanded their engagement both physically, through funding icebreakers and increasing marine transits through the **Northwest Passage** and the **Northern Sea Route**, as well as financially and geopolitically, through dual-purpose direct investments and scientific undertakings in Arctic nations and corresponding territorial waters.

Current & Relevant Information:

Icebreaker Capacity and Transits

September 2018 featured the debut of **Xuelong 2** (Snow Dragon 2), China's first domestically produced icebreaker endowed with the pioneering capability of two-way icebreaking. China also has **plans** for a nuclear-powered aircraft carrier, an advanced vessel only currently possessed by Russia.

In contrast, the only functional heavy icebreaker belonging to the US is the Polar Star, which was built in the 1970's with a 30 year life expectancy. The newest, and

most technologically capable of the US' icebreaking fleet, is the Healy, however this medium icebreaker does not have the icebreaking capacity of a heavy vessel. It is no wonder, then, that this summer Secretary of Defense Jim Mattis **stated**, "America's got to up its game in the Arctic."

The summer of 2018 marked the **first time** that Russian LNG cargo was shipped to China using the Northern Sea Route (NSR) instead of the traditional southern route through the Suez Canal, which is perceived as a vulnerability to China because it is controlled by US allies. A northern route would additionally allow ships to avoid chokepoints that have historically proven problematic due to piracy concerns. This 2018 cargo transit event highlights the way that global commercial maritime transit will be physically shifting as climate change progresses over the next few decades. The NSR and other Arctic routes are not currently commercially viable on a large scale, but that will change as waters warm, ice melts, and improvements are made in hydrographic mapping, and search and rescue response capabilities. The NSR passage from Asia to Europe makes geopolitical sense for China as well as commercial sense, since it shaves around two weeks off of transit time compared to the southern route.

Foreign Direct Investment and Strategic Advantage

Doubtless, the High North needs investment funds for sustainable development and construction of infrastructure. To this end, China is a valuable economic partner. Investment funds accepted must be weighed, however, against the risks associated with geopolitical leverage gained with those investment dollars. Strategic investment has been shown to be one form of economic coercion employed by China, whereby it leverages influence to secure its interests. For instance, major telecom provider, Huawei, has been called "effectively an arm of the Chinese government." Financial investments have been used as leverage to coerce nations into severing diplomatic ties with **Taiwan**, which China claims as its sovereign territory. This is where economic development comes up against issues of sovereignty.

In the Arctic in particular, a November 2017 report from **CNA** revealed China has committed what is equivalent to 11.6% of Greenland's GDP to resource development **projects**. This high level of FDI has geopolitical implications because since voting for independence from the Kingdom of Denmark in 2007, Greenland has struggled to develop a comprehensive economic strategy that would allow it to be fully independent. While it is largely self-governing, Greenland still receives substantial funds from Copenhagen to buttress its seafood export-based economy.

The issue of the implications of FDI came to a head **recently** over the question of who would provide funding for airport infrastructure upgrades in Greenland. When Denmark realized that the financing frontrunner was China, the government quickly stepped in to provide the funds. When Greenland's Prime Minister, Kim Kielsen, accepted the money from Denmark, a pro-independence party (Partii Naleraq) of the

ruling four-party coalition, broke away because they viewed this as Danish interference in Greenlandic politics. This caused Kielsen to lose a majority in parliament, leading him to scramble over the coming days to successfully renegotiate a new coalition.

Greenland is strategically important for the US both due to the presence of Thule Air Force Base, as well as NATO airspace. Following the Greenland airport event, the Department of Defense (DoD) issued a **Statement of Intent on Defense Investments in Greenland**, stating the US intends to "pursue potential strategic investments vigorously, including investments that may serve dual military and civilian purposes," and to enhance its "military operational flexibility and situational awareness." In response to DoD's statement, Denmark's Minister for Foreign Affairs, Anders Samuelsen stated, "The Arctic is increasingly important from a geopolitical point of view. We warmly appreciate the defense cooperation with the United States in Greenland, contributing to our shared objective of security while maintaining the region a low-tension area."

China recognizes the strategic benefit of partnering with Russia to facilitate its entry into the Arctic. In the funding void created by US sanctions on Russia-owned gas producer Novatek, China has stepped in to provide financing, and is now, along with France's Total, a part-owner of Russia's LNG facility in the Yamal Peninsula. China will also help to fund the planned second Yamal LNG plant. As part of their retaliatory tariffs against the US, China chose to institute a 10% **tariff** on US liquid natural gas, effectively pricing the US out of their energy market in favor of Qatar, Australia, and Russia.

As foreign direct investment from China grows in scale and influence around the globe, it is being more heavily scrutinized. China has quickly and decisively seized opportunities. When Iceland faced pressure from the 2008 financial crisis, China leveraged this to ink its first **free trade agreement** with a European country. China has been willing to invest in foreign nations' infrastructure projects even when they are not commercially viable, for example, the fate of the **Hambantota Port** in Sri Lanka has caused much unease. This has brought the concept of "**debt trap" diplomacy** into the international dialogue. Even Russia, having agreed upon an **Ice Silk Road** with China, remains wary of the mounting investment funds, and is seeking to counter-balance Chinese influence by building upon a strategic partnership with **India**.

The US has started taking measures to provide alternative financing for countries who are hesitant to accept Chinese investment. This recently manifested in the bi-partisan passage of the **BUILD Act**, which expands the US government's ability to fund overseas development projects. Development banks also play an important role in providing international funds, with an emerging **option** for an Arctic Development Bank.

Strategic Science and Technology

China has significantly increased its strategic research and development in the Arctic with dozens of scientists in Svalbard, Norway, as well as over 200 scientists dedicated to the mission of the Polar Research Institute of China (PRIC). The number of China's ice breaking research vessel **transits** continues to increase annually. China has engaged in dialogue with Japan and South Korea on a changing Arctic for several years. It has also invested in scientists and technology within its oceanographic research enterprise to better understand the undersea domain.

Some have recently started characterizing the ambiguous nature of scientific exploration and infrastructure investments as "gray zone" challenges in this new era of great power competition. U.S. Special Operations Command **defines** the gray zone as being characterized by "competitive interaction among and within state and non-state actors that fall between the traditional war and peace duality. They are characterized by ambiguity about the nature of the conflict, opacity of the parties involved, or uncertainty about the relevant policy and legal frameworks." This inherent ambiguity makes it challenging, especially for developing states, to seek economic development opportunities and the scientific wherewithal to understand climate risk in a way that does not compromise their sovereignty.

In sum, China has been clear that it intends to pursue an Arctic presence for economic, scientific, and strategic interest. Climate change is a catalyst not only for melting Arctic ice, but for China's entry into Arctic geopolitics.

It is imperative for the US to step up its leadership role in the changing climate geopolitics of the Arctic during this unique window of opportunity. A failure to do so will have long term detrimental impacts on US strategic interests in the region.

"China's Strategy and Activities in the Arctic Implications for North American and Transatlantic Security," Stephanie Pezard, et al., RAND, 23 December 2022 [43]
https://www.rand.org/pubs/research_reports/RRA1282-1-v2.html

Summary:

Issue

Although a non-Arctic state, China is a significant Arctic player, undertaking numerous economic, scientific, cultural, diplomatic, and military activities in and around various Arctic countries. Since the June 2017 release of its Belt and Road Maritime Cooperation Plan, which identified the Arctic as a dimension of its larger Belt and Road Initiative (BRI), the Chinese government has repeatedly declared the Arctic region as a part of its broader strategy for expanding its global engagement and influence.

China's description of the Arctic as a "global commons" further highlights the country's intentions to be included in the political, economic, and environmental decisions that will shape Arctic activities and policies in the decades to come.

This research, which was conducted as a collaborative effort between the RAND Corporation and the Swedish Defence Research Agency (*Totalförsvarets Forskningsinstitut*, or FOI), examines the potential implications of Chinese investments and activities in the Arctic for the regional rules-based order and for regional and transatlantic security. It seeks to address three research questions:

1. What are China's ambitions and current and likely future activities in the Arctic?

2. What are the implications of Chinese activities for transatlantic security, and what risks could they pose to the regional rules-based order?

3. What strategies might mitigate the risks posed by some aspects of plausible Chinese presence and development in the Arctic?

Although these questions are pertinent for all eight Arctic Council member states (Canada, Denmark, Finland, Iceland, Norway, Sweden, Russia, and the United States), this report focuses mostly on the *North American Arctic*, defined very broadly as encompassing the U.S. Arctic, the Canadian Arctic, and Greenland.

Approach

To address these questions, the research team conducted several parallel efforts that consisted of

- reviewing primary and secondary sources in English and Chinese on China's Arctic strategy and diplomacy
- mapping existing and projected Chinese Arctic investments in the North American Arctic
- reviewing effects and implications of past Chinese activities in other regions
- assessing whether these effects are already taking place or could be taking place in the Arctic
- conducting a scenario-based tabletop exercise (TTX) to validate and supplement findings.

Our scenario-based TTX, titled "China's Arctic Reach," sought to (1) better understand the pathways through which China could become a prominent Arctic player, (2) discuss which of these pathways could upset the current regional rules-based order, and (3) identify potential responses or mitigation strategies for these pathways. The exercise, which revolved around a scenario set in 2035, took place remotely over three hours. It involved 20 participants and eight observers selected

for their expertise on the Arctic, China, or both in academia, research organizations, government, and industry.

Key Findings

This report finds that, overall, Chinese investments and presence in the North American sections of the Arctic remain fairly limited. This situation has not been the result of a lack of effort on the part of Chinese companies, investment firms, and scientific organizations, including some linked to the Chinese state. Rather, it has stemmed from U.S., Danish, and Canadian efforts to block or otherwise restrict Chinese investments in industries identified as being critical to national and NATO security interests. Additionally, Arctic subnational actors have been cautious in their welcoming of Chinese activities. More broadly, the Arctic presents strong factors of resilience that make it unlikely that Chinese investments in infrastructure could present the negative security, political, economic, social, and environmental outcomes that other regions of the world have experienced. The report identifies the following Arctic factors of resilience—some of which are largely within the control of the United States and its allies:

- China has strained bilateral relations with several Arctic states (defined as Arctic Council member states), which tend to act in solidarity.
- Arctic states have historically agreed to keep Arctic matters among Arctic states.
- Arctic states have fairly strict regulations that prevent potentially damaging Chinese activities.
- Local populations can prevent activities they deem threatening.
- High costs of investments in the Arctic limit the region's attractiveness.
- Arctic states' level of technological development limits China's appeal.
- Arctic states' relative wealth protects them from predatory lending practices.

Table S.1 provides a list of potential red flags that could alert policymakers to the possible weakening of these factors of resilience. Furthermore, although these factors of resilience mitigate many of the risks of Chinese investments and activities, they do not fully protect North American Arctic nations and populations from some of the adverse outcomes observed elsewhere. Gaps in these factors of resilience, as well as uncertainties about the future, that deserve particular scrutiny include the following:

- Russia's relationship with China creates uncertainties
- uncertainty related to Greenland's independence
- opportunities for investments (from China and others) will grow

- increased influence is difficult to track
- China may realize it is often its own worst enemy in the Arctic.

TABLE S.1
Potential Red Flags Suggesting Weakening of Resilience

Factor of Resilience	Red Flag: This Factor May Be Weakening If . . .
Strains in bilateral relations with China	China-Russia relations deepen and China makes inroads with one or more other Arctic nations
Arctic-centric governance	China's efforts to frame the Arctic as a global governance issue gain traction
Strong investment screening and regulations	Screenings and regulations are relaxed in the context of a major economic downturn
Strong environmental and local checks	A lasting increase in commodity prices pushes for more supply
Arctic solidarity	The Arctic Council becomes fragmented over engagement with Russia and/or China
High cost of investments	China prioritizes the Arctic in its strategy
High level of technology	Technological breakthrough facilitates access to Arctic resources
High level of wealth	Financial/economic crisis affects Arctic states or creates a higher reliance on trade with China

Recommendations

In addition to monitoring Arctic developments for these red flags, the U.S. Department of Defense (DoD), working in collaboration with interagency and international partners, can take steps to maintain and reinforce current factors of resilience, and to address some of the gaps and uncertainties that remain. We present five specific recommendations.

A first recommendation is to not only **maintain solidarity among U.S. allies and partners in the Arctic, but also to strengthen it wherever possible**. There is a strong consensus among Arctic states to maintain the governance of Arctic affairs among themselves, and this remains a powerful obstacle to undesirable Chinese involvement in the region. This recommendation calls for sustaining active multilateral and bilateral diplomatic activities with these countries and in the Arctic Council and other international fora. In addition, DoD and the U.S. Coast Guard have important roles in maintaining, and in some cases enhancing, engagement with other Arctic states—minus Russia—through security cooperation activities, which range from high-level exchanges to exercises, to joint training, to maritime domain awareness and safety activities (particularly with counterparts in Canada, Norway,

and Denmark and in the context of certain North American Aerospace Defense Command [NORAD] and North Atlantic Treaty Organization [NATO] activities).

A second recommendation is to **explore the conditions and possible pathways for restoring some level of engagement with Russia on Arctic issues in the wake of its war on Ukraine**. The suspension of the cooperation within the Arctic Council under the Russian chairmanship represents a break with previous periods of tension (e.g., after Russia's 2014 illegal annexation of Crimea and aggression in Eastern Ukraine) that had seen the continuation of the Arctic Council's activities. Although reengagement does not have to be immediate or cover all topics, concertation and common work in such areas as search and rescue (SAR) or pollution prevention would benefit all Arctic Council members, including the United States. Some degree of reengagement might also help maintain Russia's commitment to the Arctic Council—an organization that the United States values, with U.S. Coordinator for the Arctic Region James DeHart noting that it wanted to maintain it in its current structure and with the current membership. A potential adverse outcome of the current paralysis of the Arctic Council could be a push from Russia for a new (or drastically changed) Arctic governance institution, in which it would not be the only non-NATO member (in the expectation that Finland and Sweden join NATO), and where other Arctic-interested states—such as China—might have a louder voice. Although Russia has not yet shown signs that it wishes to move on from the Arctic Council (calling instead for a resumption of the Arctic Council's activities), complete and protracted paralysis could harm current Arctic governance and pro- vide an opening for China to insert itself more decisively in that system. Such engagement could help convince Russia that it has more to gain from maintaining the status quo (that has worked fairly well for Moscow so far) in the Arctic rather than take the chance of bringing in another—and bigger—player. Although defense and security cooperation with Russia remain unlikely for the foreseeable future, the Arctic is a place where cooperation can and has taken place on other areas of mutual interest during periods of tension. Western cooperation with Russia on Arctic SAR, which has implications for military and commercial activities, was continued after other defense and scientific engagement were suspended in 2014 following Moscow's 2014 illegal annexation of Crimea and aggression in eastern Ukraine. Another large area of mutual interest with Russia and China will be countering the effects of climate change in the Arctic region, including engaging on infrastructure resilience.

A third recommendation is for the United States to work closely with other Arctic states, particularly Denmark and Canada, to **maintain active engagement with the Greenlandic government to promote mutual interests and sustainable economic development**. The United States has taken positive steps in this regard, including reopening a consulate in Nuuk in 2020; initiating cooperation on education, trade and investment, science, minerals and energy, and economic growth; and a May 2021 visit by Secretary of State Antony Blinken to Greenland during which he

pledged to further this partnership. This cooperation should be designed first and foremost with the interests of the Greenlandic population in mind—the key question being: How can U.S. engagement benefit Greenlanders as clearly and directly as possible, and make the United States appear as a long-term, promising partner? The new arrangement, negotiated in 2020, regarding Thule Air Base—whose maintenance will now largely be undertaken by Greenlandic companies rather than U.S. ones—is an example that DoD's presence can add value by supporting the local economy and contributing—even on a small scale—to addressing long-standing unemployment issues in Greenland.

A fourth recommendation is for the United States to **continue to elevate its engagement in the Arctic**. Our TTX participants highlighted the importance of making it clear to both other Arctic and non-Arctic states that the U.S. commitment to the region is solid. This commitment should not be solely based on the strategic role that the Arctic plays in strategic competition with Russia and China, but rather is the continuation, at an ever more sustained level, of the long history of U.S. diplomacy, stewardship, and scientific research in the region.

A fifth recommendation is to curtail some of China's appeal and elevate U.S. commitment to those living in the Arctic by **working more closely with indigenous populations**. An example that could be replicated is the cooperation between the Alaska Federation of Natives with DoD, which has resulted in more information-sharing and a closer partnership overall. This could be done through working with the Arctic Council's Permanent Participants, four of which (the Aleut International Association, the Arctic Athabaskan Council, Gwich'in Council International, the Inuit Circumpolar Council) represent populations living in Alaska. Such initiatives could be undertaken as a joint U.S.-Canada effort (with the Arctic Athabaskan Council and Gwich'in Council International) or as a joint U.S.-Canada-Greenlandic effort, with the Inuit Circumpolar Council, because indigenous populations live across national boundaries. This would require identifying issues of overlap between the national security interests of the United States and its Canadian and Danish allies, and the human security interests of indigenous people living in these states. Working with indigenous communities to develop secure telecommunications infrastructure in the Arctic, or to develop sustainable local renewable energy sources, might be some areas where overlap could be found.

Current & Relevant Information:

Although a non-Arctic state, China has become a significant player in the Arctic region, engaging in economic, scientific, cultural, diplomatic, and military activities in and around various Arctic countries. This report examines the potential implications of Chinese investments and activities in the Arctic for the regional rules-based order and for regional and transatlantic security. It evaluates China's strategy and diplomacy in the region, inventories existing activities in the North American Arctic (the United States, Canada, Greenland); and assesses the risks that these activities

might pose in the Arctic in light of security, political, economic, social, and environmental issues from similar activities in other regions of the world.

“What Does China's Arctic Presence Mean to the United States?” Doug Irving, RAND, 29 December 2022 [44] https://www.rand.org/pubs/articles/2022/what-does-chinas-arctic-presence-mean-to-the-us.html

Overview:

A Coast Guard cutter spotted the ships during a routine patrol of the Bering Sea, north of Alaska: a guided missile cruiser and two smaller ships from China, traveling in formation with four ships from Russia. The cutter followed until they split up and dispersed.

“In the Arctic, the United States sees China as a potentially destabilizing force, with the economic and military power to try to bend the established order to its liking.”

Current & Relevant Information:

The ships broke no rules and violated no boundaries. But their appearance so close to the Arctic this past fall raised concern in Washington nonetheless. For years, China has worked to establish footholds in the region that would give it access to rich mineral deposits and shipping lanes, as well as a greater say in Arctic affairs. That—and a strategic presence in a region ringed by the United States and several other NATO countries.

Researchers at RAND and the Swedish Defence Research Agency looked at where China is operating in the Arctic, what it wants, and what that could mean for regional security. They concluded that China has made only limited inroads in the Arctic, but that's not for lack of trying.

“The threat should not be inflated,” said Stephanie Pezard, a senior political scientist at RAND who specializes in Arctic security. “But at the same time, they have a clear intent to not be excluded from Arctic developments as the region becomes more accessible. The real questions are, How much of a role do they want, and what does that mean for an Arctic nation like the United States?”

Conditions in the Arctic have always been so extreme, the distances so vast, that even rivals like the United States and Russia were forced to cooperate there. But the Arctic is warming faster than anywhere else on the planet. Sea routes that sailors and explorers have dreamed about for centuries are starting to open. The promise of Arctic riches—oil, minerals, trade routes, even fish—has started to draw interest from far outside the northern latitudes.

China has declared itself a “near-Arctic state,” a designation it invented to push for a greater role in Arctic governance. It has dispatched research expeditions, sought to establish mining and gas operations, and envisioned a network of shipping routes crossing the Arctic, a “silk road on ice.” It describes itself as an “active participant,

builder, and contributor in Arctic affairs," one that has "spared no efforts to contribute its wisdom to the development of the Arctic region."

But in the Arctic, as in the rest of the world, the United States sees China as a potentially destabilizing force, with the economic and military power to try to bend the established order to its liking. The Pentagon considers China its "pacing challenge" of the foreseeable future. Its Arctic strategy, released in October, pays particular attention to the risk of China using commercial or scientific access to the Arctic for military advantage.

Researchers at RAND set out to document known Chinese activities in the North American Arctic, which touches Alaska, Canada, and Greenland. Their counterparts in Sweden focused on the European side, from Iceland, through the Nordic countries, to Russia.

What they found: Especially in the North American Arctic, "there's not a ton going on," Pezard said. China has invested in a handful of mining operations, mostly chasing valuable rare earth minerals. It has trade partnerships with Greenland and a small stake in a zinc mine in Alaska. A Chinese company tried to buy a shuttered U.S. Navy base in Greenland, but the Danish government quashed the idea.

China has used loans and infrastructure deals to prop open the door for itself in countries across Asia, Africa, and Latin America. But the countries of the North American Arctic have generally taken a hard look at any proposed Chinese investments—and often a hard pass. Canada blocked a $150 million gold mine deal that would have put Chinese interests too close to military installations. Greenland has held up plans for another Chinese mine over concerns about pollution.

"We didn't see the more nefarious activities that we've seen in other parts of the world, like predatory lending or influence over local decisions, that are more damaging to international norms," said Stephen Flanagan, an adjunct senior fellow at RAND and former senior director for defense policy and strategy at the U.S. National Security Council. "All of the governments are being careful in how they deal with China. It's a 'buyer beware' approach."

RAND's study did not include the Russian side of the Arctic. That may be China's best route to greater Arctic influence. The Arctic Council, a governing body of Arctic States and indigenous nations, suspended its meetings last year, refusing to engage with Russia after it attacked Ukraine. A panel of experts that RAND convened for its study noted that Russia could seek to form its own Arctic governing council, with a more central role for its ally, China.

The experts thought that was possible, but not necessarily probable. Despite its joint operation in the Bering Sea this past fall, and codevelopment of a natural gas project in the Russian Arctic, Moscow has also been wary of letting China pursue its ambitions so close to its home shores. And rather than walk away from the existing

council, Russia has called for it to resume its meetings, with Russia back at the table.

For now, the U.S. should continue to make the Arctic a diplomatic, economic, and strategic priority, to demonstrate its commitment to the region and its people, researchers concluded. It should work to strengthen solidarity among its Arctic allies—and explore conditions under which it could restart some engagement with Russia, such as on search-and-rescue preparedness.

But the U.S. should also recognize that engaging with China in the Arctic does not have to be a win-or-lose proposition. There are opportunities to cooperate—on climate change, for example, or pollution control. China has already played a key role in international agreements to protect Arctic fisheries and to create maritime shipping regulations. On paper, at least, both China and the United States are committed to ensuring the Arctic remains a region of peace and stability.

The next few years will be a crucial test. If current projections hold, the Arctic could see its first ice-free summer by 2030.

Russia's Involvement in the Arctic:

"What Are Russia's Interests In The Arctic, And How Do They Affect Regional Security?" Maryna Yakymchuk, Ukraine World, 21 August 2023 [45]
https://ukraineworld.org/en/articles/infowatch/russias-interests-arctic

Overview:

Russia has increased its activities in the Arctic in recent years, which poses a threat to global security.

Russia has long been interested in the Arctic region, and it recently became one of Russia's military capacity-building hotspots. Over half **of the Arctic coastlines belong to Russia, which is used to locate military bases and airstrips that rival NATO and its allies.**

Current & Relevant Information:

Furthermore, over the last three years, Russia has taken steps to bolster its legal framework in order to legitimize its actions. This has been achieved through the adoption of several key documents:

- The basis of State policy of the Russian Federation in the Arctic by 2035 (2020)
- The Strategy of developing the Arctic zone of the Russian Federation and ensuring national security by 2035 (2020)
- The State Program of Social and Economic Development of the Arctic Region (2021)

- The Conception of Foreign Policy of the Russian Federation (2023)

In these documents, Russia defines its main priorities, goals and instruments for implementing its Arctic policy, with an emphasis on increasing its military presence and nuclear potential building, as well as searching for new resources and providing economic developments.

In practice, this means saber-rattling with NATO's members and laying the groundwork for a possible confrontation with the West.

Russia's reasons for its interest in the Arctic are clear:

SECURITY FOR ITS NUCLEAR ASSETS

According to Carnegie, Russia wants to keep 6 of the 11 ballistic missile submarines (SSBNs) on the Kola Peninsula, capable of attacking NATO states in response to their actions.

In such a way, Russia protects its ability to act in the North Atlantic and the European part of the Arctic in the event of a confrontation with NATO. Furthermore, Russia has an exit to the Barents Sea and the Norwegian Sea via its North Navy, allowing Russia to wield significant influence in potential NATO conflicts.

SEARCHING FOR NEW RESOURCES AND ECONOMIC DEVELOPMENTS

According to the Strategy of developing the Arctic zone of the Russian Federation and ensuring national security by 2035, 80% of Russian natural gas and 17% of oil are extracted from the Arctic, but in the future, it is planned to reduce gas output while increasing oil production.

Russia plans to expand the Northern Sea Route and increase shipments through Arctic waters by investing in infrastructure and transportation, as well as energy projects and technologies.

STRENGTH OF GEOPOLITICAL INFLUENCE

In its recent Conception of the Foreign Policy of the Russian Federation, Russia emphasizes its commitment to territorial integrity and the cultivation of relationships with non-Arctic states that pursue constructive policies towards Russia.

Additionally, Russia intends to take measures to counteract and mitigate any initiatives that are detrimental to Russian interests involving the militarization of the region.

Guided by these principles, Russia interprets China's engagement in its Arctic policy, as well as the interactions with NATO and its allies, as actions contrary to its interests and hostile towards Russia.

RUSSIA WANTS TO INCREASE CHINA'S ROLE IN THE ARCTIC

The Murmansk Memorandum signed by Russia's FSB and China's Coast Guard on extending security cooperation reflects Russia's perception of China's involvement in the Arctic region.

The Head of the FSB Border Guard Service, **Vladimir Kulishov**, stated that both countries were determined to strengthen cooperation to combat terrorism, illegal migration, drug and weapon smuggling, and illegal fishing.

Furthermore, Russian officials stated that China and Russia intend to continue further cooperation in the area.

Such Russian-Chinese cooperation is advantageous to both parties as Russia attempts to expand its geopolitical role by engaging with China's support and returning the current security situation to a bipolar world order.

China is not an Arctic state, and its involvement in regional affairs demonstrates Russia's desire to rally allies to oppose NATO's member states and its partners.

COMPETITION WITH THE WEST

Russia is a member of the Arctic Council, an organization that also encompasses the United States, Canada, Denmark, Finland, Iceland, Norway and Sweden. Notably, six out of the eight members of this council are also part of the NATO alliance.

Furthermore, there are indications that Sweden will soon become a NATO member. Consequently, Russia is facing a situation where it will be geographically surrounded by NATO countries, which it perceives as posing threats to its national security.

According to the Guardian, over the course of the past six years, Russia has constructed **475 military sites** along its northern border.

This initiative included the refurbishment of former Soviet outposts, as well as an increase in the variety of missile systems deployed. These developments underscore Russia's efforts to maintain a military posture that is competitive with that of Western powers.

Furthermore, Russia's media outlets do not rule out an open confrontation between Russia and the US.

Viktor Murakhovsky, a member of the expert council of the Military Industrial Collegium, has pointed out that the primary flight routes for the United States' strategic aviation traverse the Arctic and the North Pole.

He emphasized that this region holds strategic significance for missile launches, making it particularly advantageous in this regard.

RUSSIA'S ARCTIC POLICY AIMS TO STRENGTHEN ITS MILITARY AND GEOPOLITICAL ROLE

Russia is actively bolstering its military capabilities in the Arctic as part of its strategy to both maintain and enhance its covert confrontation with Western powers. In addition, the Arctic region serves as a strategic repository for Russia's inventory of military equipment and missiles.

It also serves as a crucial training ground for honing military capabilities. Despite its geographical isolation, Russia strategically utilizes the Arctic as a passive instrument in its broader confrontational stance against Western nations.

To sum up, Russia's ambition to reclaim some aspects of its Soviet-era dominance is driving its desire to revive a Cold War scenario. In light of this, it becomes imperative for Western powers to prevent Russia from further expanding its presence and influence in the Arctic region.

This dynamic underscores the geopolitical significance of the Arctic as a theater for both subtle and overt power struggles.

"The Russian Arctic Threat: Consequences of the Ukraine War," Colin Walland and Njord Wegge, Center for Strategic & International Studies, 25 January 2023
[46] https://www.csis.org/analysis/russian-arctic-threat-consequences-ukraine-war

Overview:

The impact of Russia's war in Ukraine has been felt in the Arctic. The region's primary diplomatic venue is paused, and military tensions are increasing. When Sweden and Finland join the North Atlantic Treaty Organization (NATO), every Arctic country save Russia will be a member of the U.S.-led alliance. The war has not diminished Russia's core economic and security interests in the region, but it has had some impact on its military readiness there in the short term, especially in terms of ground capabilities, if not at sea or in the air. In addition, there are some preliminary indications that sanctions and export controls may diminish Russia's ability to deploy precision munitions to the Arctic to a degree. At the same time, Russia's use of hybrid tactics in the region seems to be increasing in both frequency and severity. The United States and NATO will need to take stock of these developments in a region they have not historically prioritized as they begin to implement their new, respective strategies.

Current & Relevant Information:

Introduction

Russia's unprovoked and brutal invasion of Ukraine in February 2022 disrupted the European security architecture and altered the risk calculus underpinning the foreign and security policies of its neighbors. This shift was also stark in the Arctic, which had for a long time been hailed by many as a highly cooperative and unusually peaceful part of international affairs.

First, the Arctic Council ceased to function when its seven members other than Russia suspended participation in official meetings. This left the region without its main intergovernmental venue for cooperation. Next, in search of security, Finland and Sweden requested to join NATO. Furthermore, Russian “hybrid tactics”—to now possibly also include the sabotage of the Nord Stream pipelines, as well as that of undersea cables in the Arctic and near-Arctic, among other activities—have raised the level of alarm in NATO members like Norway and nearby states. Finally, the increased security concerns are also seen in newly released policy documents, such as the U.S. Arctic Strategy. The first U.S. government-wide Arctic strategy since 2013, it states that Russia’s war in Ukraine has “raised geopolitical tensions in the Arctic” and created “new risks of unintended conflict,” a point that is also emphasized in the U.S. National Security Strategy (NSS). However, the Arctic has not been a top security priority for the United States or NATO in recent years, and there are weighty arguments that this might be a problem that needs addressing as tensions rise.

Russia’s military interests in the Arctic are ostensibly defensive: to defend its second-strike, sea-based nuclear deterrent capability operating out of the Kola Peninsula; to defend the homeland; and to protect its regional economic endeavors, especially oil and gas megaprojects like the Yamal LNG and Vostok Oil ventures, and the Northern Sea Route (NSR), which Russia views ambitiously as a future global trade thoroughfare.

Russia also has offensive goals. First, it seeks to use the Arctic as a staging ground for power projection, especially into the North Atlantic Ocean via the Greenland-Iceland-UK (GIUK) Gap. Second, it may consider hybrid activities to intimidate or coerce European Arctic countries. Finally, in an unlikely—but not unthinkable—wider NATO-Russia conflict, having escalated to a war, one can imagine Moscow risking a limited incursion into Norway or Finland in a bid to protect its critical nuclear assets in the Kola Peninsula by creating greater defensive depth through, for example, the establishment of more western anti-access/area denial system systems at relatively easily defended sites west of its border. This scenario resembles Cold War-era fears. A perhaps more likely modern conflict scenario could involve long-range precision strikes of high-value assets like the Norwegian or future Finnish F-35s and the infrastructure needed to keep them flying. In addition, in accordance with basic military-strategic theory, one can also assume that command and control sites, radars, and important bases supporting key naval capabilities or anti-submarine warfare planes such as P-8 Poseidon maritime patrol aircraft would be attractive targets.

The war in Ukraine has not materially changed these Russian core interests. The need to protect the nuclear second-strike capability based out of the Kola Peninsula will be undiminished, and even heightened, in the likely event that Finland joins NATO. If and when this scenario plays out, critical military installations such as the

Northern Fleet's strategic submarine base at Gadzhiyevo will be less than 200 kilometers away from the border of a new NATO country. As a response, Russian defense minister Sergei Shoigu, after meeting with President Putin, stated in December that new military bases would be established: "Given NATO's desire to build up military potential near the Russian borders, as well as to expand the North Atlantic Alliance at the expense of Finland and Sweden, retaliatory measures are required to create an appropriate grouping of troops in Northwest Russia."

Furthermore, despite the diminishing European market for Russian Arctic fossil fuels—and the evaporation of foreign investment in such projects from sanctioning countries—there is little evidence Putin intends to reduce his economic ambitions in the region: an NSR development plan including roughly 1.8 trillion rubles in funding was approved in August 2022, and work continues on oil megaprojects. It is reasonable to assume Russia will maintain its regional military posture commensurately.

This paper first reviews Russia's prewar Arctic military assets before investigating which of these assets have been used and potentially lost in the invasion of Ukraine. Taking stock of these potential war damages, as well as the impact of sanctions on Russia's defense industry, the third section assesses the relative attractiveness of hybrid tactics for Russia to assert itself in the Arctic. The fourth section analyzes some implications of these findings for NATO and the United States.

Section One: Russian Conventional Military Capacity in the Arctic before the War

Command and Unit Structures

The Northern Fleet Joint Strategic Command is Russia's Arctic military command and the core of its regional presence. The fleet's area of responsibility includes the western and central Arctic. The Eastern Military District commander is responsible for the eastern Arctic, all the way to the Bering Strait. The fleet's primary responsibilities are to defend and ensure beneficial operational conditions for Russia's second-strike nuclear capability, as well as the homeland.

The Northern Fleet has five operational formations, each with several tactical units. Most are housed on the Kola Peninsula. These include three naval formations, the

45th Air and Air-Defense Forces Army (AADA), and the 14th Army Corps. The naval formations include the Northern Fleet's Submarine Command and fleet, as well as the Kola Flotilla, which contains most naval assets intended for Arctic-specific use, including some main surface combatants. There is also the 61st Naval Infantry Brigade, which includes some reconnaissance forces among other assets, as well as special forces units in Polyarny. The 45th ADAA was formed in December 2015. Its precise tactical makeup is not publicly available, but reports indicate that it bears responsibility for anti-missile systems and distributed units on bases in the central Russian Arctic. The two main units of the 14th Army Corps are the 200th Motorized Rifle Brigade and the 80th Arctic Motor Rifle Brigade, in addition to other smaller subordinated units working on tasks like command and control, among other roles.

The Northern Fleet also oversees the restoration of dozens of Soviet-era military installations that now dot the Russian Arctic, east of the Kola Peninsula. These installations vary in size and the degree to which they host troops and kinetic capabilities. Roughly, there are 3 major bases, around 13 airfields, 10 radar stations, 20 border outposts, and 10 emergency rescue stations. Finally, there are military assets that are not based in the Arctic but should be considered in the analysis. For example, two Russian airborne assault units are assigned to help protect the Kola Peninsula: the 76th Guards Air Assault Division and the 98th Guards Airborne Division. These divisions, as well as the 106th Guards Airborne Division, have trained for Arctic-specific missions.

Specific Capabilities

- **Submarines.** The Northern Fleet hosts eight of Russia's ballistic missile submarines (SSBNs) of the Delta IV and Borei classes. Their purpose is strategic: to maintain Russia's retaliatory nuclear strike capability. The Delta IV submarines are each capable of carrying 16 SS-N-23 Sineva submarine-launched ballistic missiles (SLBMs), as well as, reportedly, the SS-N-15 Starfish anti-submarine missile. The Borei submarines can carry 16 SS-N-32 Bulava SLBMs. The Northern Fleet is believed to have approximately 16 other active combat submarines, including six nuclear-powered attack submarines (SSNs) of the Akula, Victor III, and Sierra II classes, five nuclear-powered guided missile submarines (SSGNs) of the Severodvinsk and Oscar I/II classes, and five Kilo-class diesel submarines (SSKs). The upgraded Akula-class submarine will reportedly be armed with some variant of the Kalibr missile. The Sevorodvinsk submarines carry two variants of the Kalibr—both the land attack missile (SS-N-30) and the anti-ship variant (SS-N-27). The formidable submarine is also armed with the SS-N-26 Strobile anti-ship cruise missile, i.e. the P-800 Oniks. The Oscar II-class is armed with SS-N-19 Shipwreck and SS-N-16 Stallion anti-ship missiles. Victor III and Sierra II submarines are armed with the SS-N-21 Sampson cruise missile. One could also argue that the Northern Fleet has access to auxiliary submarines for noncombat functions, ostensibly including undersea research, but most likely also including covert tasks, even though these officially report to the Main Directorate of Deep-Sea Research. Not all submarines are made equal, of course—some are outdated and noisy, and some have limited combat potential. Overall, anti-submarine warfare experts consider Russia's subsurface fleet to be formidable. The deployments of the Kalibr are especially notable: it is a long-range precision missile at the high end of Russian capabilities. It gives the Russian Navy the ability to hit distant targets—between 1,500 and 2,500 kilometers—from platforms that can be difficult to detect.
- **Surface Combatants.** As of 2019, the Northern Fleet officially had 37 surface vessels, including 10 operational large vessels and the Admiral Kuznetsov aircraft carrier (the only one in The Russian Navy), although the latter was damaged in a pair of accidents a few years earlier and will likely not re-enter service before 2024. The Admiral Kuznetsov is armed with the SS-N-19 Shipwreck anti-ship missile and the SA-N-9 Gauntlet surface-to-air missile, among other systems. The fleet's flagship vessel is the Kirov-class nuclear-powered missile cruiser Pyotr Velikiy. Kirov-class cruisers also use the Shipwreck and Gauntlet systems, as well as other surface-to-air missiles. A second Kirov-class cruiser has been under reconstruction since 1999; although The Russian Navy claims it will be back in service in 2023, work on this vessel has repeatedly been extended. There is a Slava-class guided missile destroyer (the Marshal Ustinov), which uses the SS-N-12 Sandbox anti-ship missile, as well as having surface-to-air missile systems. There are also two Gorshkov-class

frigates, which are armed with both the land-attack and anti-ship variants of the Kalibr, as well as Oniks missiles, two Udaloy I/II-class anti-submarine warfare ships, and one Sovremenny-class destroyer that uses the SS-N-22 Sunburn anti-ship missile. The fleet has an estimated eight landing ships (Ropucha- and Ivan Gren-class). It also has two ice-class ships of its own and can call on 46 “civilian” icebreakers. It also has a small fleet of minesweepers. Finally, there are ice-reinforced auxiliary vessels, such as a logistics ship, a tanker, and two research vessels.

- **Ground Capabilities.** Russia’s major ground capabilities are limited in the Arctic. According to a prewar study from the Royal United Services Institute (RUSI), the three brigades had between them approximately 50 tanks, 450 armored personnel carriers, and an indeterminate number of “cross-country vehicles and multipurpose articulated tracker carriers,” as well as various artillery systems and some attack aviation capacity.
- **Air Combat Capabilities.** According to RUSI, Russia has four major air units in the Arctic. At Severomorsk, there are two: the 279th Shipborne Fighter Regiment with approximately 24 Su-33 fighter jets and the 100th Shipborne Fighter Regiment with 24 MiG-29K fighters. At Monchegorsk, the 98th Mixed Air Regiment has an estimated 12 MIG-31BMs, 12 Su-24Ms, and an indeterminate number of Su-24MR reconnaissance crafts. Finally, there is an uncrewed aerial vehicle (UAV) regiment at Severomorsk, as well as maritime patrol aircraft like the Il-38N and Tu-42. Before the war in Ukraine, there were also an estimated 30 bombers under the command of the Northern Fleet, many of which were housed at Olenya under the control of the 40th Mixed Aviation Regiment.[60] In addition, there are occasionally Tu-95 and Tu-160 bombers forward deployed across the Arctic.
- **Missile Capabilities.** The distinction between defensive and offensive missile capabilities is not sharp in practice, and the below capabilities can be used for multiple ends. The Northern Fleet operates a “hardened, Arctic-capable, multilayered air defence and sea denial system,” which is part of the Bastion defense concept. In addition to the key air defense capabilities on the Kola Peninsula, including the S-400 system, there are three Arctic bases most critical to this concept: Nagurskoye, on Alexandra Land Island, Franz Josef Land; Temp base on the main New Siberian Island in the east; and Rogachevo base on Novaya Zemlya. Each has some combination of long-range S-300 and S-400 anti-air systems, medium-range P-800 Oniks anti-ship missiles, short-range Pantsir and Tor M2DT surface-to-air systems, and coastal defense K-300P Bastion-P and 4K51 Rubezh systems. In addition, the S-400 is deployed at Severodvinsk, and the S-300 system is deployed at Olengorsk on the Kola Peninsula and to the Tiksi air base in the eastern Russian Arctic. The latter system, it should be noted, has been reported as being used in a surface-to-surface offensive role in Ukraine. As the S-400 is a similar system, it may be similarly versatile.

Furthermore, the Northern Fleet reportedly "holds 20 percent of Russia's precision strike capability in peacetime, and possesses the launch platforms of all its air-launched Kinzhal [hypersonic] ballistic missiles." Kinzhal missiles have reportedly been fielded on bombers and MiG-31s. In addition, the Admiral Gorshkov frigate and Sevorodvinsk submarines have tested the hypersonic Tsirkon anti-ship missile in the Arctic at least eight times since fall 2020. Both the Sevorodvinsk- and Oscar II-class submarines are able to launch both the Tsirkon and the supersonic P-800 Oniks cruise missiles, making them "increasingly lethal at long ranges." The fleet's largest ammunition storage for submarine-launched ballistic missiles is at Okolnaya Bay on the Kola Peninsula. The result of all this is a dense missile defense network with offensive potential in the western Russian Arctic that becomes more open as one moves eastward.

- **Domain Awareness.** Russia claims to have deployed its Rezonans-N radar system to bases on Novaya Zemlya, the Kanin Nos Peninsula, and at Indiga. These systems may be notable in that, according to some Russian sources, they can detect hypersonic missiles and stealth planes and possess supposedly advanced over-the-horizon capabilities. It is not clear, however, if the indication and warning they can provide against stealth aircraft can come early enough to ensure interception. There is reportedly also a "dual-use air-surveillance radar station" on Graham Bell Island. Sopka-2 radar systems are deployed at the Temp, Nagurskoye, and Rogachevo air bases. Finally, Russia has some space-based intelligence, surveillance, and reconnaissance (ISR) capabilities pertaining to the Arctic, including Meridian-M communications satellites and an Arktika-M weather satellite for navigation support.
- **Electronic Warfare.** Russia reportedly maintains electronic, or electromagnetic, warfare centers at Severomorsk, Kamchatka, and Primorsky Krai. Analysts note that the systems likely deployed to centers such as these could facilitate anti-submarine warfare and interfere with maritime communications. Russia's doctrine emphasizes electronic warfare. It may be used to jam Western communications, radars, and datalinks for one of several purposes: to confuse an adversary, to blind them, and/or to lengthen or interrupt adversary decision-making processes and kill chains. If used well, this can provide a battlefield advantage. This capability can also be used maliciously in peacetime, as Section Two describes.

Section Two: Impact of the War on Russia's Conventional Capacity

Direct Impact of the War

Establishing credible unclassified reports of destroyed Russian assets or decimated units is challenging, but a few assertions can be made. First, relatively early in the war, some Northern Fleet naval assets were sent to the Mediterranean Sea, the Black Sea, or Ukraine itself, including the Marshal Ustinov—which is now one of only two remaining Slava-class cruisers after the sinking of the Moskva in April—and

three large landing ships. Second, the three large landing ships carry an estimated 30 tanks and 1,000 troops between them but, even though they took off from a Northern Fleet port originally, they made a port call in Kaliningrad before sailing south to the Black Sea. It is therefore highly likely that some assets the ships were transporting were not from the Northern Fleet. Third, no Northern Fleet warships or submarines have been reported destroyed in the conflict. The Marshal Ustinov left the region during the summer, and at least one of the landing ships has been seen in the Arctic as recently as September. Fourth, there are no credible reports that any of the Northern Fleet air combat capabilities identified above have been destroyed in the conflict.

Fifth, and most notably, there are reports that several Russian Arctic units have been deteriorated, especially ground forces. The 200th Motorized Rifle Brigade and 61st Independent Naval Brigade have been involved in the fighting in Ukraine, as has the 80th Arctic Motor Rifle Brigade and the 76th Guards Air Assault Division. What is more, there is reason to believe one battalion tactical group of the 200th has been not only involved in the fighting but effectively wiped out: an adviser to Ukrainian president Volodymyr Zelensky asserted in March that 645 of the group's 648 soldiers had been killed. Eighteen of the tanks confirmed to be destroyed in Ukraine are T-80BVMs, a type that the 200th had at its disposal. Finally, a Northern Fleet unit of marines that reportedly "trained for reconnaissance and sabotage operations behind enemy lines," the Special Underwater Forces unit 69068, may have been effectively eliminated. However, as the war goes on, credible independent verification of the war losses is difficult to obtain.

Impact of Sanctions

In addition to direct attrition due to the war, it may be useful to consider the impact of sanctions and export controls on the Russian economy and defense industry, both with respect to forthcoming capabilities destined for the Northern Fleet and to advanced systems in the Arctic that depend on foreign technology and may be in demand for Russia's war in Ukraine.

To the first question, there is a sizeable list of assets that the Northern Fleet is supposed to receive in the coming years. Another Borei-class SSBN is due to join the fleet, as are the following submarines: three Akula SSNs undergoing refits to, it is believed, give them the ability to launch Kalibr cruise missiles; three more Severodvinsk SSGNs; and an indeterminate number of next-generation Lada-class SSKs. The ambitious Lider-class destroyer project had intended to build eight of these advanced vessels, which would have been split between the Northern and Pacific Fleets. Even before the recent round of sanctions, the project was beset by difficulties and a reported lack of funding. Its current status is not clear based on public information. As noted earlier, the Admiral Kuznetsov aircraft carrier is currently undergoing repairs. A second diesel-electric icebreaker may be forthcoming for the navy, as well as one new Arctic patrol icebreaker. Two more

Rezonans-N complexes are expected to be constructed by the end of the year. Russia also intends to launch three more Arktika-M satellites by 2025 and has claimed that two early-warning Voronezh systems will be operational by the end of 2022. Finally, it has been speculated that Russia's long-rumored, nuclear-enabled, autonomous torpedo drone, the Poseidon, could be based on the Kola Peninsula.

The overall state of the Russian economy and the impact of sanctions may affect its ability to field these and other capabilities on schedule. Sanctions have already significantly impacted the Russian economy. Some analysts predict it will not return to prewar levels until the end of the decade, and the threat of secondary sanctions will only increase over time. Some sectors have been significantly affected and, as of June 2022, imports from sanctioning countries had "collapsed by 50 percent or more in comparison" to the same period in 2021. Russia has already fallen into a recession. At the same time, there are signs of resilience. Russia has shown some ability to source goods from some non-sanctioning countries, and India and China have increased oil purchases, compensating so far for the loss of the EU market. Furthermore, the Russian defense sector is relatively less dependent on imports than those of other countries. Moscow is willing to prop up the sector and divert funding to it at the expense of others, such as healthcare or education. Experts have estimated that defense spending in the first seven months of 2022 exceeded the same period in 2021 by about $20 billion, and the defense procurement budget may have increased by roughly 45 percent over the past year. Overall, there is some consensus among experts that the Russian defense industry will still be able to produce less sophisticated weapons systems, but that high-tech capabilities will be an issue, both because of export controls and because of brain drain. Despite attempts to increase its self-sufficiency in the last eight years, Russia has relied on foreign technology in its defense, especially when it comes to high-end computer chips. For example, as of June, Russia's main armored vehicle manufacturer had ceased tank production for lack of foreign parts; tank variants like the T-90 rely on Western electronics. Even parts of Russia's military tactical communications system reportedly depend on Western components.

A few specific findings are relevant to the Arctic theater. First, Ukrainian forces found five U.S.-made chips in a captured defense Pantsir air defense system, which has been deployed to the major bases on Alexandra Land Island, the New Siberian Islands, and Novaya Zemlya, as well as on the Kola Peninsula; it was intended for use to support the 80th Arctic Motor Rifle Brigade. Second, some precision-guided munitions also depend on Western components, including the Kalibr, Iskander-M, Kh-101, and 9M727 cruise missiles, as well as the 9M549 guided artillery rocket. The Kalibr is used—or intended for use—by the Northern Fleet's Gorshkov frigates, Severodvinsk SSGNs, and Akula-class SSBNs, and was intended to be used by the Lider-class destroyers as well, if that project ever comes to fruition. As of September, Ukrainian intelligence estimated Russia had used 55 percent of its stockpile of guided missiles, though these are dated numbers associated with very

high uncertainty. The Ukrainians similarly assessed that Russia was down to only four dozen hypersonic missiles. Russia has in recent years often tested such missiles in the Arctic theater. It also had plans to deploy some, such as the Kinzhal missile, to the region. Without advanced and imported chips, Russia may not be able to fully build these stocks back up—though recent reporting from the New York Times indicates that the country may have some resilience in this regard. Nonetheless, given the likely shortfall at present, there may be a competition between missile needs in the Arctic and in other theaters like Ukraine.

To summarize, Russia's conventional land forces in the Kola Peninsula, including naval infantry and possibly special forces, are today depleted and substantially weakened. Russia's ability to successfully conduct a rapid conventional ground incursion toward its western neighbors in the Arctic is in the short term even more minimal than before the war. Its ability to do so in the medium and long term will depend on its ability to recruit new conscripts and train them for Arctic operations. There is also reason to think that the same issues relating to "low morale, poor execution of combined arms, subpar training, deficient logistics, [and] corruption" may bedevil Russian forces in the Arctic, as they have in Ukraine—though one should not underestimate Russia's potential to learn from its failures.

However, the toll from the Ukraine war is not necessarily reflected in the other service branches in the Russian Arctic. The naval components of Russia's Northern Fleet, particularly its strategic submarine fleet, continue to give Moscow a credible second-strike capability. One can also assume the same situation to be the case for Russia's strategic air force, as well as intelligence collection capabilities, special purpose ships and submarines, and other parts of the Kremlin's nonconventional power-projecting apparatus. As such, Russia's ability to threaten the West in the Arctic with naval and air assets in the short term has been affected less. Its ability to do so in the medium to long term will depend on how sanctions impact its defense industry: given the assets the Northern Fleet was due to receive that are in varying stages of development or construction, it may be supposed that the fleet will be somewhat less formidable in 5–10 years than it might otherwise have been if sanctions had never been imposed. One potential weakness is that precision munitions will be harder to come by for the entire Russian armed forces, to include some Arctic capabilities. This may make certain offensive measures against Arctic NATO allies less attractive, such as the scenario discussed in section one, wherein Russia may consider, in the early stages of a wider NATO-Russia conflict, using such munitions to strike at key targets inside of Norway, Finland, or Sweden. Russia's Arctic air defense capacity is hardly affected at all, except to the extent that the Pantsir system will become more difficult to replace. While Russia has other advanced air defense systems in the region, such as the S-300 and S-400, those are intended for long-range protection; the Pantsir is used for short-range base defense.

Section Three: Hybrid Threats in the Arctic

With the conventional thus accounted for, it must be further noted that other capacities, such as Russia's propaganda machine and "hybrid" tools of influence, also continue to work at full steam. Observations from NATO's northern flank suggest that campaigns where hybrid instruments play a role might be on the rise in Russia's northern neighborhood. However, as the term "hybrid" often lacks a clear definition, this conceptual aspect needs to be addressed before laying out some empirical observations of Russia's increasing use of a hybrid playbook.

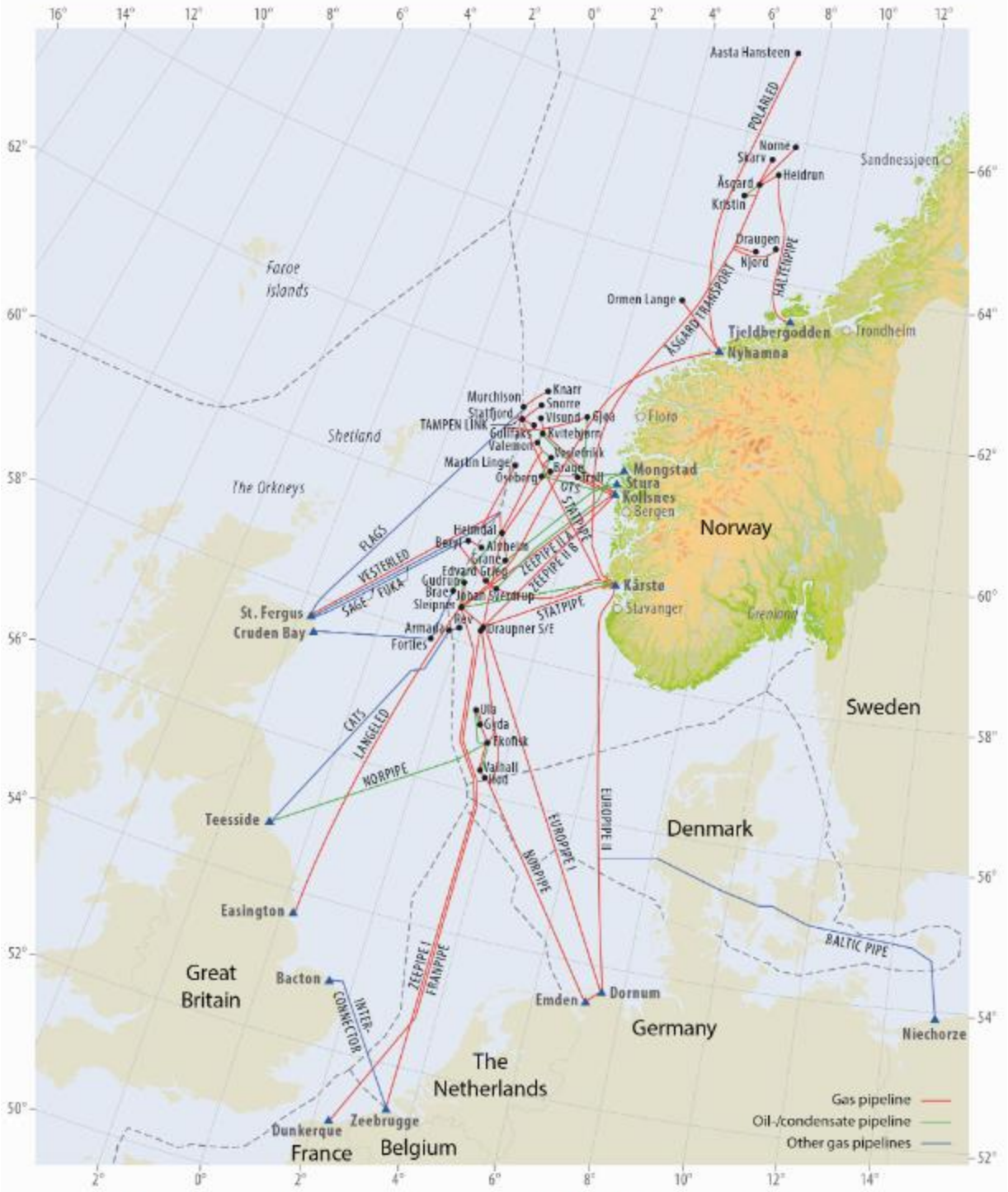
"Hybrid warfare" is a problematic term to define in a scientifically satisfactory way. It is often used interchangeably with "hybrid threats" or "hybrid influence," essentially being expressions for composite hostile activities in what has been described as the "gray" or "blurred zone" between peace and war. While it is hard to settle on a precise, commonly accepted definition, the connotation is nonetheless frequently used by policymakers, military experts, or in media when describing "gray zone events," or threats, that do not fit the traditional dichotomy of peace and war.

Building on the Multinational Capability Development Campaign's "Countering Hybrid warfare" project, in this publication we apply the term hybrid warfare to mean "the synchronized use of multiple instruments of power tailored to specific vulnerabilities across the full spectrum of societal functions to achieve synergistic effects." These instruments of power are also designed to be under the threshold of what is viewed as an act of war, hence not triggering an Article 5 response from NATO.

When scrutinizing recent events in the northern parts of NATO's area of responsibility, Norway stands out as a country where multiple hybrid threats seem to have been observed recently. During fall 2022, numerous unidentified drones have flown over or around important parts of Norwegian communication infrastructure, airports, or military facilities. In addition to these installations, large drones have also overflown oil and gas facilities, such as Kårstø, a crucial facility for processing and transporting gas out of Norway. The flying of drones also included illegal photographing on Svalbard, the remote Norwegian archipelago between the North Pole and the northernmost tip of mainland Norway. Suspicious activity also led to the arrest of no less than seven Russian citizens in a short amount of time in fall 2022 for illegal photographing across the country. At about the same time, the Norwegian Police Security Service arrested and charged an illegal Russian spy who was working under a fake identity as a researcher at University of Tromsø, Northern Norway. Of other earlier suspicious activities that have been reported by media, the Russian Orthodox Church's friendship visit from the Russian border city of Severomorsk to Kirkenes deserves to be mentioned. As the priests arrived on the visit, they displayed an unusual interest in studying the Kirkenes' water supply. However, the desired on-site study trip was canceled by the mayor of Kirkenes after discreet advice from the Chief of Police in Finnmark. Similarly, substantial parts of

eastern Finnmark in northern Norway have for several years been affected by the jamming of GPS signals. This electronic interference originates from Russia and is affecting various nonmilitary activities in Finnmark, such as civilian aviation. As of today, Norwegian Aviation Authorities report that “the jamming from Russia is more frequent than ever before.”

Figure 3: Pipelines on the Norwegian Continental Shelf



Source: "Oil Pipelines on the Norwegian Continental Shelf," Norwegian Petroleum Directorate, September 9, 2022

In the aftermath of the sabotage of the Nord Stream 1 and 2 pipelines in the Baltic sea, Norway's gas pipelines to Europe have been recognized as a "prime target for sabotage." This realization comes after years of reporting on consistent suspicious Russian activities in the Norwegian littorals, where key ports and subsurface cables and pipelines have drawn a lot of interest from Russian "research" or fishing vessels. Worrying reports, such as the cutting of a subsurface fiber-optic cable stretching from mainland Norway to Svalbard, as well as the damage of fiber-optic submarine cables near the Faroe and Shetland Islands, point to a pattern fitting the traits of hybrid warfare.

Given Russia's conventionally weakened capacity in the Arctic, and the high tensions between Russia and the West, it is reasonable that such hybrid campaigns might turn out to be the preferred Russian tool to target communities in its Arctic neighborhood in the future, at least for the short and medium term. While it is debated what the true intention of the abovementioned campaigns might be, the actual mapping of potential targets is one hypothesis, while other likely intentions might simply be the desire to create uncertainty and fear in the population or to signal Russian dissatisfaction with Western policies.

Section Four: Implications for NATO and the United States

First, Russia's capacity to project power into the North Atlantic Ocean from the Arctic seems unchanged. This was the only threat pertaining to the Arctic, or High North, that NATO allies agreed to put in the new 2022 Strategic Concept, and so it is especially notable. It was not specifically discussed in the U.S. Arctic strategy, but it is the United States, along with Canada, whose naval assets would need to cross the North Atlantic Ocean to reinforce European allies in an Article 5 contingent. Allied plans to invest in surveillance capabilities, especially radars in the area of the GIUK gap, will help mitigate this challenge.

Second, Russia's relative incapacity to threaten a conventional military land incursion into European Arctic allies will be welcome news to the Biden administration, whose recent strategic documents do not indicate a high prioritization of the region in terms of defense. Most notably, the NSS lists the Arctic last in its overview of regional policies. The strategy is cautious about promising U.S. presence in the Arctic, saying it will only be exercised "as required, while reducing risk and preventing unnecessary escalation." The U.S. National Defense Strategy mentions the Arctic fleetingly and is also cautious: "U.S. activities and posture in the Arctic should be calibrated, as the Department preserves its focus on the Indo-Pacific region." Its emphasis is on stability, homeland defense, and maritime domain awareness, and there is no language in the Arctic section about deterring threats to Arctic allies and partners. This language does appear in the U.S. Arctic strategy, which states, "We will deter threats to the U.S. homeland and our allies by enhancing the capabilities required to defend our interests in the Arctic." The document promises needed investments in domain awareness capabilities and

icebreakers. Still, it also emphasizes avoiding escalation and notably states that it "may be possible to resume cooperation under certain conditions."

Taken together, the three documents seem to indicate an administration that will take regional threats in the Arctic seriously and will likely continue to show occasional presence and participate in exercises, but that will prefer cautious actions so as not to threaten the relative stability of the region. Doing so allows the administration to focus on other geopolitical priorities, like China, and not excessively complicate other regional priorities like climate change research and economic development. One finding from this paper that may therefore be of interest is that there are indirect, light-touch ways to enhance Arctic security: effective imposition of the sanctions regime concerning dual-use computer chips seems to be one way to diminish the conventional Russian threat in the Arctic that does not involve deploying U.S. military assets or personnel to the region. If the administration is seeking to balance the need to protect allies and partners with a desire to not overly militarize the region, this could be notable.

Third, given the state of Russia's conventional armed forces, Russian aggression toward Arctic European states may continue to lean heavily on hybrid tools. There have been encouraging signs of a Western response to this, such as Norway's deployment of the Home Guard to protect critical infrastructure, and NATO allies' assistance to help them do so via increased allied ship patrols in the North Sea. Norway also recently adopted its annual Flotex naval exercise to include a component focused on protecting oil and gas installations. Even the U.S. Arctic strategy recognizes the challenge, promising to focus on "building the resilience of critical infrastructure," including against cyberattacks. This is a welcome recognition from the Biden administration of Russia's penchant for using hybrid tactics in the High North—however, the administration may not yet have fully recognized that this tool is likely becoming more attractive to Russia in the Arctic, relative to conventional force. NATO allies like Norway, and future members like Sweden and Finland, may need to further impress this probability on the United States and other allies at the NATO level.

Finally, it is probably too early to give an accurate and comprehensive estimate of the future Russian warfighting capability in the Arctic, given the impact of the Ukraine war. It would be prudent, however, given what is known and what is coming to light, to revisit assumptions that guided prewar analysis, campaign modeling, and wargaming concerning the region. Indeed, U.S. military doctrine is explicit that assumptions should be constantly reconsidered in light of new information, and NATO doctrine echoes this. As NATO's new Supreme Allied Commander Europe starts crafting the alliance's new regional defense plans, there is an opportunity to consider some of these preliminary findings in High North scenarios. In the meantime, the old saying, sometimes attributed to Winston Churchill, that "Russia is never as strong as she looks; Russia is never as weak as she looks," might be a

prudent approach for the West with respect to its security and defense planning in the Arctic.

"Joint Statement on Arctic Council Cooperation Following Russia's Invasion of Ukraine," US Department of State, 3 March 2022 [47] https://www.state.gov/joint-statement-on-arctic-council-cooperation-following-russias-invasion-of-ukraine/

Summary:

Canada, the Kingdom of Denmark, Finland, Iceland, Norway, Sweden, and the United States issue the following joint statement.

Current & Relevant Information:

Canada, the Kingdom of Denmark, Finland, Iceland, Norway, Sweden, and the United States condemn Russia's unprovoked invasion of Ukraine and note the grave impediments to international cooperation, including in the Arctic, that Russia's actions have caused.

We remain convinced of the enduring value of the Arctic Council for circumpolar cooperation and reiterate our support for this institution and its work. We hold a responsibility to the people of the Arctic, including the indigenous peoples, who contribute to and benefit from the important work undertaken in the Council.

The core principles of sovereignty and territorial integrity, based on international law, have long underpinned the work of the Arctic Council, a forum which Russia currently chairs. In light of Russia's flagrant violation of these principles, our representatives will not travel to Russia for meetings of the Arctic Council. Additionally, our states are temporarily pausing participation in all meetings of the Council and its subsidiary bodies, pending consideration of the necessary modalities that can allow us to continue the Council's important work in view of the current circumstances.

"Fears mount for the Arctic as cooperation with Russia stalls," Al Jazeera, 9 May 2023 [48] https://www.aljazeera.com/news/2023/5/9/fears-mount-for-the-arctic-as-cooperation-with-russia-stalls

Overview:

For nearly three decades, the Arctic Council has been a successful example of post-Cold War cooperation.

Its eight members, including Russia and the United States, have worked together on climate change research and social development across the ecologically sensitive region.

Now, a year after council members stopped working with Russia following its invasion of Ukraine and as Norway prepares to assume the chairmanship from Moscow on May 11, experts are asking whether the polar body's viability is at risk if

it cannot cooperate with the country that controls more than half of the Arctic coastline.

An ineffective Arctic Council could have dire implications for the region's environment and its 4 million inhabitants, who face the effects of melting sea ice and the interest of non-Arctic countries in the region's mostly untapped mineral resources.

The work of the council – made up of the eight Arctic states of Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and the United States – has produced binding agreements in the past on environmental protection and preservation.

It is also a rare platform giving a voice to the region's Indigenous peoples. It does not deal with security issues.

But with the end of cooperation with Moscow, about a third of the council's 130 projects are on hold, new projects cannot go ahead and existing ones cannot be renewed. Western and Russian scientists no longer share climate change findings, for example, and cooperation for possible search-and-rescue missions or oil spills has stopped.

"I am worried that this will really hobble the ability of the Arctic Council to work through these various issues," US Senator Angus King from Maine told the Reuters news agency.

Current & Relevant Information:

A divided region?

The Arctic is warming about four times as fast as the rest of the world.

As sea ice vanishes, polar waters are opening to shipping and other industries eager to exploit the region's bounty of natural resources, including oil, gas, and metals such as gold, iron and rare earth minerals.

The discord between Russia and the other Arctic Council members means that an effective response to these changes is far less likely.

"Norway has a big challenge," said John Holdren, co-director of the Harvard Kennedy School's Arctic Initiative and a former science adviser to US President Barack Obama. "That's how to rescue as much as possible of the Arctic Council's good work in the absence of Russia."

Russia argues this work cannot continue without it.

The council is weakening, Russian Arctic Ambassador Nikolay Korchunov told Reuters, saying he was not confident it "will be able to remain the main platform on Arctic issues".

Adding to the worries is the possibility that Russia will go its own way on issues affecting the region or even establish a rival council.

Recently, it has taken steps to expand cooperation in the Arctic with non-Arctic states. On April 24, Russia and China signed a memorandum establishing cooperation between the countries' coastguards in the Arctic.

Days earlier, on April 14, Russia invited China, India, Brazil and South Africa – the BRICS countries – to conduct research at its settlement on Svalbard, an Arctic archipelago under Norwegian sovereignty where other countries may operate under a 1920 Treaty.

"Russia is seeking to build relationships with some non-Arctic countries, particularly China, and that is a development that is concerning," said David Balton, executive director of the Arctic Steering Committee at the White House.

Korchunov said Moscow welcomed non-Arctic states in the region, provided they did not come with a military agenda.

"Our focus on a purely peaceful format of partnership also reflects the need of development of scientific and economic cooperation with non-Arctic countries," he said.

'I don't see an Arctic Council without Russia in the future'

Norway said it is "optimistic" a seamless transition of the chairmanship from Russia can be achieved because it is in the interest of all Arctic states to maintain the Arctic Council.

"We need to safeguard the Arctic Council as the most important international forum for Arctic cooperation and make sure it survives," Norwegian Deputy Foreign Minister Eivind Vad Petersson told Reuters.

That will not be easy, given Oslo's own strained relations with Moscow. In April, Oslo expelled 15 Russian diplomats saying they were spies. Moscow denied the accusations, and Korchunov said the expulsions undermined the trust needed for cooperation.

Analysts said NATO member Norway, which shares an Arctic border with Russia, is still well-placed to handle the delicate balancing act with Moscow.

"Norway has been the most outspoken when it comes to the possibility of keeping the door ajar so that Russia could, when politically feasible, be part of the Arctic Council again," said Svein Vigeland Rottem, a senior researcher in Arctic governance and security at the Fridtjof Nansen Institute in Oslo.

Indeed, lawmaker Aaja Chemnitz Larsen said, the council will eventually need to re-engage with Russia even if that moment has not yet arrived.

“I don’t see an Arctic Council without Russia in the future,” said Larsen, a Greenland lawmaker at the Danish Parliament and the Chairperson of Arctic Parliamentarians, a body of MPs from Arctic countries.

“We need to be prepared for a different time when the war [in Ukraine] one day will be over,” she said.

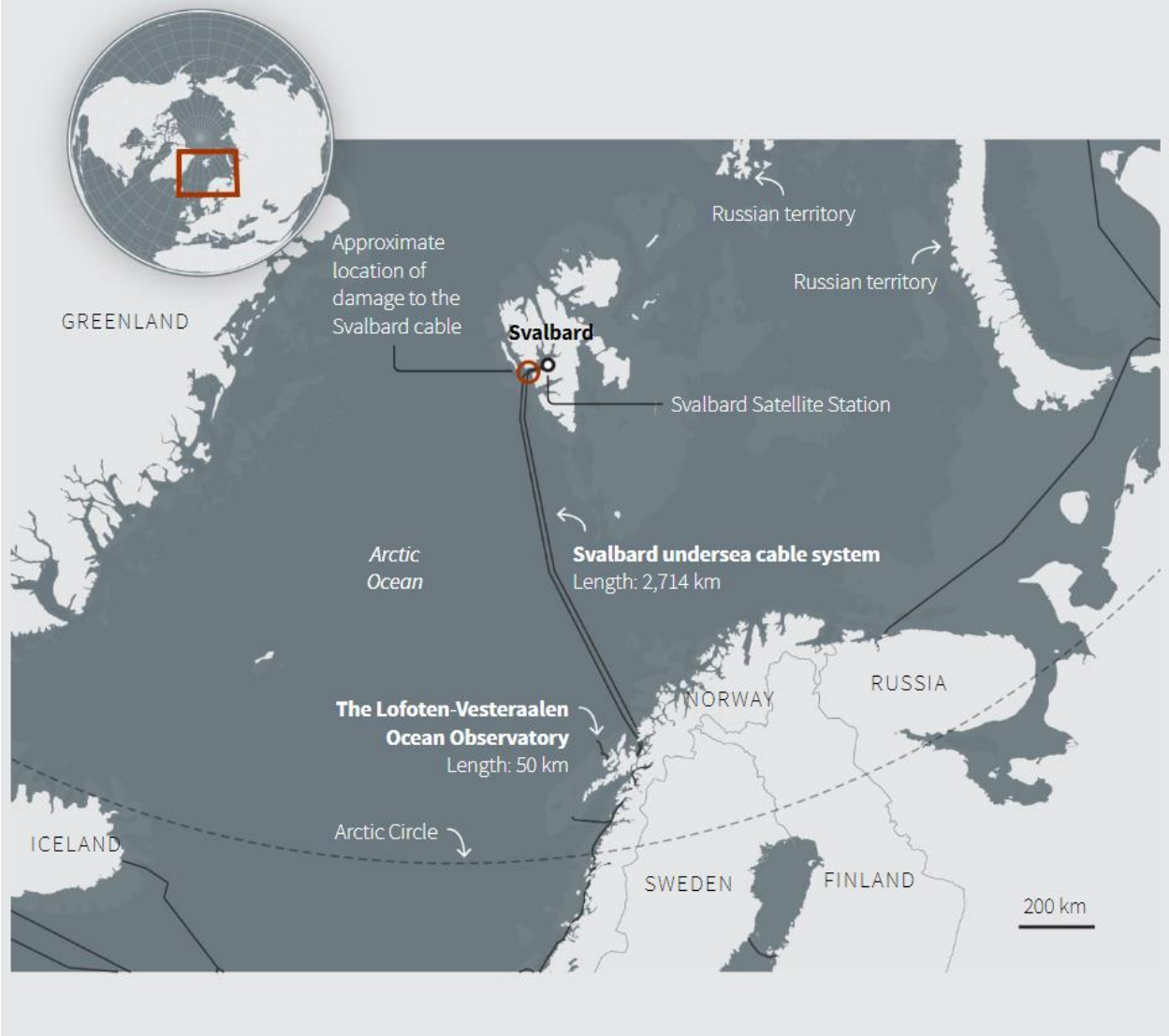
1. Military and Security:

“Dark Arctic: NATO allies wake up to Russian supremacy in the region,” Jacob Gronholt-Pedersen and Gwladys Fouche, Reuters, 16 November 2022 [49]
https://www.reuters.com/graphics/ARCTIC-SECURITY/zgvobmblrpd/

Overview:

The world’s largest satellite ground station, on the Svalbard archipelago off Norway, is used by Western space agencies to gather vital signals from polar-orbiting satellites. This January, one of two fiber-optic cables on the Arctic seabed connecting Svalbard to the mainland was severed. Norway was forced to rely on a back-up link.

In April 2021, another cable – one used by a Norwegian ocean research laboratory to monitor activity on the Arctic seafloor – was ripped away.

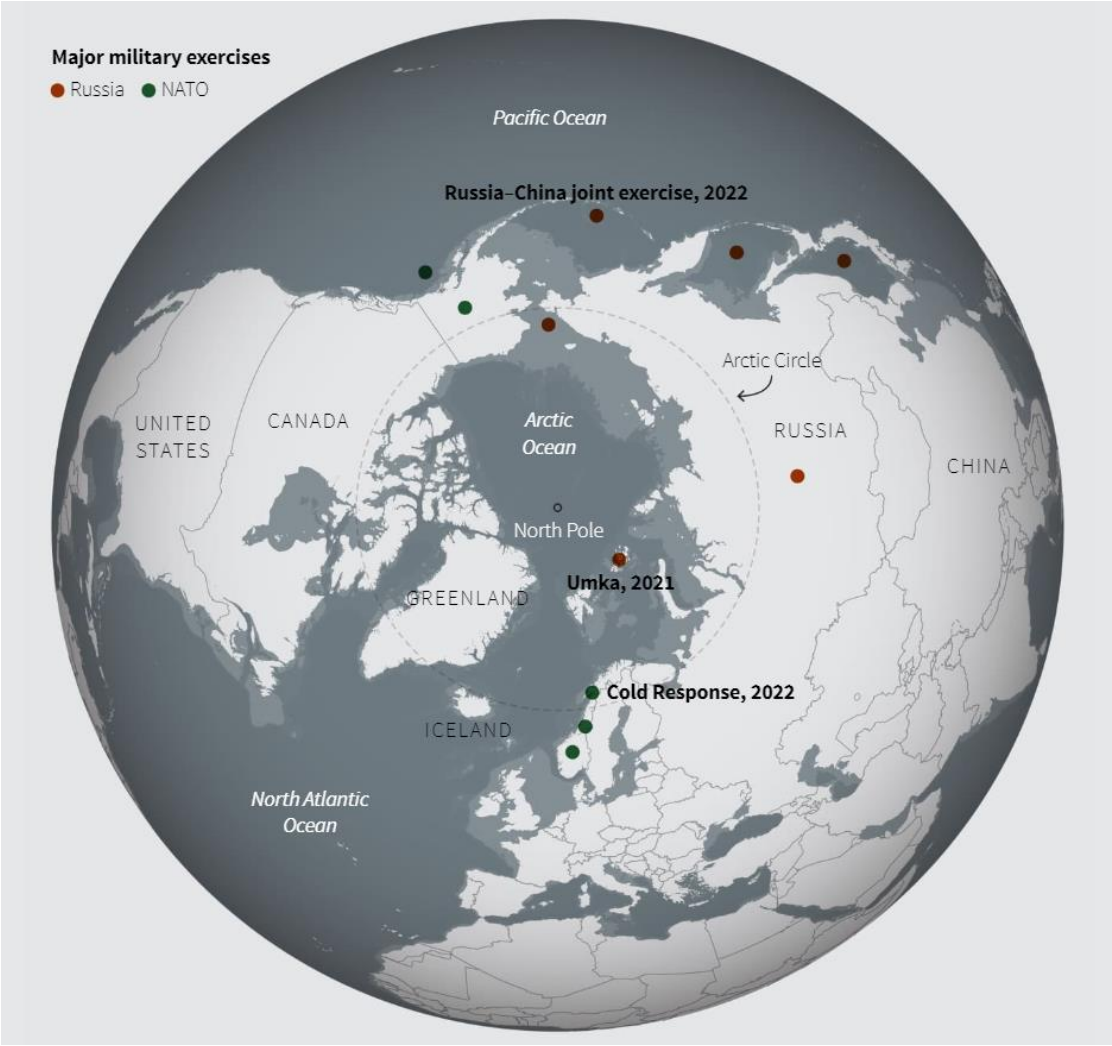


“This could have happened by accident,” Norway’s defense chief Eirik Kristoffersen told Reuters in response to the ruptures, which received little media coverage outside Norway. “But the Russians are capable of cutting cables.”

He was speaking generally and did not offer any evidence to suggest deliberate damage, but months later, in September, saboteurs caused major leaks to suddenly erupt in gas pipelines from Russia to Europe on the floor of the Baltic Sea. Russia’s defense ministry did not respond to a request for comment.

As Russia’s invasion of Ukraine ends a post-Cold War era of low tension and cooperation, such events highlight how hard it is for states to monitor their own waters – particularly in the Arctic, an ocean one and a half times the size of the United States, where satellites are crucial to allow real-time detection and monitoring of activity.

Over recent years, NATO allies and Russia have scaled up military exercises in the region; Chinese and Russian warships conducted a joint exercise in the Bering Sea in September. Norway raised its military alert level in October.



But the West trails Russia in military presence.

Since 2005, Russia has reopened tens of Arctic Soviet-era military bases, modernized its navy, and developed new hypersonic missiles designed to evade U.S. sensors and defenses.

Four Arctic experts say it would take the West at least 10 years to catch up with Russia's military in the region, if it chose to do so.

"The Arctic is currently a dark area on the map," said Ketil Olsen, formerly Norway's military representative in NATO and the European Union, who heads Andoeya Space, a Norwegian state-controlled company that tests new military and surveillance technologies and launches research rockets.

"It's so vast and with few civilian surveillance resources."

The chief of the U.S. Northern Command, General Glen VanHerck, told a Senate hearing in March the United States needed better Arctic “domain awareness” to detect and address Russian and Chinese capabilities to launch advanced missiles and destroy communications infrastructure. In a Pentagon strategy document released in October, the United States committed to improving early warning and surveillance systems in the Arctic, but the pace of the planned modernization is unclear.

At the same time, fast-rising temperatures are creating problems for some U.S. military infrastructure built on permafrost foundations, which are melting. Coastal erosion could also impact U.S. radar sites, the Pentagon says.

There are few risks in the near term, U.S. officials and military analysts say: The West is far stronger than Russia in conventional forces and Russia’s limited success in Ukraine exposed weaknesses many in the West had not expected.

Russia’s military efforts are currently mostly focused on Ukraine, leaving “very limited strength of personnel on the army side” in the Arctic Kola Peninsula, which is home to its Northern Fleet navy and nuclear submarines, according to Kristoffersen.

U.S. missile defenses are designed to defend against a limited attack from a rogue state, and the United States has expressed confidence in its ability to deter a nuclear attack by Russia or China. But insufficient visibility in the Arctic could limit U.S. response time in a crisis, a situation VanHerck and other officials want to avoid.

“What you can't see and what you can't determine, you can't defend from," VanHerck told the Senate.

Police investigating the Norwegian cable ruptures interviewed the crew of Russian fishing trawlers that had been nearby, but dropped the investigations without charge for lack of evidence of what happened; the government said it brought forward a planned upgrade of the back-up line.

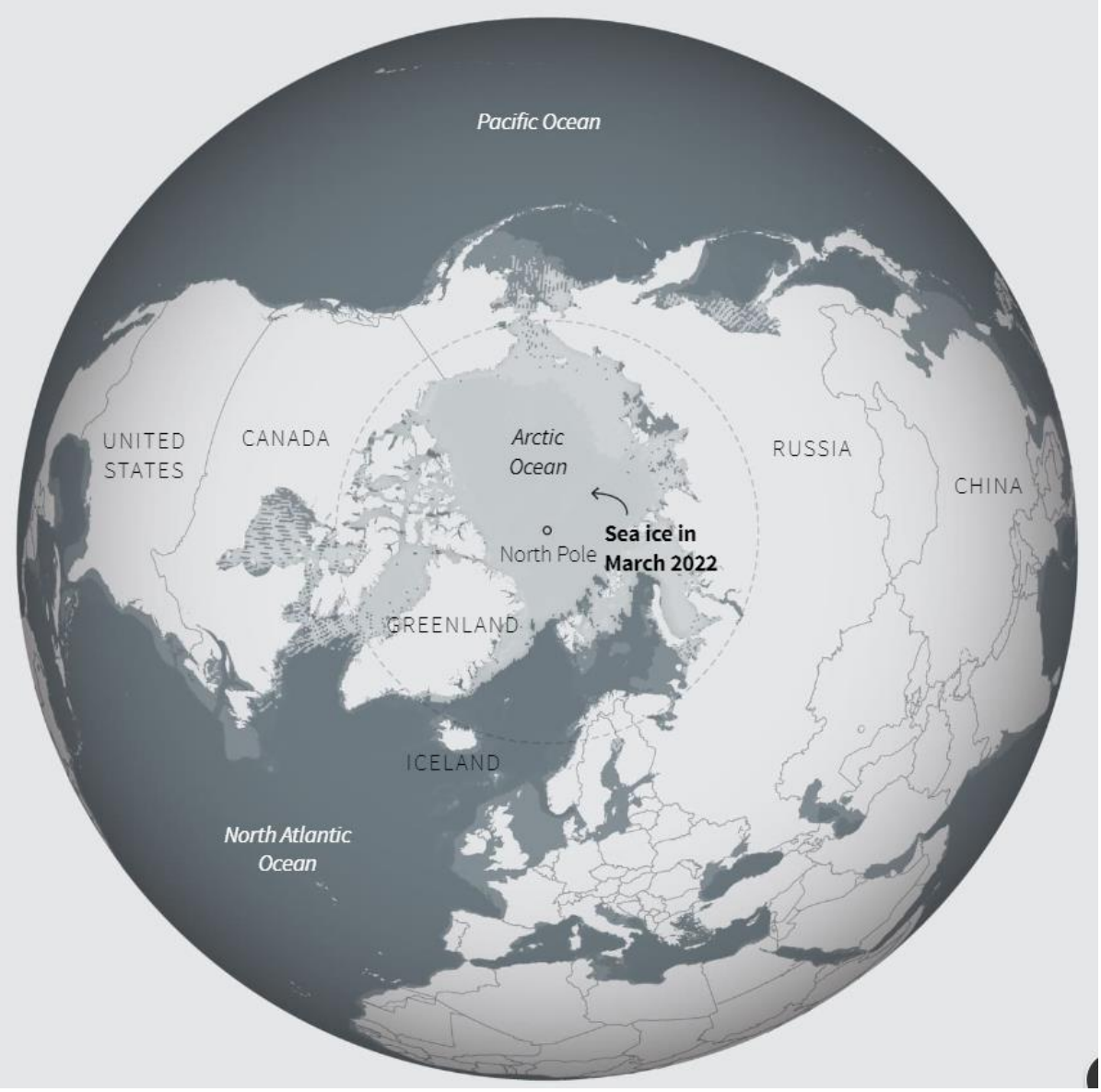
If a sabotage attack were to happen in Norway, it would likely be difficult to hold anyone accountable for it, Hedvig Moe, deputy head of Norway’s PST police security service, told Reuters. “We call it a deniable attack in our world,” she said.

“NATO is increasing its presence in the Arctic with more modern capabilities,” NATO chief Jens Stoltenberg told Reuters. “This is of course a response to what Russia is doing. They have significantly increased their presence … and therefore we also need greater presence.”

Current & Relevant Information:

Tensions

As a shrinking ice cap opens up new sea lanes and resources, the Arctic is becoming strategically more important.



Parts are accessible in a few months in summers as the sea ice melts, unlocking opportunities.

A couple of sea routes are in use.

The Northern Sea Route runs along Russia's northern coast from the Bering Sea to the Barents Sea. Russia aims to develop this for shipments from Asia to Europe.

The Northwest Passage, on the other side, is less frequently travelled.

For Russia, vast oil and gas resources lie in its Arctic regions, including a liquefied natural gas plant on the Yamal Peninsula.

The shortest path by air to North America for Russian missiles or bombers would be over the North Pole.

The waters between Greenland, Iceland and the UK - known as the GIUK Gap - are the only way Russia's northern-based ships can reach the Atlantic.

For the NATO allies, the GIUK Gap is crucial for links across the North Atlantic.

There are oil and gas fields too: Norway is now Europe's largest gas supplier.

If Sweden and Finland join the Alliance, seven out of eight Arctic countries will be members.

Also at risk today are communications cables and satellite systems including the global positioning system (GPS) linking both civilian and military users, Andrew Lewis, former commander of NATO's Joint Task Force in Norfolk, Virginia, told Reuters.

In July, President Vladimir Putin launched a new naval strategy pledging to protect Arctic waters "by all means."

Russia usually tests its nuclear deterrent in the Arctic in the autumn. This year, that happened on Feb. 19, five days before its Ukraine invasion.

"This was of course a signal," said Norway's defense chief Kristoffersen.

Diplomacy in the region was thrown into disarray in March when seven members of the Arctic Council, a forum for international cooperation, said they would boycott talks in Russia, which currently holds the body's chairmanship.

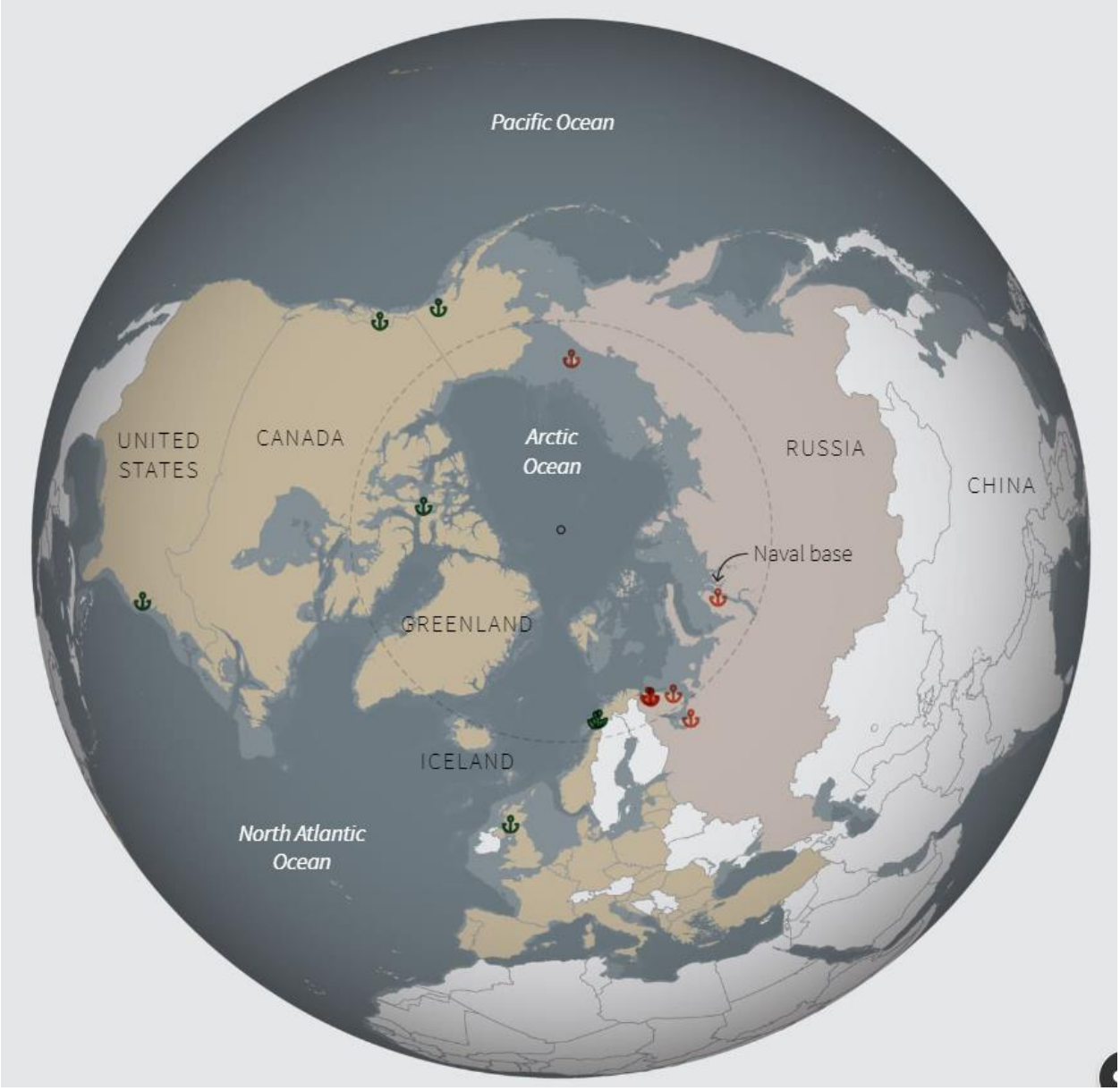
An incident on Oct. 15 underlined the sharpening tone. In a speech at an Arctic forum in Iceland, the chairman of NATO's military committee, Rob Bauer, criticized China for not condemning Russia's invasion of Ukraine. China calls itself a near-Arctic state and Beijing's envoy to Reykjavik, He Rulong, was in the audience.

He stood up and said Bauer's speech was "full of arrogance" and "paranoid," accusing him of heightening tensions. NATO and the Chinese embassy in Iceland declined to comment on the exchange.

Russia's dominance

"At the moment, the military balance in the Arctic is heavily weighted towards Russia," said Colin Wall, research associate at Center for Strategic and International Studies in Washington.

Russia's bases inside the Arctic Circle outnumber NATO's by about a third, according to data compiled by the International Institute for Strategic Studies (IISS) and Reuters.



Russia has invested heavily in ports, infrastructure and vessels to develop and protect the Northern Sea Route. Last year, it upgraded the Northern Fleet to make it the country's fifth military district.

A string of new and upgraded Soviet-era air strips along its northern coast has improved Russia's ability to operate in the Arctic. In March 2021, a pair of MiG-31 fighter jets made a demonstration flight from Nagurskoye, its northernmost base, to the North Pole and back.

Russia also has more ground-force bases than NATO within the Arctic Circle.

According to the IISS, several non-operational bases on both sides could host military assets in the future or be logistically relevant in a conflict. More of these are on the Russian side.

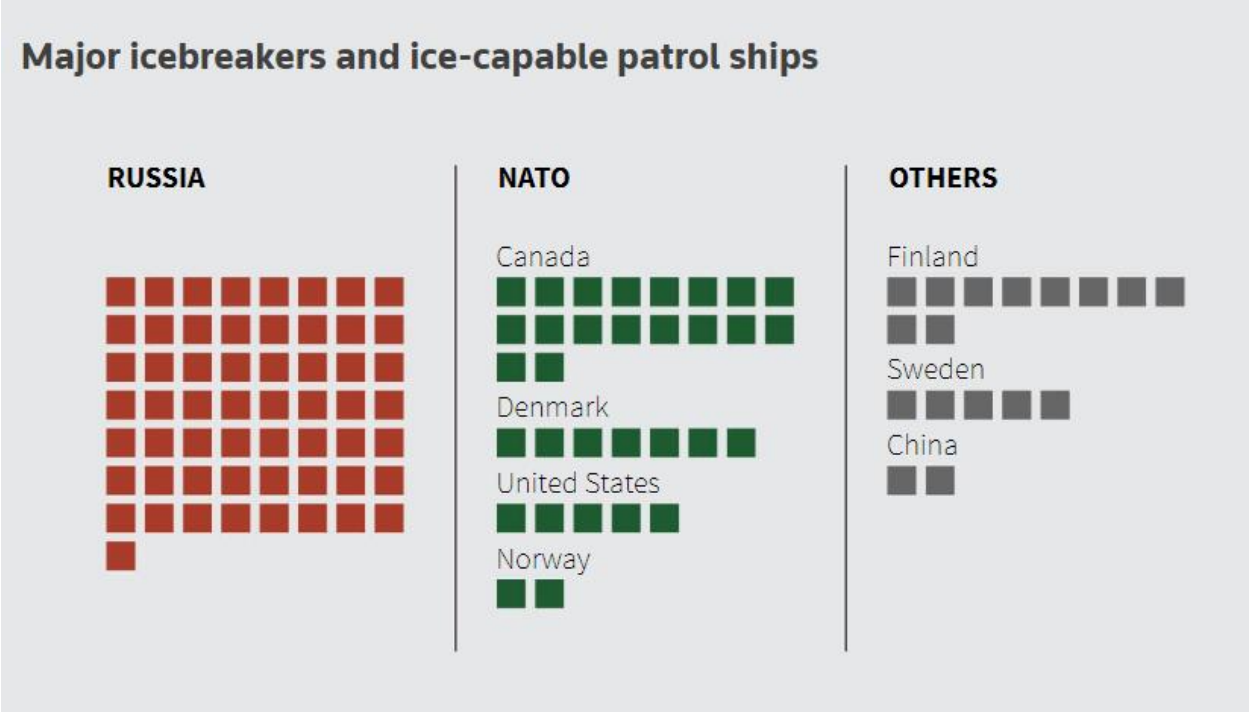
Russia now has 11 submarines capable of launching long-range nuclear weapons for use in an all-out nuclear war, eight of them based in the Arctic Kola Peninsula, according to the IISS. NATO has 22 between the United States, France and the UK.

In July, Russia's navy took delivery of a new submarine, Belgorod, which can carry the Poseidon torpedo, a new, nuclear-armed stealth torpedo designed to sneak past coastal defenses by travelling along the seafloor. Russian state media have said Poseidon could cause a giant tsunami that would turn the coastline into a "radioactive desert."

Moscow also has over the last two years tested a hypersonic glide missile, Zircon, which Putin said in 2019 can reach nine times the speed of sound, making it the world's fastest. In February, it said the missile was launched in the Arctic waters between mainland Norway and Svalbard.

"We are starting serial production of Zircon missiles, and we have actually put it into service," Defense Minister Sergei Shoigu was quoted as saying by military news outlet Zvezda on Aug. 20. Russia's defense ministry did not respond to a request for more details.

Russia's icebreaker fleet vastly outnumbers those of other nations, according to the IISS. Official data shows it has seven nuclear-powered icebreakers and around 30 diesel-powered ones. The United States and China each have two diesel-powered icebreakers in operation.



Icebreakers play a limited role in military operations, but they are necessary to maintain an Arctic presence.

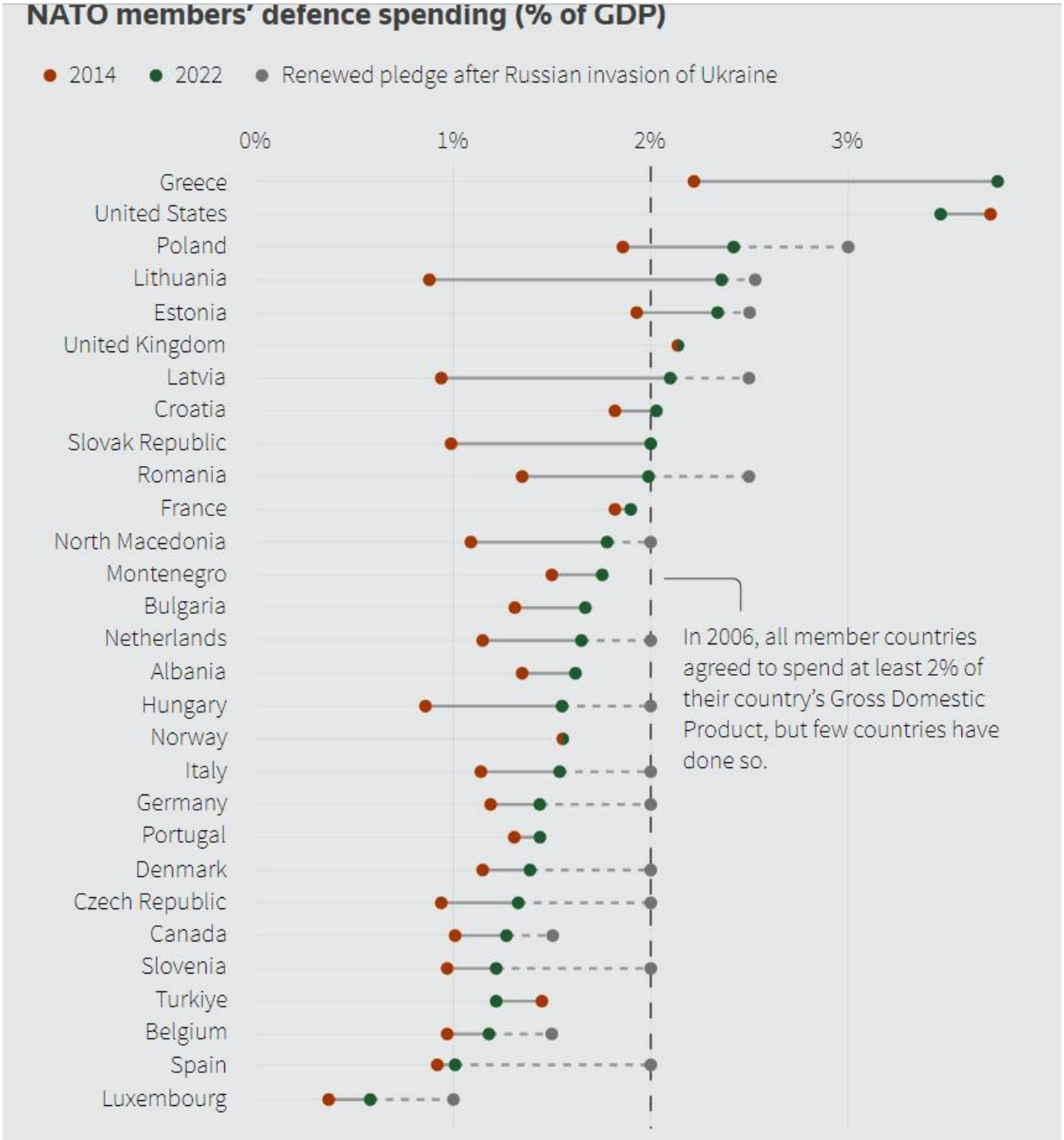
NATO invests

For decades, Arctic NATO allies stuck to a belief that conflicts with Russia would not spill over into their region: With overall defense budgets capped, investments in military hardware and surveillance and communication capabilities were often considered too expensive.

Now NATO and Arctic allies are changing their stance.

Since Russia launched its “special operation” in Ukraine, Canada has pledged to boost military spending by some C$13 billion ($10 billion) including an upgrade of an early warning radar system with the United States, the North American Aerospace Defense Command, or NORAD, and new surveillance planes capable of detecting submarines.

The first planes will be delivered in 2032. Given the challenges of the harsh environment, it will take decades to be ready, Canada’s Chief of Defense Staff General Wayne Eyre told a parliamentary committee in October.



Eyre says one reason NORAD's research and development component needs modernizing is to track hypersonic missiles better.

"That is of great concern – the ability to detect hypersonics coming from any country – and we've seen some technological advances from some of the competitors out there," Eyre told reporters in November.

He said it was difficult to judge the effectiveness of Russia's hypersonic missiles based on those used in Ukraine, because the distances in Ukraine were far shorter than any that could be used to target North America.

Since 2020 a joint force command in Norfolk, Virginia in the United States has been monitoring the Atlantic, but the Atlantic Council, a U.S. think tank, says there are not enough satellites above the North Pole to give a complete picture. General VanHerck said in May that the military is testing some of the hundreds of polar-orbiting satellites launched in recent years by commercial providers SpaceX, owned by Elon Musk, and Britain's OneWeb.

The U.S. military says it is planning "major investment upgrades" at a U.S. base at Thule, Greenland to fix ageing infrastructure. A U.S. delegation travelled to Greenland in May to explore radar locations, a diplomatic source told Reuters.

Sweden and Finland have begun investing in surveillance and deterrence capabilities and military hardware including jets so their air forces can fight alongside Arctic NATO allies. Denmark has set aside some $200 million to improve its Arctic military capabilities, including satellites and surveillance drones capable of flying up to 40 hours, and is reopening a Cold War era radar on the Faroe Islands between the UK and Iceland.

Norway, whose maritime areas spread across 2 million sq km (770,000 square miles), has four satellites to help monitor the Arctic. It is launching four more, two in 2023 and two in 2024. It is also investing $35 million in Andoeya Space to set up a spaceport. Sweden and Canada are also planning Arctic spaceports.

Andoeya Space is a partner in an Arctic surveillance and sensing project led by U.S. aerospace company Boeing Co. Based on satellites, unmanned aircraft, drones, ships and unmanned submarines developed for the Arctic environment, the project - under development since 2018 - says it is ready to offer NATO allies real-time updates in the north, including surveillance of enemy vessels, aeroplanes and submarines.

The U.S. Department of Defense is installing a long-range radar system allowing satellites and other ground-based radars to work together in Alaska that it says will "be able to address hypersonic missiles in future configurations." It is due for completion in 2023, but the Missile Defense Agency declined to comment on whether it would be able to intercept the Zircon.

More answers may come in a stand-alone Arctic strategy document the Pentagon is expected to publish next March, a U.S. military official said, in what would be the first update since 2019. It would come as the Pentagon tries to better define what capabilities are needed for American warfighters at dangerously low temperatures.

"When it's dark all the time in the winter and it's 50- to 60-below-zero or even more, it is just brutal," the official told Reuters.

"Russia's Military Posture in the Arctic: Managing Hard Power in a 'Low Tension' Environment," Mathieu Boulègue, Chatham House: The Royal Institute of

International Affairs, June 2019 [50] https://www.russiamatters.org/analysis/russias-military-posture-arctic-managing-hard-power-low-tension-environment

Summary:

• Russia's military posture in the Arctic is informed by the changing geopolitical environment, and can no longer be considered in isolation from the country's growing tensions with the West. In this sense, the period of 'Arctic exceptionalism' – in which, by convention, the region has been treated as a zone of depoliticized cooperation – is coming to an end.

• Certainly, the Russian Arctic is not exceptional for Moscow in military-operational terms. Russia's leadership has accorded the same threat perception to the Arctic as it has to other theatres of operation. It seeks consistent control over foreign military activity in the Russian Arctic, and ensured access for Russian armed forces, particularly the Northern Fleet. Russia's military build-up in the Russian Arctic and the Kremlin's intentions are, at least for now, defensive in nature.

• Russia's military build-up in the Arctic Zone of the Russian Federation (AZRF) primarily aims to ensure perimeter defense of the Kola Peninsula for the survivability of second-strike nuclear assets. Russia's 'Bastion' defense concept consists of the projection of multi-layered sea denial and interdiction capabilities.

• Another Russian priority is to ensure the Northern Fleet's access to, and passage along, the Northern Sea Route (NSR) from the Atlantic Ocean to the Pacific Ocean. This has hitherto been achieved through military infrastructure along the NSR. However, due to the receding ice, Moscow will seek to enforce 'border control' over a larger portion of its Arctic area in the future. The revamping of dual-use border control infrastructure and facilities is deemed a priority for safeguarding Russia's vision of national security in the AZRF.

• Since the mid-2010s, Russia has deployed substantive force and capabilities along its northern border in the AZRF. Parts of the armed forces, such as the Arctic Brigade, are now Arctic-capable and have developed concepts of operations tailored to that environment. The Northern Fleet has been repurposed with the Arctic environment in mind, and has been provided with Arctic-specific military technology and training.

• Russia acts as a status quo power and a reluctant rule-follower in the Arctic, partly because international law there plays in its favor, and partly because it is in Russia's interest to do so. Despite growing tension, cooperation between Russia and other Arctic nations is likely to endure.

• Russia's military leadership rules out starting a conflict in the Arctic, and would push any Arctic-based conflict towards sea lines of communication between the North Atlantic and the Baltic Sea. However, the risk exists of escalation and miscalculation around incidents at sea.

• In dealing with Russian ambition in the region, Western military and policy planners should seek to maintain the convention of treating the Arctic as a ‘low tension’ area. However, planners must also acknowledge the existence of pressing military security issues in the wider Arctic. A more inclusive debate and the establishment of a regulatory framework around military security in the Arctic would be useful. As Russia will chair the Arctic Council and the Arctic Coast Guard Forum between 2021 and 2023, this is a window of opportunity to address military security in the region.

• Innovative efforts can be made to strengthen military security and domain awareness in the region, without militarizing the issue. This should start with the creation of a military code of conduct for the High North. This would send a powerful signal that cooperation should remain an absolute priority for all Arctic states, and that maintaining the region’s ‘low tension’ status requires action, not just words.

Current & Relevant Information:

Introduction

Ever since Mikhail Gorbachev’s ‘Murmansk speech’ in 1987, in which he defined the Arctic as a ‘zone of peace and cooperation’, the region has been widely understood by coastal states to be an area of ‘low tension’. In other words, it has been seen as a place where great-power politics between coastal states should be set aside and replaced with practical, depoliticized cooperation.

However, the Arctic is not insulated from global security challenges, especially those around the impacts of climate change. ‘Arctic exceptionalism’ is coming to an end. Despite its unique geography, the Arctic does not exist in isolation from the wider international context, or away from the pressures around the strained relations between Russia and the West.

After the fall of the Soviet Union, the Kremlin paid little attention to the Arctic. During the 1990s, the Russian Arctic was at best considered a burden fraught with socio-economic problems. Little was done there until an ‘Arctic revival’ began in the 2000s, focused on reinvesting in a region that had previously been abandoned for more than 15 years. Russia has been described as a ‘confused Arctic superpower’, balancing cooperation and competition with other Arctic nations as part of its efforts to reassert its role as a great power.

Moscow’s intentions for the Arctic are not Arctic-specific, but are related to the Kremlin’s global ambitions for reviving Russia as a great power. Russia’s force posture in the Arctic is informed by the changing geopolitical environment around its strained relations with the West. This explains why growing tension with the West and the risk of miscalculation could lead to a more assertive Russian posture in the Arctic in the future.

What happens militarily in the Russian Arctic has little to do with the region itself. In that sense, the Russian Arctic is not exceptional for Moscow in military-operational

terms. The leadership has accorded the same level of threat perception to the Arctic as it has to other theatres of operation regarding NATO and the West. For the Kremlin, the Arctic is fundamentally Russian – especially since the four other coastal nations are NATO members.

This paper focuses on Russia's military posture, force structure and military intentions in the Russian Arctic. It seeks to demystify Moscow's military build-up in the region: it explains that if Moscow is indeed militarizing the Russian Arctic, the military build-up and the Kremlin's intentions are, at least for now, defensive in nature.

A further section deals with the implications of Russia's Arctic military posture for NATO and its key partners in the region, Sweden and Finland, arguing that all of these actors should address the issue of Russia's increased military presence now. The paper also presents policy-relevant recommendations for NATO and its partners regarding military security in the Arctic.

In terms of geography, the paper considers the Arctic Zone of the Russian Federation (AZRF), from its territorial sea to the extended continental shelf. The analysis covers both the 'High North' (namely the European Arctic, where NATO and its Nordic partners are concerned with Russia's presence) and the Pacific or 'North American' Arctic. The term 'Arctic Eight' refers to eight nations, consisting of a core of five 'coastal' states (Russia, the US, Canada, Denmark and Norway) plus three 'non-coastal' states (Iceland, Sweden and Finland) – the latter being states that are not bordering the Arctic Ocean.

Conclusion

It is no longer quiet on the Northern Front. Because climate change is not a linear process, annual variations in the extent of ice floes will be unpredictable, and this will have an impact on coastal states in unprecedented ways. The Arctic today will not be the same as the Arctic that Russia and other coastal states will experience by the 2040s and 2050s, when the Arctic Ocean will be navigable.

It seems that the golden era of 'low tension' is slowly coming to an end: the Arctic is now a place of growing military security wariness, albeit with enduring scope for cooperation. It is time to puncture the myth of 'Arctic exceptionalism' and recognize that the region can no longer be insulated from the broader military security context.

It is yet to be determined whether Arctic nations will continue their cooperative course, or whether strategic competition will increase in the polar seas. Just as space conquest was a venting mechanism for great-power competition during the Cold War, the Arctic could very well become the arena for the new 'Great Game' of the 21st century.

Arctic matters will remain on the Russian policy agenda and will outlast the tenure of President Vladimir Putin. The nature of economic and military activities, however,

will depend on how the Kremlin manages to turn political and symbolic rhetoric into economic dividends. In the future, this could push Moscow into altering, to an extent, its cooperative approach with other Arctic nations. This would have serious security implications. Although not a given, military build-up could very well become an escape strategy for the Kremlin, or even potentially an end in itself. The 'militarization' of the Russian Arctic, for now defensive in nature, would then have a more offensive contour in respect of NATO and its partners.

So far, Russia has been acting as a status quo power and a reluctant rule-follower in the Arctic, partly because international law plays in its favor, and partly because the Kremlin values a cooperative stance and it is in its interest to preserve the current arrangements. Despite growing tension, cooperation is likely to endure. For the West, working continuously with Russia, especially on military security affairs, will avoid transferring the current security tensions into the Arctic.

Russia will chair the Arctic Council and the Arctic Coast Guard Forum (ACGF) between 2021 and 2023, taking over from Iceland. There might now be a window of opportunity to prepare the ground for a more inclusive debate around military security in the region. This would send a powerful signal that cooperation should remain an absolute priority for all Arctic states, and that maintaining the 'low tension' status takes action, not just words.

"Climate Change, Chinese and Russian Military Activity Increase Risk in the Arctic," Kylie Bielby, Homeland Security Today, 25 September 2023 [51]
https://www.hstoday.us/subject-matter-areas/climate-security/climate-change-chinese-and-russian-military-activity-increase-risk-in-the-arctic/

Overview:

According to the U.S. Army's Arctic strategy, Russia seeks to consolidate sovereign claims and control access to the region while China aims to gain access to Arctic resources and sea routes to secure and bolster its military, economic, and scientific rise.

Current & Relevant Information:

In the Arctic, warming temperatures and melting sea ice have opened new shipping routes but have also increased climate risks and international economic competition. Addressing these issues is a strategic priority for the U.S. government.

By virtue of Alaska, the United States is an Arctic nation and consequently has substantial interests in the region. As the Arctic warms twice as rapidly as the rest of the world, the effects of climate change have driven increasing interest and activity in the region in recent years and these climate effects have been far-reaching. Reports have documented the global implications of the widespread changes occurring in the Arctic. For example, scientists at Department of Energy's Pacific Northwest National Laboratory found that declines in Arctic sea ice during the

summer months are linked to increases in autumn wildfires over the western United States.

In addition, there has been an escalation of great power competition between the U.S., Russia, and China, which seeks Arctic resources, among other things. Both Russia and China have developed Arctic strategies with geopolitical goals contrary to U.S. interests. According to the U.S. Army's Arctic strategy, Russia seeks to consolidate sovereign claims and control access to the region while China aims to gain access to Arctic resources and sea routes to secure and bolster its military, economic, and scientific rise.

In September 2022 and August 2023, the U.S. monitored Chinese and Russian military vessels conducting joint exercises off the coast of Alaska in the Bering Sea and near the Aleutian Islands, respectively. These activities have introduced tension into the Arctic's geopolitical environment.

In October 2022, the federal government published an updated Arctic strategy that serves as a framework for guiding its approach to addressing emerging challenges and opportunities in the Arctic. The strategy identified four priorities spanning domestic and international issues: security, climate change and environmental protection, sustainable economic development, and international cooperation and governance.

While many federal entities engage with foreign partners on Arctic issues, the Department of State serves as the lead for Arctic diplomacy efforts. The Biden administration announced that an existing Arctic coordinator position at State would be elevated to an Ambassador-at-Large position in August 2022, but the nominee has yet to be confirmed. State Department officials told a Government Accountability Office (GAO) review earlier this month that discussions regarding the new position are continuing internally and that the department is in the process of developing the final details of the Ambassador's role. The officials said the Ambassador position will be located in the Office of the Secretary, and will report to the Secretary or the Secretary's designee.

U.S. and foreign stakeholders have previously identified factors that may help advance U.S. priorities, such as creating the Ambassador position, as well as providing scientific and other expertise at the Arctic Council—a forum that promotes cooperation among Arctic countries. But GAO found that challenges in interagency coordination and other areas may make some U.S. priorities harder to achieve.

Stakeholders told GAO of five factors that facilitate and five factors that hinder the federal government's management of U.S. Arctic priorities. For example, stakeholders identified U.S. Arctic expertise and engagement as factors that facilitated its influence in the Arctic Council. However, some stakeholders said that the Arctic Executive Steering Committee and the broader federal government face various challenges related to interagency coordination that hinder implementation of

U.S. Arctic priorities outlined in the 2022 strategy. They added that limited engagement with Alaskans, coordination obstacles, and budget uncertainties also impact efforts.

The stakeholders identified three factors pertaining to State's structures that facilitated and two factors that hindered State's management of U.S. Arctic priorities. For example, stakeholders identified continuity within the Senior Arctic Official position and supporting office as a factor that has deepened institutional knowledge for Arctic Council work, facilitating efforts to promote U.S. priorities. However, some stakeholders identified gaps in leadership and limited convening authority as factors that had hindered management. Many stakeholders viewed the announcement of the Ambassador-at-Large for the Arctic Region position positively but identified elements State and the new Ambassador should consider to manage U.S. Arctic priorities successfully going forward. These elements include consistency in position and title, a formalized office structure, clarity of Ambassador's role within the department, and greater authority to coordinate with all the relevant bureaus across the department.

In their discussions with GAO, some stakeholders questioned Americans' awareness of Arctic issues and said that the U.S. government and public may need a greater appreciation of the region to fully support the implementation of the Arctic Strategy. One also questioned the federal government's understanding of the region, noting that some federal agencies with regional offices that cover Alaska are based in Denver or elsewhere. However, other stakeholders noted that recent increased attention to Arctic issues from policymakers and federal entities has been helpful. For example, one of these stakeholders said that attention from the White House and the Senate has helped to advance the U.S. Coast Guard's Polar Security Cutter Program, which will enable the United States to increase its maritime presence in the Arctic.

Read the full report at GAO

"How Russia's Future With NATO Will Impact the Arctic," Christian Perez, FP Analytics, 2023 [52] https://foreignpolicy.com/2022/02/25/arctic-ukraine-russia-china-eu-invasion-nato/#:~:text=Armed%20conflict%20threatens%20longstanding%20Arctic%20cooperation&text=Since%202014%2C%20Russia%20has%20built,most%20recently%20in%20January%202022.

Overview:

Three critical ways the crisis in Ukraine will determine the region's future.

The geopolitical importance of the Arctic region is coming back into focus as Russian troops further encroach into Ukraine. The Russian invasion is further deteriorating relations and highlighting critical fault lines between Russia and NATO-

allied states. In determining their response to Russian aggression, NATO allies are weighing key considerations, including the various impacts from the potential use of force, balancing the use of sanctions with Europe's reliance on Russian energy supplies, and addressing Russia's strengthening ties with China.

The Arctic region is set to play a key role in each of these considerations. Abundant natural gas and energy reserves are concentrated in Russian Arctic territory, which European countries are highly dependent on for their energy supply. Meanwhile, Russia has made the Arctic a focal point of its military modernization efforts, leading to a steady buildup of Russian and NATO forces throughout the region. The widespread military buildup since 2007 amplifies the potential for a conflict between Russia and NATO-allied states to spill over into the region. Armed conflict in the Arctic could permanently damage regional cooperation, compromising coordinated efforts, dating back to 1996, among the Arctic states (Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, and the U.S.) in search-and-rescue operations, environmental protection, and prevention of illegal fishing, among other issues. President Putin is also leveraging Arctic resources to strengthen his hand elsewhere, including deepening connections with China by announcing renewed cooperation in the Arctic and signing a new 30-year agreement on energy exports in early February.

As the Ukraine crisis evolves, the Arctic's role and the impact the crisis could have on the region are broken down below.

Current & Relevant Information:

Armed conflict threatens longstanding Arctic cooperation

Today, the Arctic is the only region where Russia has military and strategic supremacy, and as the ongoing crisis in Ukraine escalates, it brings with it increased risk for conflict in the Arctic. Since 2014, Russia has built over 475 new structures across its Arctic military strongholds and has conducted extensive military exercises, most recently in January 2022. Both Russian and NATO troops are currently stationed in close proximity throughout the region and have conducted war games in the same geographic vicinities, such as the Norwegian Sea. As the situation along the Ukrainian border escalates tensions between NATO allies and Russia, the fallout from a miscalculation across a militarized Arctic could become severe.

Since Russia's 2014 annexation of Crimea, the Arctic has served as one of the key arenas in which cooperation among the U.S., Russia, and other Arctic nations has continued to progress. However, an escalation of the Ukraine conflict could limit communication between Russia, the U.S. and other Arctic states and undercut coordination on common regional interests. Additionally, a breakdown in communication between Russia and other Arctic nations would further heighten the risk of a miscommunication between Russian and NATO forces stationed across the region.

The emergence of a conflict would risk not only ending cooperation in key areas across the Arctic, but also potentially fraying the Arctic's existing patchwork governance structure. Arctic governance, as currently constructed, consists of various national standards, laws, and treaties, with the Arctic Council serving as the most comprehensive governance forum. These forums have played a critical role in improving relations between Russia and NATO-allied states in the past—for example, after the Russo-Georgian war in 2008, cooperation in the Arctic helped normalize relations between Russia and the other Arctic states. In contrast, the former Arctic Chiefs of Defense Forum, the main venue for security dialogues with Russia in the Arctic, was suspended in 2014 after Russia's annexation of Crimea. The remaining governance structures are meant to facilitate cooperation among Arctic nations and indigenous groups on small-scale regional issues, not contain great power competition or resolve armed conflicts. An escalation of the current crisis in Ukraine will provide a major test for Arctic governance structures and determine, in part, the extent of future coordination with Russia across the region.

NATO Countries' Military Bases In The Arctic

Norway has extensive Arctic military infrastructure, but other NATO countries do not have similar capacities.

SELECT MAP TO VIEW

NATO | RUSSIA | BOTH

- Airfield
- Military base
- Coastguard and military base
- Northern Fleet headquarters
- Coastguard base
- Airfield and military base
- Airfield and coastguard base

NATO Countries' Military Bases In The Arctic

Norway has extensive Arctic military infrastructure, but other NATO countries do not have similar capacities.

SELECT MAP TO VIEW

NATO | RUSSIA | BOTH

- Airfield
- Coastguard base
- Military base
- Airfield and military base
- Coastguard and military base
- Airfield and coastguard base
- Northern Fleet headquarters

Europe's reliance on Russian energy limits sanctions' effectiveness

As Russia amassed some 200,000 troops along the Ukrainian border, European countries have faced record-high increases in natural gas prices and a regional energy crisis exacerbated by Europe's longstanding reliance on Russian energy supplies. Despite its efforts to diversify its energy mix, Russia remains the EU's single largest energy source, supplying roughly a third of Europe's natural gas and a quarter of its crude oil. The Arctic is estimated to contain roughly 13 percent of the world's oil reserves, and nearly 30 percent of its natural gas reserves, much of which resides in Russian territory. Russia is already the world's third-largest producer of oil and second-largest producer of natural gas, and Russian energy exports play a critical role in supporting Europe's power supply. This relationship between Europe and Russia has made enforcing effective sanctions on Russia more difficult, as many European states have been opposed to placing sanctions on Russia's energy sector—the most important part of its economy. However, the crisis in Ukraine is rapidly changing this assessment, potentially altering Europe and Russia's future economic relationship.

The Nordstream 2 pipeline has played a central role in the debate over Russian sanctions. In September 2021, the Russian company Gazprom completed the pipeline, which would enable Russia to funnel natural gas directly from Russia to Germany, effectively doubling its capacity to export natural gas to Europe. The pipeline would also allow Russia to circumvent Ukraine and export natural gas directly to EU states, severely limiting Ukraine's leverage, as numerous existing natural gas pipelines that Russia uses run through Ukrainian territory. However, the pipeline has never been operational, due to pushback from the U.S. and other European countries. Germany has now halted its certification after Russia recognized the independence of two separatist regions in eastern Ukraine (the Donetsk People's Republic and the Lohansk People's Republic) on February 22nd and began mobilizing troops into Ukraine's Donbas region, where they are located. With further sanctions coming after Russian airstrikes in Ukraine, Russia's energy sector could be targeted with additional restrictions.

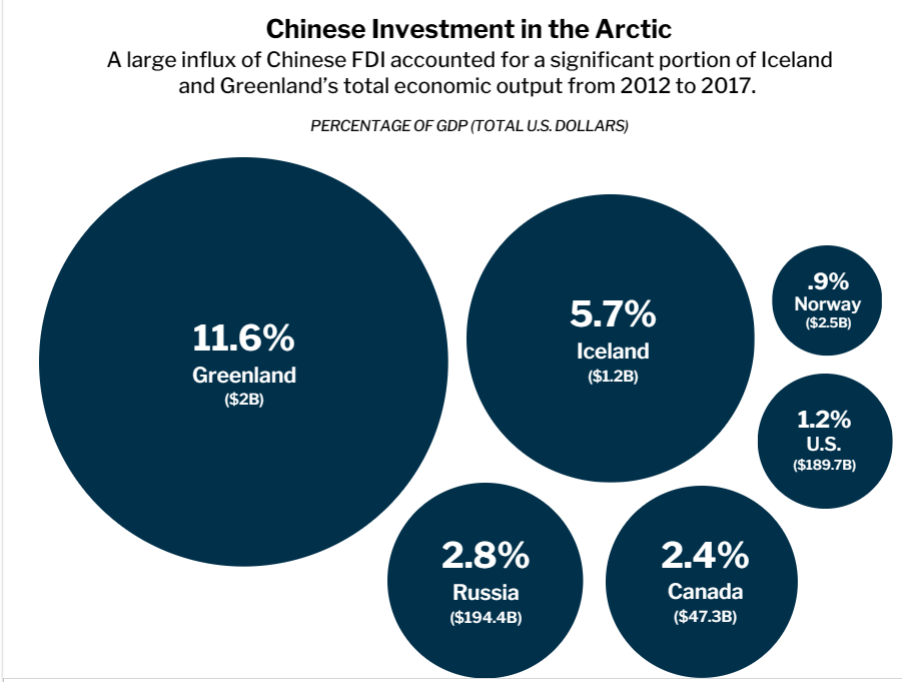
This development signals a significant shift in the EU's approach, but also leaves it vulnerable to Russian retaliation. Russia could further limit its energy exports to Europe, forcing countries in the region to seek alternative suppliers from the U.S. and Middle East and elevating already near-record-high energy prices. While the loss of sales to the EU market would hurt Russian export revenue in the short term, Russia has been securing new energy export customers in Asia. China has been particularly eager to purchase Russian energy supplies, which could help sustain Russia's energy sector in the face of additional EU and U.S. sanctions.

Deepening ties with Russia could expand China's Arctic influence

Closer cooperation with Russia grants China the chance to expand its role in the Arctic, where it has been steadily ramping up its activity over the past decade, further transforming the region into a future arena of great power competition. In

2013, China became an Arctic Observer state on the Arctic Council, and from 2012 to 2017 it invested over $435 billion across Arctic states in a range of sectors, including research, infrastructure, and resource extraction. In 2018, China published its Arctic Strategy and outlined its plan for a “Polar Silk Road” as part of its Belt and Road Initiative. China’s interest in the Arctic to date has centered on ensuring access to the rapidly opening Northern Sea Route—an Arctic shipping lane connecting Europe and Asia along Russia’s Northern ocean—and securing a share of the region’s energy and critical mineral reserves. Pursuing these interests has led to major economic agreements with Russia, including a $400 billion natural gas deal signed in 2014 and, most recently, a 30-year natural gas deal finalized this month.

China and Russia’s cooperation in the Arctic is sparking further security concerns from the U.S. and EU and is generating speculation that China is using the Arctic as an arena to expand its global ambitions. While Russia can supply China with energy resources, China provides a lucrative market for energy exports, access to capital, and financial services to counteract NATO sanctions on Russia. Additionally, China’s participation in Russian military drills, conducted in the Arctic in 2018 and 2019, raises concerns that future agreements between the two nations in the region could include military cooperation. As the ongoing crisis in Ukraine leads to new sanctions on Russia from both the U.S. and EU, it is likely that Russia will increasingly turn to China for economic support. While that bilateral relationship is nuanced, this dynamic could create an opening for China to further pursue and cement its long-term presence in the Arctic region. An expansion of China’s role in the Arctic would increase tensions with the U.S. and other Arctic nations already wary of China’s intentions, and potentially catalyze a transformation of the Arctic’s future role in geopolitics.



Looking Ahead

As Russia continues its invasion of Ukraine and challenges NATO, the Arctic is positioned to play a crucial and growing role in future geopolitical, economic, and military affairs. The abundant resources contained in the Arctic, combined with Russia's strong military position in the region, are rapidly becoming critical factors in determining the U.S. and EU's strategic engagement with Russia. For a deeper dive, FP Analytics' Arctic Competition Power Map breaks down the varying dimensions of Arctic resource and military competition, and comprehensively lays out the interests and strengths of each Arctic nation.

"Myth 8: 'Russia's military build-up in the Arctic is defensive'," Katarzyna Zysk, Chatham House, 23 August 2022 [53]
https://www.chathamhouse.org/2022/07/myths-and-misconceptions-around-russian-military-intent/myth-8-russias-military-build

Overview:

Although Russia claims that its expansion of military assets in the region is both a legitimate response to emerging threats and part of a necessary modernization process, offensive capabilities are also in evidence.

Current & Relevant Information:

What is the myth?

The narrative of a looming conflict over Arctic resources and territories, with Russia as the most likely aggressor, has been largely put to bed. At the same time, the claim that Russia's Arctic military build-up is defensive or mainly defensive in nature continues to be perpetuated. The basic argument is that the development of Russian facilities and assets in the region is merely a necessary modernization after the decay of the 1990s, and that it aims to ensure safety and security for Russia's legitimate Arctic interests. The argument often highlights Moscow's cooperative and constructive policies toward regional relations, especially compared with the country's behavior in other borderlands.

Who advocates or subscribes to it?

This argument has been at the center of the Russian official Arctic narrative since the early stages of the country's military development in the region (set in motion in 2008). Senior figures, including President Vladimir Putin, Foreign Minister Sergei Lavrov and Secretary of the Security Council Nikolai Patrushev, have repeatedly stated that Russia's Arctic military modernization is purely defensive, and that it provides a response to a spectrum of growing threats from both state and non-state actors. For example, Lavrov stated at the International Arctic Forum in St Petersburg in 2019: 'We don't threaten anyone. We ensure sufficient defense capabilities given the political and military situation around our borders.' In a similar vein, Putin said in

2014: ‘We are not going to engage in militarization of the Arctic. Our actions in the Arctic are restrained and reasonable in scope but are absolutely necessary to ensure the defensive capability of Russia.’

Over the years, the Kremlin has been keen to maintain an image of Russia as a reliable and responsible Arctic leader. To this end, it has highlighted Russia’s interest in broad multilateral dialogue and cooperation, and has promoted the image of the Arctic as a ‘zone of peace and cooperation’ and ‘territory of dialogue’, where there are ‘no problems requiring a military solution’.

Similarly, analysis by various Russian and Western experts has held that ‘there is only a rather limited level of modernization and increases or changes in force levels and structures’, and that this constitutes ‘a correction rather than a wholesale militarization’. A recurrent justification for the ‘limited modernization’ program has been the decay in Russian defense infrastructure in the 1990s and early 2000s. Others have claimed that development in the region is no cause for alarm because modernization has also been ongoing in other Russian regions, and the build-up in the Arctic is ‘roughly in line with other strategic directions’. Even if it is slightly larger, it is simply because the region was neglected previously.

Why is it wrong?

This argument is flawed for several reasons. First, it oversimplifies the military dynamics in the Arctic. The distinction between offence and defense is not clear cut in Russian strategic thinking. One example is the prominent role of pre-emption in Russian military theory, notably in the concept of ‘active defense’. This problem is also highly relevant when considering some of the Russian military capabilities, including a broad spectrum of nuclear weapons and long-range high-precision weapons; the Russian Aerospace Forces, which integrate offensive and defensive capabilities; and the offensive elements of Russian airpower, not least long-range and tactical-strike capabilities, which are integral to Russia’s air defense posture. Russia has also conducted numerous operations in the Arctic that can qualify as provocative or threatening to other countries, even if the level of such activities has generally been lower than in the Baltic and Black Sea regions. Hence, describing the Russian military posture in the Arctic as defensive does not explain much from the military strategy point of view. Likewise, claiming that Russian Arctic military investments are primarily designed to ‘protect critical economic and security infrastructure from attack by the United States, in a pre-emptive attack’ does not preclude offensive use of these capabilities.

Second, the geography is misunderstood. The Russian Arctic is often incorrectly treated as a monolithic space. Confusion about the character of Russian military modernization and activity derives partly from a lack of, or insufficient, differentiation between the various Russian Arctic subregions that play different roles in Russian

strategic thinking and defense policy. Russia expects different threats, often on different timelines, that call for different sets of missions and capabilities.

For instance, although Russia has increased its focus on the central and eastern parts of the Arctic, especially since 2010, the main center of gravity for military investments and activities has remained the High North, i.e. the European (or western) Arctic. In this part of the region, the Russian military presence is centered around the Northern Fleet deployed on the Kola Peninsula, just across the border from NATO member Norway. This remains the strongest part of the Russian Navy, which also constitutes the foundation of the fifth military district. The Northern Fleet hosts the largest share of Russian strategic submarines (SSBNs), in addition to modernized and new nuclear, strategic non-nuclear and other conventional forces that could threaten other states. In addition, Moscow considers security challenges and threats in this part of the Arctic, where Russia shares a border with NATO, an immediate security concern. Hence, this subregion plays a special role in Russia's security and defense thinking, notably in nuclear and naval strategies, with missions extending beyond the Arctic region.

Conversely, key security challenges in the central and eastern parts of the Russian Arctic belong to the further future. They are expected to be generated by growing human activity, largely deriving from economic development, which, to date, has been non-linear and expanded below Russia's expectations. The infrastructure Russia has been developing on the Arctic islands in the central and eastern part of the region has a predominantly defensive character and includes new radar stations, early-warning capabilities, and coastal and air defenses.

Third, the Arctic is strategically intertwined with other security spaces in Russian thinking. The Russian Armed Forces, in particular in the European part of the region, have possible roles assigned in the case of escalation of a major conflict involving another great power elsewhere. Russia sees the various regions along its western perimeter (the High North, the Baltic Sea and the Black Sea regions) as interconnected security spaces. As the 'Zapad' and 'Kavkaz' Russian annual large-scale exercises have demonstrated over the years, if there is a regional-level conflict along Russia's western border, the Northern Fleet may not only deploy its 'bastion defense' concept to protect the bases and operational area for SSBNs, but also engage in horizontal and/or vertical escalation in order to pressure opponents from another strategic direction. In addition, Russian forces in the Arctic can be used in a conflict outside the region for pragmatic reasons. Despite extensive military modernization in all defense branches, Russia's military capability remains limited. Russia has repeatedly drawn on these forces when necessary, as with the deployment of the 200th Motor-Rifle Brigade of the Northern Fleet to Ukraine's Donbas region in 2014 and to northern Ukraine in 2022, or the participation of the Northern Fleet in large-scale military exercises in other regions (e.g. Vostok–2018).

What is its impact on policy?

One of Russia's traditional policy objectives has been to limit any foreign military presence close to its borders. The Arctic myth helps the Russian authorities shift the blame and accuse NATO and the US of being the aggressive parties as the alliance responds to Russia's policies by strengthening its presence. This inaccurate representation of Russia's military development in the Arctic could lead to confusion and disagreements in NATO countries about what an adequate policy response should be. Russia could exploit these potential divisions.

What would good policy look like?

Nuances such as those discussed above matter. Neither exaggerating the extent of the Russian military build-up and overreacting as a result, nor underestimating its importance and responding inadequately, will serve Arctic security and stability. The state and composition of Russian military capabilities, their geographic distribution, the underlying threat perception and patterns of military operations are variables that can, and probably will, change over time.

They will be further influenced by spill-over effects from international security, economic and other global dynamics, including Russia's policies in other regions, not least the direct and indirect consequences of the 2022 full-scale invasion of Ukraine. To avoid succumbing to disinformation and creating artificial debates and disagreements, Western actors must correctly assess the Russian military build-up – its strengths, weaknesses and the intentions behind it – in the Arctic and elsewhere.

"Russia's Arctic Military Posture in the Context of the War against Ukraine," Mathieu Boulègue, The Arctic Institute: Center for Circumpolar Security Studies, 31 October 2024 [54] https://www.thearcticinstitute.org/russias-arctic-military-posture-context-war-against-ukraine/

Overview:

The Arctic Institute NATO Series 2024-2025

- **NATO in the Arctic: The Arctic Institute's NATO Series 2024-2025 (Part I)**
- **Russia's Arctic Military Posture in the Context of the War against Ukraine**
- **An Evolution in Arctic Collective Defense**
- **France's Strategic Role in NATO's Arctic Ambitions: A Non-Arctic Power's Perspective**

The full-scale invasion of Ukraine in February 2022 did not alter Russia's Arctic military posture. If anything, Moscow's obsessive search for complete control over the Arctic Zone of the Russian Federation (AZRF) has been vindicated by wider geopolitical developments. Nevertheless, Finland's and Sweden's accession to NATO is making Russia feel more vulnerable from a military point of view.

This self-perception of vulnerability will inform how Russia projects itself in the region, especially through low intensity warfare operations against NATO and its allies – which in turn raises the risk of miscalculation and escalation in a changing Arctic.

Current & Relevant Information:

Posture change in the context of 'NATO's expansion'

From Moscow's viewpoint, the perceived 'enlargement' of NATO to Finland and Sweden is fueling both a sense of vindication and vulnerability across the AZRF – geographically extending from the North Atlantic and the European High North, to North Pole approaches in the Central Arctic, to the North Pacific and the Bering Strait.

On the one hand, Russia's self-inflicted fear of 'encirclement' by the Atlantic Alliance has been validated by Finland and Sweden joining NATO. The double accession represents a *fait accompli* for the Kremlin, honed by a self-reinforcing propagandistic narrative that the Alliance is turning the Arctic into a 'conflict zone' or that there is a 'new Cold War' in the region because of Western policy.

This narrative is compounded by the recent release of the US National Strategy for the Arctic Region (NSAR) in 2022 and the US Department of Defense Arctic Strategy in 2024, which are also denounced as 'deciding the region's future by force' or 'inviting confrontation' in the Arctic.

Finland and Sweden joining the Alliance further fuels the Russian logic that the non-Russian Arctic has become 'NATO territory'. This ends up creating a 'NATO 7 vs. Russia' approach, which tends to securitize Arctic affairs and shape discussions increasingly in military terms. The policy consequences are that Moscow is planning more than ever for all contingencies, including open military confrontation in the Arctic.

On the other hand, from a previous perception of relative regional strength and assertive force posture, the impact of the war has led Moscow to feel vulnerable in the Arctic. This vulnerability is strategic (with the perceived 'expansion' of NATO) and military, especially with regards to the impact of climate change and receding sea ice across the AZRF.

The Russian leadership fears that a more accessible Arctic will bring along more military activity from NATO and its allies in the European Arctic and above North Pole approaches. It also fears there will be more military presence from the US and Canada in the Pacific Arctic – alongside Chinese inroads in circumpolar governance and presence.

The July 2024 Ukrainian drone strike on the Olenya air base in the northwestern Russian Arctic, where strategic bombers are stationed, also reinforces their sense of

vulnerability – not least by defying the genuine effectiveness of Russian regional air defense capabilities.

Ultimately, Moscow does not want to be dispossessed of its control over the AZRF. The fact that NATO's direct borders with Russia have increased in size in the Arctic and Baltic theaters will undoubtedly push the Kremlin to adapt its force projection.

This situation will also force the Kremling to rethink the deployment of capabilities across the Arctic – not least towards regional chokepoints in the European High North such as the Greenland-Iceland-United Kingdom (GIUK) gap.

However, the consequences of the war against Ukraine have not (yet) led to a complete strategic reassessment regarding Russia's Arctic military posture. Existing strategic priorities are linked to:

- Imposing cost on foreign military access to the region (ambitions of control),
- Extending interdiction capabilities beyond the AZRF and removing tension away from the Russian Arctic (ambitions of denial) and
- Protecting the Northern Sea Route (NSR) and contested 'internal waters.'

Wartime adaptations

If strategic priorities remain unchanged, Russian force projection in the Arctic will continue to adapt to the impact of the full-scale invasion of Ukraine. The main adaptation is the reshuffle of the command-and-control (C2) structure in High North.

In early 2024, the Russian armed forces reverted to the Soviet-era Moscow and Leningrad Military Districts, thus officially putting an end to *OSK Sever* and the Northern Fleet's status as a formal Military District. This change is less about the Arctic as it took place in the context of the full-scale invasion of Ukraine to deal with the demands of the war.

The Leningrad MD will oversee Arctic-related operations in the western and central Arctic and connect with the Eastern MD and the Pacific Fleet. This new situation will inevitably create integration and coherence issues within the wider C2 structure.

Although air, naval, and nuclear capabilities have been left largely untouched by the war against Ukraine, Russia has lost a large amount of its spearhead, Arctic-capable conventional ground forces located at the borders with Finland and Norway. It will take some time before Russia can recapitalize its conventional troops in the High North.

Finally, the lofty and ambitious plans to completely (re)build dual-use infrastructure across the AZRF have been paused. Although it is often argued that 'Russia has more Arctic military bases than NATO' the actual operational picture is that of a disparate, uneven, and disheveled network of forward bases and outposts in the Russian Arctic.

The Kremlin is now prioritizing the completion and maintenance of existing infrastructure rather than seeking to expand the network. Moscow must also consider climate change impact and budget constraints.

Russia's low intensity warfare operations in the Arctic

As a response to the sense of vulnerability in the AZRF, Russia is becoming more confrontational in its approach towards regional security and finding excuses to 'defend' itself against perceived external threats. While the Kremlin is taking stock of the consequences of Finland and Sweden joining NATO, Russia will likely conduct more conventional power demonstrations, sub-threshold activities, and grey zone operations in the Arctic.

While there is little incentive for the Kremlin leadership to escalate in the region *per se*, there is also a strong willingness to continue probing and testing the resolve of the Arctic 7 through a well-established toolkit of low intensity warfare operations. These sub-threshold operations and grey zone activities mostly take the form of:

- Brinkmanship-prone activities through offensive peacetime maneuvers at sea and in the air, especially close to the air defense identification zones (ADIZ) of NATO countries and NORAD,
- Regular snap military exercises, strategic bomber overflights and patrol activities, and the weaponization of notices to air missions (NOTAM) in the Barents Sea, across North Pole approaches, and close to the Bering Strait and Alaska – including with China,
- Seabed warfare activities, and notably the disruption of critical undersea infrastructure (CUI) such as energy pipelines and fiber optic data cables across Arctic chokepoints,
- GNSS/GPS jamming and recurrent electronic warfare operations in Lapland and Finnmark in the European High North – with severe risks for civilian and commercial assets.

Risks of miscalculation

A more vulnerable yet assertive Russia in the Arctic, coupled with more NATO attention towards the region, can only mean that the risk of miscalculation provoked by civilian and military accidents, incidents, and tactical errors will increase. Because of the absence of clear lines of communication and deconfliction between Russia and the Arctic 7 countries, it could lead to unintended escalation and further down the road, to military tension if not conflict.

This situation is worsened by the fact that Moscow's restraint over such events cannot be taken for granted anymore – as exemplified by Russia's continued low intensity warfare operations in peacetime against Arctic nations and NATO allies.

Finally, the absence of Russian transparency regarding recent environmental disasters in the region adds more complexity to peacefully solving potential crises.

Another form of risk relates to horizontal escalation – i.e. military tension from other theaters such as the North Atlantic or the North Pacific spilling over *into* the Arctic. In the context of the Finnish and Swedish adhesion to NATO, the Baltic Sea represents a key area for horizontal escalation towards the Arctic.

Finally, miscalculations could happen in the context of Russian sharp power activities in circumpolar governance – for instance, the contestation of the Svalbard Treaty with Norway or exploiting recent decisions by the UN Commission on the Limits of the Continental Shelf (CLCS) regarding Russia and the United States. As a knee-jerk reaction, Moscow also recently threatened to withdraw from the UN Convention on the Law of the Sea (UNCLOS).

Freedom of navigation?

The main risk of miscalculation with Russia, however, pertains to Moscow's contestable interpretation of the legal status of the Northern Sea Route (NSR). For years, the Kremlin has been projecting the NSR as a body of internal waters covered by Article 234 of the Law of the Sea (also known as the 'Ice Clause'), therefore offering Russian authorities the possibility to enforce 'non-discriminatory laws and regulations' over ice-covered areas.

The issue is twofold. On the one hand, the impact of climate change is completely reshuffling access to the AZRF, in turn preventing Russia from invoking the clause to increase control over the NSR because of seasonal sea-ice reduction. On the other hand, Moscow's application of 'non-discriminatory' rules is, in fact, highly discriminatory. Indeed, for the past few years, Russia has been introducing stringent national regulations clearly violating UNCLOS – for instance by strengthening navigation rules and transit rights or interdicting passage to foreign military assets through the NSR.

Moscow seeks to appropriate the NSR as a body of internal waters regulated by Russian law, and no longer linked to UNCLOS under the principles of freedom of navigation and innocent passage. This obsession for control responds to the fear of 'encirclement' in the Arctic and the unwarranted belief that NATO will soon contest the self-appropriation of the NSR.

Russian fears have crystallized in the belief that NATO or the United States are willing to conduct a freedom of navigation operation (FONOP) through the NSR to 'test' innocent passage in contested waters. Most of these fears remain unfounded, especially since there is little value in arranging such an operation as well as high operational risk.

The fact remains that the Kremlin's rhetoric around a potential Western-led FONOP has grown aggressive in recent months, with NATO arguably seeking to 'snatch' the

NSR from under Russia's control. Furthermore, the Russian armed forces and the FSB (in charge of the Coast Guard and Border Guard) have reportedly been making plans to 'counter' a potential foreign FONOP.

Policy consequences

Under the impact of climate change and the subsequent increase in human presence across the Arctic, Russia will find it harder to secure its 'new' Northern border in the AZRF. So far, Moscow's response has been to approach the region through a military lens, leading to perimeter control and sovereignty enforcement as well as the deployment of Arctic-specific capabilities and the revamp of dual use infrastructure.

The Arctic remains key to national interests, and especially the survivability of the sea-based nuclear deterrent on both sides of the AZRF as well as the security of North Pole approaches in the central Arctic.

Russia's imperative to remove tension from the Arctic is consequently adding pressure on critical regional chokepoints – notably in the European High North with the Greenland-Iceland-United Kingdom (GIUK) gap, the Greenland-Iceland-Norway (GIN) gap, and the 'Bear gap' (between the Svalbard archipelago, Bear Island, and mainland Norway) as well as in the Pacific Arctic across the Bering Strait.

In the High North, Russian actions are heightening tension across the North Atlantic sea lines of communication and on the Nordic-Baltic continuum regarding NATO reinforcements. As the Atlantic Alliance is taking stock of the Finnish and Sweden accession, more policy attention will be required to determine the exact role and place of NATO in a circumpolar environment.

Meanwhile, the Kremlin is currently taking stock of how Finland and Sweden will approach their NATO membership, notably the deployment of troops and military capabilities. The Alliance recently agreed to the creation of a Multi Corps Land Component Command (MCLCC) as well as Forward Land Forces (FLF) in Finland, a multinational battle group initially composed of Norwegian, Swedish, and Finnish troops.

These initiatives will undeniably strengthen the land component of High North defense. Yet it is something Moscow will follow closely and ultimately feel forced to respond to, with the risk of miscalculation and military escalation looming.

"Arctic Strategy: Deterrence and Détente," Rolf Folland, Journal of Indo-Pacific Affairs, 3 October 2022 [55]
https://www.airuniversity.af.edu/JIPA/Display/Article/3173373/arctic-strategy-deterrence-and-dtente/

Abstract:

The guiding principle for NATO's political strategy toward Russia for the past 50 years was defined in the 1967 Harmel Report—a dualistic approach based on deterrence and détente.1 This double-track approach came as a response to intense Cold War relations in the mid-1960s that required a revision of the Alliance's policy. The Harmel Report is still relevant, but the dynamics on the northern flank have changed. This article offers valuable insight into how Norway must rebalance its Arctic policy against the strategic backdrop of increased global rivalry, Arctic volatility, and the war in Ukraine. It argues that Norway should lean its Arctic strategy more toward deterrence to avoid exploitation by a revisionist and aggressive Russia while continuing to mitigate a potential security dilemma through active dialogue and cooperation on regional matters.

Current & Relevant Information:

The Arctic is resuming an important geopolitical role. The primary driver for revitalized interest is the effect of global warming. Declination of the Arctic ice cap is creating economic opportunities as untapped resources become available and new waters become navigable. The resource-rich region is estimated to hold large amounts of undiscovered oil, natural gas, and minerals and shorter shipping routes between Europe and Asia are becoming accessible. Growing signs of a great-power "scramble" for the Arctic are emerging, and Russia has claimed expanded jurisdiction and bolstered its military presence in the region. As the Russian invasion of Ukraine has proven to the world, President Vladimir Putin is no stranger to illegal aggression and violation of international law. Russia clearly has the military superiority in the Arctic region, and Putin has already shown the willingness to grab territory in Europe. This raises questions of whether Russian revisionist ambitions along its southern and western European border will metastasize to the Arctic and threaten the cooperative climate that has characterized the region in the post–Cold War era.

Norway has had "1000 years of peace" with Russia, and the two Arctic neighbors' relationship has been characterized by dialogue, predictability, and cooperation. But the relationship is asymmetrical, and Norway has based its security policy on a balance between deterrence through NATO membership and reassurance through dialogue in combination with self-imposed restrictions on allied presence and activity. The Norwegian policy in the Arctic will remain a combination of deterrence and détente, but Russia's growing military capability, assertiveness, and explicit use of force is calling for a renewed balance.

Russian Intentions in the Arctic

To comprehend fully the new challenges in the Arctic, it is vital to analyze Russia's intentions in the region. Understanding Moscow's aims in the Arctic through analyzing Russia's policy documents is a challenging enterprise that includes a substantial element of assumptions. Public documents from Moscow offer basic

principles and trends but may also deliberately convey misleading signals to influence political dynamics. However, this article highlights three main observations driven by the changing physical nature of the Arctic and more demanding security dynamics between key actors in the region. First, the region has emerged as an important resource base vital for bolstering the Russian economy. A weak economy has long been Russia's Achilles' heel; the economic situation has deteriorated even further as a result of sanctions imposed after Russia's 2014 invasion of Ukraine and annexation of Crimea—sanctions that were substantially tightened after the 2022 invasion of Ukraine. This has made the region crucial for Russia's economic future. Second, Moscow will strengthen its control over vast Arctic resources by dealing with the expanded continental shelf and the Northern Sea Route (NSR) as within Russia's jurisdiction. The latter is disputed by other Arctic actors, especially the United States, because it challenges freedom of navigation. Third, Russia's regional focus seems to be gradually shifting from cooperation to deterrence. New indications of strengthened Arctic security measures and regional militarization are particularly intensified in policy documents published after 2014. With Russia becoming somewhat of a pariah state in Western international relations by 2022, the climate for cooperation appears rapidly dwindling, and increased reliance on deterrence seems to be becoming the new normal.

The Foreign Policy Concept of the Russian Federation from 2016 states Russia's ambition of being a great power in a multipolar world where national sovereignty and force are essential. The concept reveals a realist view on international relations, where sovereign states are the main actors competing in a zero-sum game of power and security. Reflecting this, force—and especially military force—is important. A key element in Russian strategic culture is the propensity to use force to achieve strategic objectives, demonstrated lately in the Ukraine. On the one hand, the policy documents clearly indicate Moscow wants to pursue Arctic policies that "preserve peace, stability and constructive international cooperation." On the other hand, it signals that "Russia will be firm in countering any attempts to introduce elements of political or military confrontation in the Arctic." Herein lies the greatest uncertainty with Russian intentions for the Arctic: Moscow's dual-track communication and inclination to use military force to reach political objectives. The 2014 Russian invasion of Ukraine revealed Russia's ability to engage in hybrid modus operandi and Moscow's ability to test the Western security framework's limits. The 2022 Russian invasion of Ukraine was yet another and more explicit and overt testing of the Western security framework, albeit this time ending up with conventional military operations resembling tactics and strategy dating back to the Second World War. One should be careful not to have a short-sighted view of the 2022 invasion of Ukraine, as it needs further research and thorough analysis, but it shows the Moscow's willingness to use force to achieve Russia's objectives, and the wide spectrum of military, political, and diplomatic tools Moscow is willing to employ to achieve its national interests. The reassuring argument is that Russia is dependent on international collaboration in the Arctic to realize its economic potential due to

lack of investment resources, offshore technology, and human knowledge9 and, therefore, likely will continue to solve questions of Arctic sovereignty through international law and multilateral institutions like the Arctic Council. However, Moscow's Arctic policy is also characterized by fear of Western expansion and a struggle for strategic depth, a deep-rooted fear that has likely deepened after its 2022 exploits.

Prior to 2022, Gleb Yarovoy, in his chapter "Basics of the State Policy of the Russian Federation in the Arctic for the Period Until 2020 and Beyond," revealed this fear and signaled that Russia will build-up and modernize its military capabilities to ensure national security and protect its northern border. Russia's National Security Strategy highlighted that NATO's encirclement through regional build-up, expansion, and posture closer to Russian borders is a threat to Russian national security in the Arctic. Russian military doctrine makes the same point of holding NATO as the nation's main external military threat and points to the necessity of increasing Russian military capabilities in the High North. The inclusion of Sweden and Finland into NATO is likely to fit this Russian narrative. So, although the Russian policy documents emphasize stability and multilateral cooperation in the Arctic, military build-up and offensive behavior reveals Moscow's fear and militarized threat assessment.

Russia's Military Build-up in the Arctic

Russia has strengthened and modernized its nuclear and conventional capabilities across the board. Since 2008 it has enhanced its military capability in all areas in the Arctic by investing in mobile systems, special forces, new military bases, infrastructure, and long-range precision weapons. In 2019, the Chief of Defence Valery Gerasimov launched the new defense concept "active defence." This concept emphasizes high readiness, mobility, strong coordination, and massive firepower. As a result, the Northern Fleet Command has been modernized, transformed into Joint Strategic Command North, and further developed to be one of five Russian military districts. Moscow has centralized command authority of all the Russian military units in the Arctic, including the Russian Navy's nuclear-strike capabilities. The reinforcement concept has been modernized, and together with improved force readiness, this ensures that the northern command relatively quickly can achieve short-term local superiority by reinforcing Kola with troops and equipment by rail and air. Several new long-range precision-guided strike weapons, particularly sea- and air-launched systems, have entered into service. Common for most of them is that they can deliver both nuclear and conventional warheads. Different variants of the land- and sea-launched Kalibr cruise missile, the air-launched hypersonic intermediate-range missile Khinzal, together with the land-based mobile SSC-8 Screwdriver pose significant threats to NATO due to their duality, long-range, short warning time, and high precision. The deployment of new multilayered air and coastal defense systems improves protection of the Kola Peninsula, as well as

offering the ability to assert sovereignty in the Arctic region. In sum, this interconnected system of long-range precision-guided strike and multilayered air and coastal defense orchestrated with cyber and electronic tools forms a robust Russian antiaccess/area-denial (A2/AD) capability from the Arctic to the Baltics and the Greenland–Iceland–United Kingdom (GIUK) gap that calls for reinvigorated NATO conventional deterrence and collective defense. However, in addition to nuclear and conventional military power, President Putin has a third ace up his sleeve: hybrid tools that create ambiguity and doubt. Since 2014, Western security analysts have given hybrid warfare much attention, often viewing it as a new Russian tool. It is essential to understand that for Russian decision makers the hybrid tools are integrated with all the other available instruments of national power that can be utilized from peacetime to wartime. In fact, there is a strong interdependence, as Russian hard power supports the elements of hybrid warfare and adds a looming threat to the equation that weakens the adversary's decision making.

On the other hand, military history has provided numerous hard lessons that modern equipment and new concepts are just part of the equation for success. Although I am careful not to draw conclusions prematurely, the Russian political and military performance leading up to and during its invasion of Ukraine leaves much to be desired. Its underachievement will impact its deterrent effect, not least the basic need to replace its military inventory and personnel, which will likely take years. Conversely, the same dynamics of the 2022 war in Ukraine have expanded and galvanized NATO; invigorated European economic, energy, and security cooperation; and strengthened transatlantic security bonds. How this will influence Moscow's Arctic strategy is too soon to assess, but Russia's long-term military build-up and posture in the Arctic creates uncertainty about Russian intentions. Former US Secretary of Defense James Mattis has claimed that Russia is taking "aggressive steps" to increase its military posture in the region. Such a shift in Russian behavior on the northern flank has been significant since 2017.

Aggressive Russian Military Behavior

The Russian military is operating in a more offensive manner against Norwegian and allied activity in the region. According to the Norwegian Intelligence Service (NIS), there have been several examples of Russian assets targeting Norway and NATO with simulated weapon usage. In 2018, during the NATO exercise Trident Juncture in Norway, Russia demonstrated its assertiveness by deploying surface vessels and patrol aircraft to the exercise area, flying strategic sorties over the Norwegian Sea, and performing live firing off the coast of Norway. In addition, there have been several incidents of Russian jamming, resulting in lost GPS signals for civilian and allied air traffic in the northern part of Norway. Russian policy, military build-up, and belligerent behavior in the Arctic—combined with its invasion of Ukraine—signal Moscow's will and capability to reassert its great-power status through military

strength and Arctic energy. Norway must adapt to this new reality in the High North to ensure regional stability and national security and sustain its prosperity.

Norway and the Arctic

The Arctic is Norway's most important foreign policy priority. The region has strategic importance for Norway based on two main factors: economic potential and geopolitical location next to Russia. Norway is a global leader in Arctic petroleum production, a large exporter of oil and natural gas, and half its undiscovered hydrocarbons are estimated to be found in the Barents Sea. This becomes ever more valuable as Europe tries to free itself from Russian energy dependence. Norway is the second-largest fish exporter in the world, and this sector is the second-largest industry in the country after oil and natural gas.

There is a remarkable military asymmetry between Norway and Russia, and defense against neighboring Russia is driving Norwegian security. Norway's militarily inferiority to Russia represents a vulnerability that Russia might exploit. This is the main reason Norway has been a strong advocate for revitalizing NATO's focus on collective defense and increased vigilance on the Alliance's northern flank. According to the former Norwegian Minister of Foreign Affairs, Ine Eriksen Søreide, "Norway constitutes NATO's northern flank, and our military presence in the north is therefore a significant contribution to the security of the Alliance." Thus, Norway has emphasized military presence in the High North. The number of Norwegian high-end capabilities available for credible deterrence is limited compared to Russia's military capabilities, and the political authorities have lately allowed greater influx of allied activities on Norwegian territory. US and UK forces train and exercise more in Norway than they did just a few years ago. This has led to strong reactions from Russia, warning Norway that such actions will have negative consequences, and it has also sparked debate over Norwegian strategic approach among scholars and professionals in Norway.

Adding to this debate, the NATO Summit in Madrid in late June 2022 was a big leap forward for Sweden and Finland in their aspirations for joining NATO. Should Sweden and Finland join NATO (which I hope and believe they will), they too will be part of NATO's northern flank. How Nordic cooperation within the framework of NATO will influence Norwegian security and its relation to Russia and Arctic cooperation is difficult to assess. Still, despite disagreements on strategic approach in the Arctic, the legal principle that law is the basis of governance is the bedrock of Norwegian policy. As a small state neighboring a mighty military power, Norway is strongly committed to the international rule of law. This is also the case in the Arctic. Norway's vision for the High North is "a peaceful, prosperous, and environmentally sound Arctic where international cooperation and respect for the principles of international law are the norm." Russia has so far supported Arctic governance based on international law, and Norway's strategic goal for the Arctic is to make sure this continues in the future.

Russian and Norwegian Cooperation in the Arctic

Norwegian and Russian overlapping interests in the Arctic are based on a shared view that the region should be governed by international law in questions of sovereign rights. Both countries seek stability to pursue their economic interests. The Ilulissat Declaration, signed in 2008 by the Arctic Five, including Russia, demonstrated this and signaled that the Arctic is “governed according to the principles that operate anywhere in the world.” In line with this declaration, after nearly four decades of negotiations, Norway and Russia bilaterally agreed on their maritime delimitation line in the Barents Sea in 2010.

The rule of law is paramount for a small state, and like other Allies, Norway has suspended bilateral military cooperation with Russia since Putin’s 2014 illegal annexation of Crimea. Norway is currently an integral part of Western sanctions on Russia, following the invasion of Ukraine. However, Norway continues to search for areas to cooperate with Russia that are important for safety and predictability in the region, such as search and rescue, coast and border guard, the Incidents at Sea Agreement, and environmental protection in the north. The two neighboring Arctic nations also have a hotline between the Norwegian Joint Operational Headquarters and the Northern Fleet to avoid unnecessary escalation and misunderstandings. And, despite differences, there is enough “common interest to provide a favorable climate for extended future cooperation.” Nonetheless, the 2014 crises and 2022 invasion of Ukraine, plus the sanctions against Russian Arctic energy interests have complicated cooperation and increased regional tension.

Potential for Conflict in the Arctic

This article analyses two factors that can lead to an Arctic spillover: increased domestic unrest in Russia and an intensified great power rivalry in the region. Economic set back from sanctions, military setbacks, and the sense of becoming an international pariah state leading to increased isolation in the wake of a large-scale pandemic can result in domestic unrest that may drive Russia toward a more confrontational track in the Arctic. Domestic and foreign policy are intertwined in Russia, and they are centered around Putin: “Putin believes that only a Russia that is strong at home can be strong abroad, and vice versa, and that the strength of the state derives in part from its stability and unity of purpose.”

Russia’s economic growth has internally been explained as a result of Putin’s great leadership, while periods of recession have been blamed on Western malign forces. Criticizing the West, and especially the United States, has become a tool for stabilizing domestic politics in difficult times. As a result of sanctions, the public dissatisfaction over economic stagnation has grown in Russia. In line with Putin’s political philosophy, this can cause an assertive Russia to take more confrontational steps in the Arctic to secure its energy interests and indicate strength to internal

audiences. In addition, Russia's economic fragility and dependency on European markets have given substance to a growing Sino-Russian cooperation in the Arctic.

Globally, there is an escalating great-power rivalry between the United States and China that seems to have hardened the Arctic strategies and increased the risk for Arctic spillover. Russia is traditionally reluctant to any non-Arctic nation's involvement in the region, but sanctions have made Moscow look to the East for Arctic investments, technology, and cooperation. As a self-proclaimed "near Arctic state," China has a growing interest in the region based on science, energy, and Arctic sea routes as part of its Belt and Road Initiative. This cooperation seems to have strengthened after Russia's 2022 invasion of Ukraine. The rising presence of China and the strengthened Sino-Russian cooperation in the Arctic have sparked serious concerns in Washington, and the United States has criticized both Russian and Chinese Arctic motives. Washington has disputed Moscow's claims to sovereignty over the NSR because it endangers US and Allied military maneuverability, and the growing great-power rivalry seems to have revitalized American political interest in the region. In a speech given before the Arctic Council's 2019 ministerial meeting in Finland, then-US Secretary of State Mike Pompeo revealed an American militarized threat assessment of the region and pointed at Russian and Chinese behaviors as illegitimate, aggressive, and destabilizing. The United States, Russia, and China seem to be hardening their Arctic strategies, and spillover from great-power rivalry is an emerging risk for the region. This creates dilemmas for European NATO-members as they find themselves in a balancing act between security and prosperity. European security is still dependent on US military protection, either bilaterally or through NATO, but most European nations also want to trade as much as possible with China. A strengthening Sino-Russian alliance, together with fear of former President Donald Trump's and the US Republican Party's unilateralism, protectionism, and focus on China represents a long-term danger for Europe and the liberal order since it will create opportunities for an assertive Russia that has shown its willingness to take more aggressive steps.

Against this strategic reality Oslo must balance Norway's security policy against Russia. On one hand, Norway has a unique position for mitigating unintended escalation through established bilateral dialogue on Arctic matters with Russia. On the other hand, Norway is dependent on Allied support for credible and capable deterrence against Russian aggressive behavior. The key question is how Oslo should tailor Norway's Arctic policy to the current security situation.

Recommendations

This article recommends that Oslo lean Norway's Arctic strategy more toward deterrence to avoid exploitation by a revisionist Russia, while continuing to mitigate any potential security dilemma through active dialogue and cooperation on regional matters. These recommendations are derived from three main arguments.

First, the Arctic is existential for Russia's great-power ambitions. Moscow's intentions in the melting Arctic indicate Russia pursues economic development and military build-up to restore its great-power position. There is a growing instability in the international system with great-power rivalry and less confidence in the international rules-based order. Big shifts in the balance of power create opportunities for an assertive Russia that Moscow will exploit. Thus, a Russian behavioral mix of belligerence and cooperation will most likely continue in the Arctic. Therefore, Norway's choice of strategy boils down to risk management and a flexible balance between deterrence and reassurance measures in the face of Russia's behavior.

Second, Norwegian policy on the Arctic must be realistic, pragmatic, and aimed at ensuring hard security before softer issues to protect against Russian exploitation. The language that best restrains an assertive and revisionist Russia from coercive strategies is the language of power, and Norwegian posture and capability in the Arctic must therefore signal strength. Hence, Oslo must pursue continuous territorial presence with high-end capabilities in the High North to ensure Norway's sovereignty and freedom to pursue national interests and enhance deterrence on the Alliance's northern flank. NATO is the cornerstone of Norwegian deterrence, and Norway has been the most eager member in NATO for proactive Arctic defense. This strategic approach should be strengthened despite Russian complaints of encirclement. Credible deterrence can only be attained if Moscow believes that the Allies will come to Norway's aid, and Norway must therefore ensure solid NATO coherence and cohesion on Arctic matters. A significant factor in this equation is the future level of cooperation between the Nordic nations should Sweden and Finland join NATO. With their geopolitical similarities, shared values as small liberal democracies, strong institutions, strong economies, and populations inclined to support increased Nordic cooperation, a more collective Nordic defense approach, within the framework of NATO and bilateral partners, should entail a stronger deterrent posture toward a more aggressive Russia. However, a broader and deeper NATO involvement in the region could also contribute to unintended escalation and endanger the stability that currently exists in the region. Moscow tends to respond aggressively to any NATO encirclement, and the strategic importance of the Kola Peninsula calls for caution. Thus, a stronger and enhanced regional engagement will establish a more balanced deterrence that creates space for détente.

Third, being both a NATO member and an Arctic partner with Russia, Norway has a unique position that Oslo must use for establishing tailored reassurance measures to reduce the security dilemma without sacrificing NATO cohesion. As the Alliance increases its Arctic capability and activity, Moscow will likely perceive it as a danger, and Russia will respond by increasing its own military posture. Hence, the potential for a security dilemma between NATO and Russia in the region is present. Thus, Norway's strategic initiative for increased NATO presence in the High North must be balanced with strengthened reassurance measures to avoid escalation. Keywords

for reassurance are transparency, predictability, stability, and accountability, alongside pragmatic cooperation on Arctic governance where common interests already exist. Thus, Norway should combine its military deterrence with strengthened political dialogue and cooperation on military safeguarding the economic opportunities and environmental challenges in the region. The Arctic Council has effectively been bridging Arctic gaps but does not address security matters, and since 2015 Russia has been excluded from the Arctic Security Forces Roundtable. Even with the current international climate toward Russia after its invasion of Ukraine in mind, the long-term absence of an arena to discuss security matters for the Arctic is a vulnerability that over time should be reduced. Because defense against neighboring Russia is driving Norwegian security, it is highly recommended that Norway welcomes an Arctic security dialogue with Russia either through existing formats or new ones.

"NATO Is Unprepared for Russia's Arctic Threats," Liselotte Odgaard, Foreign Policy Magazine, 1 April 2024 [56] https://foreignpolicy.com/2024/04/01/nato-russia-arctic-steadfast-defender-2024/

Overview:

Even with Finland and Sweden, the alliance lacks a capable defense presence in the north.

Even as its members take part in Steadfast Defender 2024, NATO's largest military exercise since the Cold War, it is clear that the alliance remains ill-prepared against Russia's military capabilities in the Arctic. The exercise, which runs between January and May, involves more than 90,000 troops across the Atlantic and up to the Arctic and suggests that NATO has a strong and capable defense presence in the region.

Current & Relevant Information:

However, a closer look at the capabilities of the Arctic states—which are all NATO members except Russia—reveals otherwise. Finland and Sweden's recent membership in NATO has been heralded as a turning point in deterrence against Russia in the north. However, the countries' proximity to northwest Russia means that their strategic focus is primarily targeted at the Baltic Sea region, where Russia has pursued a military buildup directed toward NATO's eastern flank.

No NATO member state has ice-strengthened ships with both anti-aircraft and anti-submarine capabilities. The United States, Canada, Denmark, Finland, and Sweden have prioritized capabilities designed for other theaters, such as the Indo-Pacific and the Baltic Sea regions. Iceland, which has no standing army, only operates coast guard vessels. Norway has ice-strengthened coast guard vessels, but they are not designed for military operations.

Russia's nuclear submarines, which are capable of launching an attack on North America, can travel from the Barents Sea through the Bear Gap between

Scandinavia and Svalbard, Norway, and under the ice along the coast of eastern Greenland without being detected. This leaves big gaps in NATO's defense posture. Russia's war in Ukraine also gives it incentives to work with China in the Arctic, including joint naval exercises and coast guard cooperation.

NATO should not let Arctic deterrence fall by the wayside by concentrating its force posture along its eastern flank. Instead, the trans-Atlantic alliance must act urgently.

Russia's 2022 naval doctrine raised the Arctic region to the highest priority. Between its invasion of Crimea in 2014 and 2019, Russia built more than 475 military facilities in the Arctic. Its Northern Fleet, located in the Barents Sea, accounts for around two-thirds of the Russian Navy's nuclear strike capabilities. A multilayered network of sensors, missile systems, coastal defense systems, and electronic warfare technology protects these capabilities, including the strategic submarines.

Despite NATO Secretary-General Jens Stoltenberg sounding the alarm in 2022, the alliance lacks an Arctic strategy. Its current area of responsibility extends only to the "High North," a less ambitious term that describes the ice-free parts of the Arctic. The term is indicative of disagreement within NATO over whether its remit goes beyond the North Atlantic.

As glaciers melt, more countries from outside the region are engaging in the Arctic, which risks further crowding the Northern Sea Route and incentivizing Russia to protect the entry and exit points to its military bastion.

Russian vulnerabilities in the Arctic have affected its strategic cooperation with China. On the one hand, Russia needs to cooperate more with Beijing—in areas such as digitalization; infrastructure; and intelligence, surveillance, and reconnaissance—to utilize the economic potential of the Northern Sea Route and protect its strategic assets. On the other hand, Russia is concerned with maintaining control of its Arctic coastline.

Moscow will cooperate with Beijing if this red line is respected. Although access to Russian facilities and ports will allow China to use its military capabilities in the Arctic, including icebreakers and semi-submersible vessels, Beijing has little interest in becoming a military power in the region. Decades of strategic coordination in Central Asia and in the Korean Peninsula have proved that China understands the benefits of not undermining Russia, even if Moscow's geopolitical agenda is not always to Beijing's liking.

Despite Chinese concerns over Russia's war of attrition in Ukraine and its military-strategic cooperation with North Korea, Beijing benefits from Moscow maintaining a strong force posture toward NATO. This is especially true in the case of the Arctic, where a permanent Chinese presence would open a new front with U.S. allies at a time when Beijing is already engaged in hot spots in its own backyard.

The supply line that runs through the GIUK gap—the strategically important entrance to the North Atlantic between Greenland, Iceland, and the United Kingdom—is a vital route for U.S. and Canadian forces to deploy and send supplies to northern Europe in the event of military conflict with Russia. Moscow can currently disrupt this supply line without NATO intervention because the Nordic states in the Arctic do not have capabilities to detect Russian forces operating in the Bear Gap and off the coast of eastern Greenland.

This mismatch underscores how countries such as Norway and Denmark have limited defense budgets but major responsibilities—including manning the Arctic and Baltic regions as well as, in the case of Norway, a land border with Russia.

Such budget constraints explain the reluctance to acquire the expensive capabilities to take on responsibilities that should fall to all Arctic NATO member states. But the widespread unwillingness among all members to invest in Arctic capabilities is easily explained: NATO has focused on pushing member states to spend 2 percent of GDP on defense, and investments in capabilities such as ice-strengthened navy vessels do not count as contributions to NATO's minimum force requirements. That comes at the cost of Arctic security, which Russia is willing to exploit.

Amid heightened tensions with Russia, it is important that NATO does not ignore Moscow's threat in the Arctic. This is not to say that trans-Atlantic allies should engage in a massive military buildup that risks provoking a Russian military response. Russia is likely to interpret freedom of navigation operations from states that do not border the Arctic Ocean, such as the United Kingdom, France, and Italy, as an escalatory NATO presence from states that lack legitimate obligations to patrol the Arctic.

A Russia that perceives itself as vulnerable in the Arctic may respond more forcefully than is desirable from NATO's perspective. This points to the need for the United States, Canada, Denmark, and Norway to take on more responsibility for deterrence in the region by focusing on the areas adjacent to their sovereign territories.

As it marks its 75th anniversary, NATO should come to an agreement on an Arctic strategy. For starters, it should revisit and update its minimum force requirements and allow members states to count the development of special capabilities, such as ice-strengthened frigates, as contributions to the NATO spending targets. As U.S. leaders increase pressure on other NATO member states to meet the defense spending target—ultimately requiring those states to cancel other investments in areas such as public welfare—few states can justify taking on defense expenses that do not count as part of the minimum force requirements.

Although Finnish and Swedish membership has seemingly enhanced NATO's Arctic posture, the alliance still has a long way to go in the region. NATO must increase its footprint in the Arctic to credibly deter Russia's military force posture.

“Changes in the Arctic: Background and Issues for Congress,” Congressional Research Service, 1 October 2024 [57] https://sgp.fas.org/crs/misc/R41153.pdf

Summary:

The diminishment of Arctic sea ice has led to increased human activities in the Arctic, and has heightened interest in, and concerns about, the region’s future. The United States, by virtue of Alaska, is an Arctic country and has substantial interests in the region. The seven other Arctic states are Russia, Canada, Iceland, Denmark (by virtue of Greenland), Norway, Sweden, and Finland. The Arctic Research and Policy Act (ARPA) of 1984 (Title I of P.L. 98-373 of July 31, 1984) “provide[s] for a comprehensive national policy dealing with national research needs and objectives in the Arctic.” The National Science Foundation (NSF) is the lead federal agency for implementing Arctic research policy. The Arctic Council, created in 1996, is the leading international forum for addressing issues relating to the Arctic. The United Nations Convention on the Law of the Sea (UNCLOS) sets forth a comprehensive regime of law and order in the world’s oceans, including the Arctic Ocean. The United States is not a party to UNCLOS.

An array of climate changes in the Arctic is now documented by observing systems, with more expected with future greenhouse gas-driven climate change. Observed physical changes in the Arctic include warming ocean, soil, and air temperatures; melting permafrost; shifting vegetation and animal abundances; and altered characteristics of Arctic cyclones. A monitoring report of the Arctic Council concluded in 2019 that “the Arctic biophysical system is now clearly trending away from its previous state [in the 20th century] and into a period of unprecedented change, with implications not only within but also beyond the Arctic.”

Following the end of the Cold War, the Arctic states sought to maintain the Arctic as a region of cooperation, low tension, peaceful resolution of disputes, and respect for international law. Over the past 10 to 15 years, the emergence of great power competition between the United States, Russia, and China has introduced elements of competition and tension into the Arctic’s geopolitical environment. Russia’s war in Ukraine beginning on February 24, 2022, has further affected the region’s geopolitical environment by prompting the seven Arctic states other than Russia to suspend most forms of Arctic cooperation with Russia, by prompting Finland and Sweden to apply for NATO membership (they are now NATO members), and in other ways.

The Department of Defense (DOD) and the Coast Guard are devoting increased attention to the Arctic in their planning, budgeting, and operations. Whether DOD and the Coast Guard are taking sufficient actions for defending U.S. interests in the region is a topic of congressional oversight. The Coast Guard has two operational polar icebreakers and through FY2023 has received funding for procuring the first two of four or five planned new heavy polar icebreakers.

The diminishment of Arctic ice could lead in coming years to increased commercial shipping on two trans-Arctic sea routes—the Northern Sea Route close to Russia, and the Northwest Passage close to Alaska and through the Canadian archipelago—though the rate of increase in the use of these routes might not be as great as sometimes anticipated in press accounts. International guidelines for ships operating in Arctic waters have been updated.

Changes to the Arctic brought about by warming temperatures will likely allow more onshore and offshore exploration for oil, gas, and minerals. Warming that causes permafrost to melt could pose challenges to onshore exploration activities. Increased vessel traffic (e.g., oil and gas exploration, cruise ships, expanded fishing activities) in the Arctic increase the risk of pollution in Arctic waters. Cleaning up oil spills in ice-covered waters will be more difficult than in other areas, primarily because effective strategies for cleaning up oil spills in ice-covered waters have yet to be developed. Changes in the Arctic could result in migration of fish stocks to new waters, and could affect protected species. The United States is working with other countries regarding the management of Arctic fish stocks.

Current & Relevant Information:

Introduction

The diminishment of Arctic sea ice has led to increased human activities in the Arctic, and has heightened interest in, and concerns about, the region's future. Issues such as geopolitical competition in the region between the United States, Russia, and China; increased military operations in the region by Russia and other Arctic countries; growth in commercial shipping through the Arctic; and oil, gas, and mineral exploration in the Arctic could affect the region's future.

The United States, by virtue of Alaska, is an Arctic country and has substantial political, economic, energy, environmental, and other interests in the region. Decisions that Congress makes on Arctic-related issues could significantly affect these interests.

This report provides an overview of Arctic-related issues for Congress, and refers readers to more in-depth CRS reports on specific Arctic-related issues. Congressional readers with questions about an issue discussed in this report should contact the author or authors of the section of the report discussing that issue. The authors are identified by footnote at the start of each section.

This report does not track legislation on specific Arctic-related issues. For tracking of legislative activity, see the CRS reports relating to specific Arctic-related issues that are listed at the end of this report.

Russia's Arctic Military Modernization

Russia since 2008 has adopted a series of strategy documents outlining plans that call for, among other things, bolstering the country's Arctic military capabilities. Among other actions, Russia established a new Arctic Joint Strategic Command at Severomorsk (the home of the Russian navy's Northern Fleet), reactivated and modernized Arctic military bases that fell into disuse with the end of the Cold War, assigned upgraded forces to those bases, and increased military exercises and training operations in the Arctic.

Prior to Russia's war in Ukraine, some observers expressed growing concern at these developments. Other observers noted the cooperative aspects of relations among the Arctic states, including Russia, and argued, that the competitive aspects were overstated. Some observers argued that Russia's military investment in the Arctic were sometimes exaggerated, reflected normal modernization of aging capabilities, or was intended partly for domestic Russian consumption. Russia's war in Ukraine has heightened concerns among the A7 states and other observers about the purpose behind Russia's military modernization in the Arctic.

2. Geopolitical Environment:

"Russia's Reimagined Arctic in the Age of Geopolitical Competition," Shaheer Ahmad and Mohammad Ali Zafar, Journal of Indo-Pacific Affairs, 9 March 2022
[58] https://www.airuniversity.af.edu/JIPA/Display/Article/2959221/russias-reimagined-arctic-in-the-age-of-geopolitical-competition/

Abstract:

The melting Arctic serves as a precursor for a renewed geopolitical contest among the great powers. Russian policy posture of developing Yamal LNG and opening of the Northern Sea Route (NSR) as a global shipping artery sets the course for Russia on the Arctic's chessboard. Similarly, the revival of the Northern Fleet shows Moscow's anticipation to counter the maritime threats coming from the United States. Meanwhile, the US approach is likely to challenge the Russian claims on NSR and Arctic militarization in the context of Sino-Russian cooperation. Finally, using the qualitative content analysis, the article argues that the melting Arctic has enabled Russia to increase its geopolitical influence due to its topography and military might, which has intensified geopolitical competition in the region.

Current & Relevant Information:

The Arctic is an ample tale of economics and oil, territories, and politics, particularly the Russian reassertion on the Arctic region. Climate change is a precursor for the new geopolitical contest as the dawn of global warming is changing the peaceful pace of the region. The unprecedented changes in the Arctic are setting the course for a challenging geopolitical situation for Russia vis-à-vis other major competitors, including the United States, collaborating with its allies to counter the Russian territorial claims and maintain a free and open Arctic.

Russian Arctic strategy aims to develop untapped energy reservoirs to elevate its economy. This includes the interrelated projects of Yamal LNG (liquified natural gas) and the Northern Sea Route (NSR), which are strengthening the Russian economy, reducing maritime routes, and assisting Russia to become a dominant power in the region. Besides this, Russian attempts to develop and utilize the NSR as a global shipping artery raise the value of the Arctic in the Kremlin's geopolitical calculus. Moreover, Russia perceives the United States as a geopolitical competitor in the Arctic. Thus, Moscow is undergoing an overhaul of the Soviet-era bases to counter threats to its oil and gas terminals and reinforce its position as a maritime power. Russia's declining energy assets and its status of an energy superpower as its foreign policy tool are the motives to maintain its hold on the untapped energy reservoirs in the region. Therefore, the interplay of economics and geopolitics has transformed the region into a hotspot for a renewed geopolitical competition among the great powers.

The United States has been the least active in the Arctic region after the Cold War. Nevertheless, it holds important strategic interests in the growing Russian and Chinese presence in the region. Washington's approach is likely to discourage the Russian claims on the NSR and militarization of the Arctic. Similarly, the United States is actively building the icebreakers to counter the Russian superiority in the icebreakers fleet. Moreover, the US collaboration with its regional NATO allies aims to establish security equilibrium against the growing Sino-Russian cooperation in the region.

The shift in the geopolitical landscape of the Arctic has posed several challenges to the Russian dominance. These challenges will likely hinder the Russian economic and geopolitical ambitions. Thus, the changing dynamics requires Russia to undertake a comprehensive approach regarding the United States and its allies. Likewise, Russia must utilize Sino-Russian cooperation prudently in its shared animosity with the United States, coupled with balancing Chinese cooperation by solving out the legal discrepancies. Thus, a coherent approach will enable Russia to pursue its broader economic and geopolitical goals.

The growing Russian activities in the region are knotted with its broader geopolitical and economic goals. Therefore, to understand Russia's interplay of politics and economics, this article is divided into four parts. The first part undertakes an in-depth analysis of the changing dynamics in Russia's Arctic policy. It also analyzes the policy actions including Yamal LNG, the opening of the NSR, and the revival of the Northern Fleet. The second part will analyze the role of the United States as a geopolitical competitor as it is concerned with the Russian and Chinese presence in the Arctic. The third part analyzes Sino-Russian cooperation in the Arctic region. The last part concludes the article by discussing challenges and the way forward.

Russian Arctic Policy

The Arctic has gained prominence to the Russian international agenda. The resource competition in the barren region can easily be a source of conflict in the near future. The upsurge in the Russian activities can be seen in the revival of the Northern Fleet, development of new oil and gas terminals including Yamal and Shtokman, and expansions in Russian exclusive economic zones by taking approval from the United Nations Commission on the Limits of the Continental Shelf.

The continuous warming of the Arctic coupled with aspects of national security and Russia's deteriorating relations with the West, especially after the Ukrainian crisis, have forced Russia to look for alternative options. Meanwhile, the increasing significance of the Indo-Pacific is reflected in Russian policy documents that indicate the priority of a "turn East." These drivers of the Russian Arctic strategy determine the main objectives, primary goals, and strategic policies of the Russian Federation. Also, it validates the measures regarding the strategic planning of social and economic development and preserving Russia's national security and territorial integrity. The Arctic zone of the Russian Federation comprises the areas of Sakha Republic, Arkhangelsk, and Murmansk. Additionally, Krasnoyarsk territory, Nenets, Yamal-Nenets, and Chukchi districts are the areas where Russia advocates for autonomous rights and jurisdictions under the perspective of international law.

Russia Arctic Policy 2020–2035

The policy posture adopted by Moscow as its Arctic strategy 2020 includes the utilization of the Arctic as a strategic resource base to fulfill the country's socioeconomic needs. It also centers on using the NSR as a national transport route for Russia in the Arctic. The strategic priorities of the Russian Federation can be seen in the expansion of the resource base region to fulfill its energy needs. It is not surprising that the Arctic accounts for 10 percent of Russia's GDP and 20 percent of its exports. Therefore, the region is crucial in the strategic designs of the Kremlin. While dealing with military and security, the Russian government favors an auspicious operating regime, including the army and other military formations. Therefore, the deployment of the Northern Fleet demonstrates the Russian intent to protect the NSR. Meanwhile, the policy posture of 2035 shows the Kremlin's urge to access the naval chokepoints in Greenland, Iceland, and the UK to demonstrate the significance of Russia's sea power. Hence, the opening of the NSR and the revival of the Northern Fleet is transforming Russia from a continental to maritime power in the region.

The parallels in the policy postures of 2020 and 2035 exist in the Russian national interest in naming the Arctic as a strategic resource base. Moscow is aiming to utilize the opportunity to develop energy reserves, including 85.1 trillion cubic meters of natural gas and 17.3 billion metric tons of crude and condensate oil. Moreover, it is also trying to intensify its LNG production to 91 million tons by 2035. Furthermore, it is planning to increase the role of the Arctic in crude and condensate oil production to 20 percent in 2024, 23 percent in 2030, and eventually 26 percent in 2035.

However, these economic gains are highly dependent on the successful functioning of the NSR.

The strategic plan to develop the NSR as a global shipping route will allow the Kremlin to play a dominant role in Arctic geopolitics. While referring to the security interests linked to the NSR, the role of the Northern Fleet cannot be overlooked to intercept the aggressive actions by NATO countries in Norway. Therefore, the intensified activities of the Northern Fleet to establish an effective monitoring system for surface and underwater activities show how regulation and control of shipping along the NSR is a priority for the military as an effective stakeholder.

Opening of the NSR: A Strategic Enabler for Yamal LNG and the Northern Fleet

The development of the NSR is crucial for the Kremlin's strategic designs and the Arctic's future geopolitical course. The NSR remains closed for eastbound shipping for half of the year due to Arctic ice. The change in the climate patterns unlocked the NSR much earlier during the past year, which significantly reduced the time for Yamal LNG cargoes to reach East Asian markets. The success of Yamal LNG endeavors on developing the Arctic infrastructure depends upon the functioning of the NSR because it can assist the Kremlin in extending its influence to the Asia-Pacific. Yamal LNG will allow the Kremlin to attract potential customers by offering them the Arctic LNG at a low cost. Moreover, Novatek's smooth price enhances the company's portfolio in global market positioning. James Henderson has argued that the NSR not only provides a shortcut from Yamal to Asia, but also provides an alternative to the US-controlled maritime routes. He further asserts that the Russian military modernization along the NSR has made it a “potential leverage point” amid growing geopolitical competition.

The Northern Fleet remains a focal point when it comes to maritime shipping in the NSR. The Kremlin has elevated the significance of the Northern Fleet by upgrading its status to a military district. According to Matthew Melino and Heather A. Conley, Moscow’s ambitions to project Russian power in the Arctic is an “avenue of approaches” for United States. The Murmansk-based fleet is crucial for safeguarding maritime shipping in the NSR. Moreover, the addition of offensive and defensive capabilities to the Northern Fleet includes the equipment of S-400 and hypersonic missiles, which shows the Kremlin’s concern regarding the security of the route. Moreover, the induction of the Knyaz Vladimir, a Borei-A strategic missile submarine armed with Bulava ICBMs and 667BDRM Delfin submarines equipped with Sineva ICBMs, is a powerful signal to other actors regarding the Russian defense planning of the Arctic and the NSR.

The growing Russian military presence along the NSR is due to the evolving security concerns revolving around the defense of Russian national security and the denial of US maneuvers. The Kremlin's Northern Fleet is crucial to deny the US claims of freedom of navigation and maintaining Russian status quo in the region. Although

the NSR is a strategic enabler for the Kremlin, it however requires the Northern Fleet to deter the United States, a geopolitical challenge for Russia. Thus, the success of the Kremlin's policy is dependent upon the successful functioning of the NSR.

Policy Actions

Yamal LNG: Gas has remained a strategic element for the Kremlin's economic and political interplay. Russia has used gas as a geopolitical weapon for many years. The project of Yamal LNG is believed to harness 926 billion cubic meters of natural gas. The construction began in 2012 and will last till 2021, costing 27 billion USD. Perhaps it is the most successful LNG project during the last decade regarding projects and cost management. Moreover, the efficacy of Yamal LNG can be assessed through its efforts to fetch an international consortium. It comprises the French company with LNG expertise (Total), a major consumer of LNG in the form of the China National Petroleum Corporation (CNPC), and a major financing source in the Silk Road Fund. Similarly, Yamal's success in buying sales contracts from customers in the Asia-Pacific, Europe, and South Asia has enhanced the project to take its final investment development in 2013. However, with a high pace in accordance with its schedule, the rapid development of the project had put its international and domestic rivals in disrepute.

Yamal LNG has directly attracted the Kremlin's support, which can be seen in the proposal of the Russian energy minister, Dmitry Medvedev, who ensured the Kremlin's support for the LNG project, which includes a tax exemption for the first 250 billion cubic meters of natural gas, 20 million tons of condensate and exemption of property tax under the Mineral Resource Extraction Tax regime for 12 years. Similarly, the project also reaped $19 billion—the largest ever project financing in Russia. This leap forward has presented Russia and China with limited choices: either to defect or cooperate. Russian dependence on East Asian markets for the sale of LNG products and Beijing's dependence on Russia to take its expeditions in the Arctic makes it evident that both players cannot get an optimal outcome while deviating unilaterally from the game. Meanwhile, the interstate agreement between Russia and China had also assisted in attracting Chinese shareholders and loans from the Chinese Development Bank. Therefore, Yamal LNG's efficacy in developing hydrocarbon reserves makes it a significant part of Russia's geostrategic calculations.

The rationale behind the Kremlin's support of the project lies in the fact that it has been trying to expand the scope of the LNG industry to reduce its reliance on European markets. Additionally, the development of infrastructure, notably the Sabetta port, airfield, and the construction of LNG tankers and icebreaker fleet that will perform 200 voyages per year, requires direct and indirect support from the government. Despite the failures of the Kahrasavey, Baltic LNG, and Shtokman projects, it is necessary for the Kremlin to support Yamal LNG because it enables the Kremlin to achieve its various economic objectives. Nevertheless, Russia knows

that without the intensification of the activities on the Arctic and attracting foreign customers it will be difficult for Russia to utilize the region as a strategic resource base. Hence, the Yamal LNG has secured various deals to sell LNG products to its European and Asian customers on a durable basis. Similarly, the NSR, with its east- and westbound routes, makes the European and Asian markets accessible. Therefore, the LNG exports coupled with Russian influence over the NSR acts as an enabler for the Kremlin to enhance its status as an energy superpower and utilize its geopolitical and economic interplay efficiently.

Opening of the Northern Sea Route: The opening of the NSR is part of the Kremlin's strategic priorities, providing it a shortcut from Europe to Asia. The route significantly reduces the distance from Yamal to Asia as compared to the Suez Canal route. It connects the Atlantic and Pacific oceans and is considered an important trade route for Europe and Asia. The route runs from the Russian coast of Novaya Zemlya in the west to the Bering Strait in the east. However, the route remained neglected after the demise of the Soviet Union, both domestically and internationally. Nonetheless, the commencement of climate change compelled the Putin administration to revive the route, which can be seen in a policy document of 2008 explaining the "exploitation of Northern Sea Route as a national unitary transport communication," which prioritizes the NSR in Kremlin's strategic domain. The functioning of the NSR will reduce the geographical limitations on the Kremlin's sea power while easing its access to the sea. From the Baltic front, Russian ships have to face the sea power of Nordic states in the Gulf of Finland and the Danish straits. Moreover, the Black Sea Fleet had to pass through the Dardanelles strait or Suez Canal route. Hence, the opening of the Northwest Passage and the shipping between the Eurasian land and the Arctic has enabled Russia to become a dominant maritime power. The Kremlin's strategic designs, as aforementioned, are to utilize the NSR as a global shipping artery under its jurisdiction concerning the international treaties of the Russian Federation.

The NSR is a fuel-efficient alternative for shipping between Far East and Europe and decreases the peril of piracy. The Kremlin is setting out its desire to increase the traffic in the NSR to 80 million tons per year by 2024. The timing of the goal may not seem realistic; however, by 2030, the NSR will emerge as a key trade route. The available statistics of 2018 depict a significant increase in the gross revenue of transportation by 84 percent per annum. The turnover via the NSR amounted to 19.7 million tons, among which Novatek's project accounted for 8.4 million tons, crude oil and refined products for 7.8 million tons, and gas condensate for 0.8 million tons. It shows that hydrocarbons comprised 86 percent of total transportation in 2018. Nevertheless, 2019 statistics witnessed a significant surge in the transportation turnover to 31.5 million tons that marked an increase in maritime cargo traffic. Therefore, the NSR is among the crucial strategic calculations of the Kremlin's policy postures.

The interrelated projects of Yamal LNG and the opening of the NSR are crucial for the commercial and geopolitical future of the country. The opening of the NSR will strengthen the Russian influence in the Arctic and provide short access to Asia-Pacific and European markets. Moreover, the strengthening of Russian presence in the Arctic and supplementing the socioeconomic conditions of the region depend upon the Kremlin's strong influence on the NSR.

Revival of the Northern Fleet: Since the Cold War, the Arctic has held a geopolitical significance in the systemic competition between the Soviet Union and the United States. However, it lost its geopolitical relevance in the 1990s after the demise of Soviet Union, but again reemerged due to Russia's determination to reinstate its military prowess soon after the North Pole expedition in 2007. The Russian Arctic strategy aims to sustain Russia's status as an energy superpower by developing its oil and gas terminals. Similarly, the refurbishment of the NSR is linked with the Russian objective to preserve its "territorial integrity." The yoke between these policy postures resonated in Putin's statement during his election campaign of 2011 that "We will also beef up our military bases there, and we will certainly increase national security in the north." However, the economic concerns of Russian Arctic policy are knotted with the matter of prestige that ultimately relies on military might. The Northern Fleet and its nuclear-powered submarines equipped with ballistic missiles consolidate the Kremlin's beliefs on the primacy of "hard power."

The privilege of the Northern Fleet not only enhances the Kremlin's geographical position but also grants it a "strategic advantage" to conduct hostile operations against its adversaries. Geostrategists acknowledge the significance of the Northern Fleet by addressing Russia's lack of access to the sea. This is evident from H. P. Smolka's analysis of the Russian fleet stationed at Murmansk, which has access to the high seas thus transforming Russia from land to naval power.

The Kremlin has recently upgraded the status of the Northern Fleet amid the growing significance of the Arctic in its policy circles. The presidential decree signed by Putin granted the Northern Fleet the status equivalent to the existing four military districts of East, West, and South. Rob Huebert analyzed this move as "…a recognition that offensive and defensive capabilities of the Northern Fleet represent one of the most important elements of the Russian military." The Kremlin's modernization of the Northern Fleet aims to protect its oil and gas terminals, which are strategic assets for the Kremlin. This development includes the stationing of the S-400, which strengthens the Russian air defense capabilities. Moreover, the Kremlin has increased its offensive capabilities by equipping the MIG-31 of the Northern Fleet with Kh-47M2 Kinzhal missile, which will project the military prowess of the Kremlin in the Arctic.

The security concerns linked with the NSR revolve around preserving Russian territorial integrity and denying foreign incursions. The Northern Fleet remains at the center when it comes to the regulation of shipping in the NSR. Moreover, the

Kremlin is also intensifying its presence to intercept the actions of the foreign military forces in the region, which includes the joint exercises of the United States, Norway, and NATO above the Arctic Circle in 2018. The access of the Northern Fleet to the High Seas will provide it an offensive capability, while the functioning of the NSR will put Russia in a position to control the traffic in the region. Hence, the Kremlin's aggressive military buildup in the Arctic is to contain NATO and respond to the US maneuvers.

The United States as the Primary Geopolitical Competitor

The emergence of Russia as a militarily and strategically dominant power has conflicted with the US interests in the region as Washington views the growing Russian influence as a threat to its national security. The changing dynamics are the prelude for the United States to counter Russian military presence in the region. Russian flexing of military muscle has raised worries among the Arctic states, including US allies. Biden's administration therefore is concerned by enhanced Russian military capabilities. Similarly, increased Sino-Russian cooperation has raised alarms in Washington, evident in the newly published US Arctic Strategies—notably the US Navy's A Blue Arctic Blueprint and the US Army's Regaining Arctic Dominance.

The US Department of Defense's Arctic Strategy 2019 identified three threats to the US national security interests in the region. The first threat is the possibility of an attack on the US homeland, made more likely by increasing cooperation between Russia and China. The second threat is the challenge to the rules-based order from Russia and China by using the NSR and possible use of force against foreign vessels operating against Russian regulations. That is why American officials have regarded the region as "nobody's lake." Finally, the third threat is the possibility of "strategic spillover" from rising tensions in the Arctic. To counter these threats, a response is expected from US military presence in the region, specifically by the US Coast Guard. However, as per the hearing on maritime security, the US Coast Guard is regarded as weak compared to the Russian Navy. This position has concerned the United States over aggressive actions of Russia and China. However, it also shows the gaps in the US ability to maintain its rules-based order in the Arctic.

Russia's large icebreaker fleet, increasing investment of China in Greenland, and the declaration of the NSR as a "polar silk road" has alarmed the policy circles in Washington. Washington is eager to build icebreakers, evident as the United States lacks the "hard power" in the region as compared to the Russian icebreaker fleet. However, this will remain the case because the United States will not be able to create its "largest icebreaker" until 2024.

The US strategy in the Arctic will be moving on the three lines of action. First, it will aim to enhance the capabilities of the US Coast Guard in the Arctic. Therefore, the United States will be using the International Maritime Organization to adopt

international code for ships operating in polar water and to question Russian maneuvers in the region. Second, to strengthen the rules-based order, the United States will be eager to cooperate with NATO allies in the region. It is evident from Biden's faith in the alliance and the most recent discussion over US-Canadian defense cooperation. Yet, it will be based on adding strategic and operational depth to the regional position of Arctic allies. The Trump administration debated Greenland's sovereignty, Denmark's role as a strategic enabler for US interests in the region, and surveillance of Russian actions. Third, the United States will aim to promote resilience and prosperity in the region. Hence, US promotion of Arctic values is evident from Trump's approach toward the Arctic Council. Despite the reluctance of Trump's government toward multilateralism, he was vocal about promoting cooperation among Arctic states through the Arctic Council. However, while conceptualizing Biden's climate policy and his approach toward multilateralism, his actions will be aiming to use the "Arctic Council to strengthen US relations with allies."

Historically, US ties with regional allies go back to 1867, when the United States acquired Alaska and fostered economic, diplomatic, and strategic ties with the Arctic states that are the part of NATO. These allies have been supportive of US military presence since WWII, especially Denmark and Canada. The United States was able to establish bases that were critical to the war effort in the High North and the Arctic, hence adding to the strategic depth of the United States in case of any escalation. These strategic points are marked as critical ventures to the US strategic calculations that will create a geopolitical challenge for Russia and China.

The United States has been skeptical toward China's Belt and Road Initiative (BRI), which has gained a new dimension due to the melting Arctic. The Chinese investments in technological and environmental domain have posed a challenge for the United States in the region. Moreover, China's plan to gain a military base in Greenland in 2016 has signaled to the United States that China is using the cover of its investments to plant a military toehold in the region. Therefore, the United States is incentivizing the region by building three Greenland airports to pressure the government against the Chinese deal. Moreover, the strengthening of diplomatic and commercial relations with Greenland is to diversify the economic prospects beyond fishing, strengthening ties, and to counter expanding Chinese influence in the region. Similarly, Pompeo's bid for European and North American states to form a coalition against Russian and Chinese interests in the region increases the geopolitical competition between the regional players.

In an interview, Carla Sands, US ambassador to Denmark, stated that Denmark is "willing to fight with Americans shoulder-to-shoulder and do things that many of our allies won't." Thus, Washington's decades-long disinterest in the Arctic is reversing and leading toward strong US-Danish cooperation against Russia. At the same time the Pentagon can be seen rallying its allies, indicated by Pompeo's statement that ".

. .we are counting on our partners in Greenland and Denmark to lead with us." On the other hand, Norway's government requested the United States to increase the number of marines from 330 to 700, which has matched Washington's desire to intensify military presence in the region. Hence, geopolitical proximity of these actions will increase hostility between Norway and Russia, as Russia has warned Norway that such actions would have "consequences." Therefore, it is evident that the stage is heating up for competition in the region.

Despite the military superiority that Russia enjoys in terms of icebreakers, US military actions cannot be sidelined. In October 2018, the USS Harry S. Truman and its associated escort sailed above the Arctic Circle, the first such strike group to do so since the Cold War. This operation in the Norwegian Sea means that Washington is raising its game in the Arctic. Moreover, VADM Linda L. Fagan, who oversees Coast Guard operations in the Arctic and Pacific, states that "we're obviously watching both the Russians and the Chinese quite closely." Despite the vitality of the geopolitical competition, the difference in military power might hurt the United States.

The weak US naval presence can be observed from statement offered by Coast Guard Capt. Gregory Tlapa, who commands the lone USS military icebreaker traveling to the Arctic each year. He stated that, "The nation doesn't have deep-bench strength in terms of capabilities to operate up here and project power and protect our national interests." This is why the US Navy, like the other branches of the US armed forces, has introduced a new Arctic strategy. The United States has maintained its military presence in the northern base of Thule, Greenland, which is 750 miles north of the Arctic, hosting radar systems that will scan for any nuclear missiles launched against the United States. Although the United States lacks the deep-bench strength in the Arctic, recent steps are raising its influence in the region.

The US contestation for military dominance in the region will be facing hindrance from the ground and sea routes, due to unavailability of icebreakers and the increasing necessity of strategic cooperation with regional actors. Therefore, the United States is planning to introduce air combat planning in which the United States will have two squadrons of F-35-A in Alaska by 2022, joining the two squadrons of F-22 Raptors already there.

Strategically, the United States might deploy a nuclear submarine fleet due to the rising tensions and disparity in the military capability. The deployment of the large surface warships and sea-based ballistic missile defense systems in the Arctic is due to the periodic visits of US submarines. Furthermore, the United States will enhance its capabilities to intercept Russian intercontinental ballistic missile (ICBM) launches at the initial phase and making a preventive strike by ICBMs, submarine-launched ballistic missiles, and cruise missiles, irrespective of their nuclear or nonnuclear nature. However, the execution of these plans will create a hard security threat in the region, which can be observed from the negative response of Russia over joint UK-US naval exercises in the Norwegian and Barents seas in May 2020.

Furthermore, in October 2019, the largest Russian military exercise in the Arctic since the end of the Cold War was held, which further exacerbated the growing complexities of the region's militarization regardless of global warming. These strategic actions, along with the weakening position of the United States and intensified Sino-Russian economic cooperation will compel the United States to maintain a military toehold in the region.

According to Ambassador David Baltonn, from “America First” to a policy orientation focused on “becoming less isolationist,” Washington is keen to cooperate with more than just NATO members in the Arctic. In comparison to Biden, Trump was more vocal toward strategic engagement in the region while Biden tends to be less aggressive. Ulf Sverdrup, director of the Norwegian Institute of International Affairs, is of the view that despite the change in administration, Washington’s policies will reflect a “continuity to US foreign policy rather than a change to it.”

The United States shares considerable territory with the Arctic, and the region’s security environment is tied with the matter of homeland security and national interests. Russia’s attempt to utilize the region as a strategic resource base is dragging the region toward geopolitical and resource competition. US rivals Russia and China are utilizing their economic and military power to maintain and enhance their influence at the expense of US national interests. The significance of the region for the Russian military power and development of the oil and gas reserves compels Russia to pursue goals contrary to those of the United States. Similarly, Chinese ambitions to gain access to the Arctic’s resources and sea routes to enhance its rise is concerning for the United States. Therefore, Russian interrelated economic and political interests coupled with the extended strategic and geopolitical competition are an irritant to the US interests in the region.

Sino-Russian Cooperation and the United States

The United States as a geopolitical competitor provides a pretext for Sino-Russian cooperation in the region. Russia’s domestic challenges catalyzed by its international image due to the Ukrainian crisis ask for greater economic cooperation with the world. Therefore, the Kremlin requires military superiority as well as economic well-being of state activities in the region. Thus, political incentives are only achievable if Moscow can create opportunities for the world to accept the rules-based order Russia has envisioned to support its regional goals.

Sino-Russian cooperation has entered from two fronts—economic and diplomatic—which is observed in the collaboration over Yamal LNG and the acceptance of China as a “near-Arctic state.” The acceptance of China as a near-Arctic state shows Moscow’s determination to strengthen their already 110-billion-dollar trade relationship by adding the Arctic as another area in which to cooperate. Moreover, economic investments such as the Belkomur railway, the harbor in Arkhangelsk, and the 1161km-long railroad construction from the western Siberian town of Solikamsk

through Syktyvkar to Arkhangelsk, are some of the most important infrastructural development to strengthen bilateral ties in the region. This enthusiasm of the Russian officials shows the prospects for the cooperation, but the ball still remains in Russia's court; the cooperation enables Russia to expand its economic activities and allows strategic engagement with other regional players. Thus, it will enable Russia to encircle the US activities in the region.

Sino-Russian relations are decades long: the first cooperative effort in the Arctic was observed in 2013 when the CNPC contracted with Rosneft to survey three areas of the Arctic in the Pechora and Barents Seas. Russia's oil and gas cooperation with China in the Arctic is comprehensive, which remains to be balanced and pragmatic. Russia is eager for an economic boost, and China wants to expand economic cooperation to avoid the "Strait of Malacca Dilemma," which is mutually inclusive for both. The Russian Far East has provided grounds for increasing the value of cooperation. Furthermore, the expansion of BRI projects in the region will open doors for "China's Arctic Silk Road" while compelling the policy makers to expand partnership beyond the Arctic Circle.

Sino-Russian cooperation is expected to increase regional economic integration. The 2017 development to enhance shipping via the NSR through joint conjunction of the Eurasian Economic Union and BRI provides both sides a chance to align their mutual interests along the NSR. Despite US hostility toward Sino-Russian cooperation, both sides have aimed to cooperate with regional actors. This is evident in 2019's joint statement that cooperation will be "based on the rights and taking into account the interests of the coastal state." These efforts lift the scope of the mutually recognized principle of cooperation; along with this, it improves the chances for Russia to mitigate legal discrepancies that, if supported by the regional actors, will ardently create a Russian-based order.

The shared interest in the technological development of the Arctic Ocean has forced both states to join the international trans-Arctic cabling scheme. Furthermore, both are interested in remote sensing between GLONASS—a space-based satellite navigation system—and the Chinese satellite navigation system BeiDou. This joint endeavor will improve the navigation situation in the Arctic.

Russia remains the anchor of China's engagement in the Arctic. Certainly, the nature of cooperation will have implications for the region, more specifically the United States. However, there exist reasons for such a bond between Putin and Xi Jinping. First, the Chinese desire for "near-Arctic state" status requires Russia's partnership. Russia's status as an Arctic superpower and its ability to influence regional affairs will intensify the nature of Sino-Russian cooperation. Second, Russia is eyeing Chinese financing to commercialize its underdeveloped Far North, especially along the NSR. Hence, these activities will certainly intensify the Sino-Russian cooperation in the region.

Both states cooperate on joint gas projects, including the Sila Sibiri (Power of Siberia) pipeline, which will link the Chinese Irkutsk region with the Siberian gas field in the Yakutia Republic. The agreement was signed between Putin and Chinese Vice Premier Zhang Gaoli, which includes other possible explorations, notably Vankor field, which will be linked by an agreement with CNPC. Furthermore, the joint effort to transfer 3 million tons of liquefied natural gas from their collaborative Yamal LNG project for the next 20 years shows the bolstering economic cooperation.102 These efforts are viewed as the Kremlin's urge to find complaisant partners to lift its economy while improving Russia's position in the region.

Moreover, strategic cooperation between Russia and China aims to increase counter actions against the US Navy along the NSR. Hence, the increasing Sino-Russian cooperation raise the concerns for the United States as Beijing's cooperation with Kremlin will not be stopping anytime as no official agreement exists between Russia and China over the limits of Chinese presence in the region. Thus, Washington is pressured to expand its role in the region.

However, there exist several divergences in Sino-Russian cooperation. Despite the strategic reproachment, China neither shares Russian ambitions to confront the United States directly, nor is it willing to harm its relationship with the United States for the sake of the Russian Arctic agenda. Aglaya Snetkov has termed Russia as a "loud dissenter" and China as a "cautious partner." It is evident in the statement of Chinese diplomat Fu Ying who stressed that "China has no interest in a formal alliance with Russia, nor in forming anti-US or anti-Western bloc of any kind." Similarly, despite China's growing bilateral engagement with Russia, it is still cautious and has sought ways to steer itself out from the international security crisis with Russian involvement, notably in Ukraine and Syria.

Despite the optimism regarding Sino-Russian cooperation, there exist various limitations to Sino-Russian cooperation. The grievances and mistrust rooted in the history and differences in the strategic culture, particularly on the Russian side regarding the shift in relative power. Similarly, China's priority regarding its economic growth compels her to align with the United States, which is Beijing's trading partner. Bobo Lo has argued that China and Russia "share neither a long-term vision of the world nor a common understanding of their respective places in it." Hence it can be argued that Sino-Russian cooperation is more like a flexible strategic partnership in which both states are pursuing a pragmatic approach of cooperation on mutual strategic interests. Nevertheless, there exists no long-term strategy to assist or defend each other.

Challenges

The engagement of Russia in traditional political cooperation can be a prelude to the prudent deployment of NATO forces in Iceland, which can create a security situation in the region while hindering the economic incentives that remain to be the Kremlin's

major interest. Similarly, the United States will be eager to create a regional rift in the Arctic through its NATO allies and its Coast Guard activities in the Bering Sea, which is threatening to the Kremlin's socioeconomic and geostrategic interests.

Similarly, China's eagerness to access Arctic resources at the expense of Russia will allow it to hold an upper hand in a relationship between the two. China's short-term goals have clearly been supported by the Kremlin. However, there is no mutual agreement over long-term strategy, which can temper the Sino-Russian partnership as a result of unfulfilled expectations.

Moreover, Beijing's influx in the region by the stratagem of investment, trap, and rule can threaten the Kremlin's orientation in the region. Despite Sino-Russian cooperation, the Chinese role remains skeptical as it desires to maintain a military foothold in the region, which is evident in the Chinese urge to buy a military base in Greenland.

A possible sanction over Russia is expected as discussed in the Report of the Congressional Research Services, which can trigger the prospects for Russian economic gains. Paradoxically, the relation could deteriorate if Russia is unable to balance out its economic cooperation between China and other actors. China's rise and Russia's need of capital for its Arctic project could pose another obstacle for the Kremlin in Sino-Russian cooperation. This orientation is not only expanding the right of the non-Arctic states but threatening the Kremlin to create a Russian-centric regional order. Russia's sovereign claim over the NSR is not legally acceptable as per the United Nations Convention on the Law of the Sea (UNCLOS), hence viewing the NSR as part of its territorial waters unravels the legal discrepancies.

Way Forward

The increasing geopolitical competition in the Arctic has posed several challenges to Russian interests in the region. Therefore, the changing dynamics require Russia to undertake a comprehensive approach to overcome the challenges posed to its dominance in the region.

Sino-Russian cooperation is based on shared animosity toward the United States, which is a prelude for the Kremlin to cooperate with Beijing by transforming short-term strategy into a long-term strategy to hold the regional stage. If both states can introduce a joint statement over regional cooperation for a longer run, then it will allow Russia to understand the long-term ambitions of China.

To keep the pawns under the Kremlin's control, Russia must balance its cooperative efforts with China against the possibility of falling into a debt-trap. Therefore, Russia must add other players such as India, South Korea, Japan, and Saudi Arabia to diversify its capital pool. For this the ministry of the Russian Far East and Arctic development must be utilized to untangle the potential of the High North and its combination with the Asian states. This is where China must be involved to utilize

transport corridors Primorye 1 and 2 (Ministry of Commerce of the PRC 2018) to increase trade, hence opening the European and Central Asian markets for Russia. However, this long-term strategic goal is plausible only if Russia is able to prevent any escalation of conflict with the United States, which will be eager to create a regional rift either through regional platforms, the NATO alliance, or Coast Guard activities in the Bering Sea.

Despite of the growing ante over military competition and the unprecedented naval prowess of Russia in the region, the Kremlin must have an offensive-defensive policy action in the region. Maximization of power is important, yet it is also important to maintain Russia's leading status quo in the Arctic. Hence, it is important to keep the area free of conflict to reap the benefits from the NSR and allow maximum cooperation in the region.

The NSR provides the Kremlin with an opportunity for economic gains and indicates the Kremlin's commitment to the multipolar world. The crisis in Ukraine hurt Russia's global reputation. Therefore, the opening of the NSR, its commitment to build projects in the High North, and the creation of opportunities for international businesses must be utilized to improve its global standing. To achieve these interests Russia must avoid military confrontation of any length with regional players, specifically the United States, which will increase the trust deficit that exists between the Kremlin and the world. Russia plays a vital role in the Arctic by providing icebreaker and navigation support as well as energy production. This will allow regional actors to increase their trust in the Kremlin's position which is plausible only through trade, in the region.

Similarly, while joint military exercises can act as a counterweight to US pressure, the Kremlin must keep Chinese military presence out of the region. This doesn't mean that China's desire to hold a military base in the region must meet a green signal from the Kremlin. The maintenance of security in case of confrontation with the United States depends on Russia; China has no interest in being drawn into military conflict with the United States in the region. The Kremlin must assure China that any cooperation in the sphere of maritime security will be to protect mutual economic activities.

Moreover, Russia must solve the legal discrepancies in the region because China, in the interim, is not questioning Russia's position in the Arctic. The right to passage along with Russian definition of the NSR is viewed as a violation of UNCLOS by Chinese experts. Despite the increasing cooperation, Russia must ask China to support its position as the dominant regional power by accepting the jurisdiction of the NSR as Russia's territorial waters. It is possible because China's claim of the nine-dash line in the South China Sea (SCS) is somewhat similar to Russian claims over the NSR; so, a possible trade-off between the two is possible regarding the acceptance of jurisdictions over the NSR and SCS, respectively. Hence, Russia

must increase its acceptability even if it requires supporting the Chinese claim over the SCS.

Conclusion

The melting Arctic and resource competition have allowed Russia to gain grounds in the region. The Kremlin's dominance due to its unique topography and overwhelming military presence has made it impregnable in the Arctic. Moreover, the interrelated projects of Yamal LNG and opening of the NSR to enhance Asia-Europe maritime shipping and cooperation with Beijing on the "Polar Silk Road" is a part of the Putin's "Russia's Grand Arctic planning." Meanwhile, the multibillion-dollar investment from Beijing in Yamal is healing the Kremlin's wounds sustained from Western sanctions following its annexation of Crimea. Great-power competition in the Arctic sphere demands that the United States counter growing Sino-Russian cooperation in the region. Putin's hawkish attitude in the Arctic has upped the ante for a stronger policy response from Biden.

Nevertheless, Russia is confronted with the geopolitical challenge of US and NATO allies that are concerned regarding the Arctic militarization and Russian claims over the NSR. Even though the US military position in the Arctic is comparatively weak, US plans to station F-35s in Alaska to augment already-stationed F-22s and the installment of radar systems in Greenland shows the dissatisfaction of the West toward "dissenter Russia." On the other hand, balancing Sino-Russian cooperation and solving the legal discrepancies is necessary for Russia to keep the situation under control. Thus, the changing dynamics of the region require Russia to carefully tackle the challenges and exploit the opportunities to utilize the region as its strategic resource base.

"Russian Geopolitical Strategies in the Arctic Are Complicated by Rapid Glacier Retreat on Remote Islands," Lily Roberts, Columbia Climate School, 16 September 2021 [59] https://news.climate.columbia.edu/2021/09/16/russian-geopolitical-strategies-in-the-arctic-are-complicated-by-rapid-glacier-retreat-on-remote-islands/

Overview:

Alexandra Land, an island in the Franz Josef Land archipelago that lies at 80°N in the Arctic Ocean, is home to Russia's northernmost military facility. The Nagurskoye air base is of great importance to Russia because of its location in the High Arctic, a region which has received increased attention in recent years as international tensions and military activity in the area have heightened. This shift is in large part due to the extensive melting of sea ice, which has opened up the Arctic Ocean to shipping as well as to oil and gas exploration. The melting of the glaciers which surround Nagurskoye uncovers land space for human infrastructure whilst simultaneously increasing the runoff in nearby streams and accelerating permafrost

thaw, which could destabilize the foundations of infrastructure and profoundly disrupt landscapes.

Current & Relevant Information:

Military activity on Alexandra Land was first established by the former Soviet Union during the Cold War, when a dirt runway served as a small airbase, adjacent to a meteorological station. Its usage substantially dwindled following the collapse of the Soviet Union in late 1980s and early 1990s but was restored in 2008 following Russian interest to protect its long northern coastline and vast energy and mineral resources, as well as to better monitor passage in the Northern Sea Route (NSR), which links Europe and East Asia. In 2013, the Russian Defense Ministry announced plans to form more permanent military facilities on Alexandra Land, including a new and larger air base as well as support installations. The base was designed to support a greater range of military aircraft, including bombers.

The island lies at 85° 45' N, close to the North Pole. It is largely covered by ice, and the few ice-free areas consist of permafrost. It lies within the NSR passage, with Norwegian archipelago Svalbard 260 kilometers to its west, and the Russian coastline 360 kilometers to its south. It houses two sizable ice caps, the larger Lunar Ice Cap and the smaller Kropotkin Ice Cap, which during the 1990s covered 74 percent of land area. There are many lakes across Alexandra Land which are fed by glacial meltwater or seasonal permafrost thaw.

Warming air temperatures have accelerated melting of the glaciers in recent decades. Warming is especially striking in the Arctic because of polar amplification; the region has warmed at twice the global average rate over the last 30 years. A study found that mass loss from glaciers across Franz Josef Land doubled between 2011 and 2015 compared to the 1953 to 2011 average. Increasing meltwater feeds the lakes that lie within a few kilometers of Nagurskoye base, increasing their volume and potentially altering their configuration, which could spill over to the air strip, causing problems for military operations there. On the other hand, receding glaciers will open up ice-free space on the island that could be utilized for Russian military infrastructure.

Permafrost underlies much of the ice-free land that the air base is situated upon. Stephen Gruber, a geoscientist at Carleton University who has conducted research in a number of high latitude permafrost sites (although not in Russia) mentioned that no matter where you go in the Arctic, big changes will come in the next decades due to warming. Gruber noted that many engineered structures in the Arctic, such as the air base on Alexandra Land, will undergo changes, some of them unexpected, because the current practice was based on past experience, which was not challenged by long-term warming and ice melt.

In an interview with GlacierHub, Alexander Sergunin, a Russian national, professor at Saint Petersburg State University and author of Russia in the Arctic, stated that "I

don’t see any specific implications of climate change, such as bringing Arctic states into war or military tension, but I think that climate change necessitates cooperation rather than confrontation.” Now that the Biden administration has returned to the Paris Agreement, Sergunin believes key players in the Arctic can cooperate on the issue of climate change. When Biden and Putin met in June for historically significant talks, Arctic matters were discussed, and although resolutions were likely not found, both leaders expressed their interest to cooperate.

Russia’s interest in Franz Josef Land stems from its desire to enhance territorial defense in the Arctic, across its exclusive economic zone, and improve control over activity in the NSR. The archipelago’s location makes it a useful location to retain power in the Arctic and increase surveillance of international activity, especially that of NATO forces. A recent article by the Centre for Strategic and International Studies speculates that the recent growth of the Nagurskoye air base suggests that Russia is seeking to expand their future military and offensive capabilities, to expand the geographical range that could be reached by aircrafts from Alexandra Land to US and other NATO bases in the Arctic. However, in his interview, Sergunin stated “the mission in the Arctic has changed compared to the Cold War period. Now the main mission is protection of the exclusive economic zone, Russian sovereignty, and coping with non-traditional threats such as illegal migration, pollution and smuggling.”

Offering a different perspective, Rasmus Bertelsen, a political scientist at The Arctic University of Norway and of Nordic nationality, explained “looking at this air base it is very important that we in the West don’t only think about the offensive potential, but from a Russian perspective, how useful it is to defend the Russian Arctic.” Because of Alexandra Land’s central location he added “they [Russia] can really defend a large part of the Arctic Ocean from Nagurskoye.”

In addition, Bertelsen believes that questions surrounding geopolitics in the Arctic very much center on nuclear weapons. “The Russian nuclear weapons are based in the Arctic, so conventional forces are largely to protect the nuclear forces,” he explained. This concern explains why Russia is keen to build a bastion from Alexandra Land, as declining sea ice opens up the Arctic Ocean to NATO forces, Russia must protect its nuclear armed submarines. “The Nagurskoye base is incredibly useful for defending these waters where the Russian missile submarines are hiding,” Bertelsen told GlacierHub.

The modernization program of Russia’s military, which included the expansion to Nagurskoye station, is in line with the efforts of other Arctic nations. “Russia had a special military modernization program, in general, but also in the Arctic specifically, it started in 2007 and is almost complete,” Sergunin told GlacierHub. From Sergunin’s perspective, “Russia is trying to restore its armed forces which we [Russia] had before, make them more capable of coping with new threats and the

Arctic cold weather conditions, but that's it, Russia doesn't plan to use military force, they don't plan to conduct any operations in the Arctic itself".

The rapid loss of sea-ice that has long acted as a physical barrier to the northern Russian coastline is now opening up the High Arctic to increasing maritime activity. Loss of sea ice is the most prominent and concerning change to the Arctic cryosphere under climate change. "The Northern Sea Route is part of the Russian exclusive economic zone; currently many parts of the zone are covered by ice even in the summertime," explained Sergunin. But this is likely to change under global warming, opening up the zone to international vessels, which is a concern to Russia. "Russia is extremely eager to develop international shipping on the NSR, but the double-edged sword is that the less sea ice there is, the more vulnerable Russia becomes," Bertelsen adds.

Melting glaciers on Franz Josef Land will present challenges for human infrastructure and activities on the archipelago, which have proved extremely important to Russian strategy in the High Arctic. Increasing meltwater runoff and permafrost thaw threaten the longevity of the Nagurskoye air base on Alexandra Land. Coupled with the threat of declining sea ice opening up Russian waters to international vessels, this small island deserves attention as climate change complicates the cryosphere within a region of huge geopolitical importance.

"The New Arctic Geopolitics," Wilfrid Greaves, Rusi, 5 May 2022 [60]
https://rusi.org/explore-our-research/publications/commentary/new-arctic-geopolitics

Overview:

Arctic cooperation is on ice following the most recent phase of Russia's invasion of Ukraine.

Current & Relevant Information:

The Russo-Ukrainian War has altered the trajectory of international cooperation in the circumpolar Arctic. Regardless of whether Russia's invasion of Ukraine – which began in 2014 – ultimately ekes out some form of victory for Moscow, or is beaten back by Ukrainian resistance with support from the West, it has redefined Arctic geopolitics, and its outcome will shape its future. In this, the war threatens to undo 30 years of progress on pan-Arctic cooperation and institution-building that have been a central achievement of the post-Cold War international order.

Until recently, circumpolar politics has been guided by the idea of the region as 'One Arctic' characterized by peaceful cooperation based on similar social, economic and ecological foundations. Since the collapse of the Soviet Union, all Arctic states have committed to the maintenance of a rules-based region, founded on multilateral cooperation, consensus decision-making and non-violent dispute resolution. This regional order has been built on three pillars: privileging the role and interests of the eight Arctic states; emphasizing the Arctic Council as the premier forum for regional

cooperation; and limiting the role and activities of NATO – founded, after all, as a defensive alliance against the Soviet Union – in the circumpolar region.

All three pillars have been strained before. Over the past two decades, there has been significant growth in interest in Arctic politics from non-Arctic states. Thirteen non-Arctic states have been granted observer status at the Arctic Council since its establishment in 1996, including seven since 2013. In that year, Asian countries including China, India, Japan, South Korea and Singapore all became observers, significantly globalizing the composition of actors participating in the council's activities. The EU also observes meetings, although a final decision on its contentious application has been deferred. China's interests and ambitions in the Arctic have attracted particular attention and some concern from Arctic states, which have acted to prevent Chinese investment in potentially sensitive or strategic infrastructure in Canada, Greenland and Finland. China has nonetheless met with some support for its polar activities from Iceland and Norway, while investing considerable resources in its own Arctic icebreaking, scientific and diplomatic capabilities. However, although the door to Arctic cooperation has been opened slightly to the outside world, the Arctic states have remained at the centre of polar politics and firmly in control of its regional institutions.

The Arctic Council has also been challenged as the premier forum for Arctic cooperation. For instance, in 2008 and 2010, the five Arctic coastal states (Canada, Denmark, Norway, Russia and the US) held a pair of high-level meetings without including either the remaining Arctic states (Finland, Iceland and Sweden) or representatives of the Arctic's varied Indigenous peoples. The so-called 'Arctic 5' have not met without all their Arctic neighbors since 2010, when then Secretary of State Hillary Clinton criticized such ad hoc meetings as 'creating new divisions' by excluding legitimate stakeholders in the region. Other forums have been established as alternative sites of regional cooperation, some with looser criteria for inclusion which make them more welcome to non-Arctic and non-governmental actors.

Likewise, debates for and against an expanded Arctic role for NATO have been actively underway since 2007, when relations between the West and Russia began to deteriorate following the planting of a Russian flag on the ocean floor at the geographic North Pole. Some allies, such as Norway, have been supportive while others, such as Canada, have been more skeptical, but increased tensions have fueled more allied training activities in the region. NATO has undertaken regular multinational military exercises in the European Arctic theatre on a scale not seen since the Cold War, but overall its Arctic role has remained limited.

However, in the wake of Russia's war with Ukraine and the ensuing collapse in its diplomatic relations with European and other Western states, all three of these pillars of regional geopolitics are poised for significant revision. Sanctioned and isolated from access to Western investment capital and technological resources, Russia has become even more reliant on its relationship with China. Already, Sino-

Russian cooperation has been a defining feature of the Eurasian Arctic subregion, namely Chinese investment in Russian fossil fuel exports and increased shipping along the Northern Sea Route. The longer Russia is cut off from Western capital, the more reliant upon China it becomes. All this means that as China seeks to grow its polar influence and activities in line with its Arctic strategy, Russia will likely be a compliant partner.

The Arctic Council, meanwhile, has been a casualty of the war. At the start of Russia's expanded invasion on 24 February, the seven other member states issued a rare joint statement pausing their involvement in all council activities. They announced they would not attend any meetings in Russia, which, given that Russia currently holds the council's rotating chair, effectively suspended the political activities of the Arctic Council indefinitely – though some scientific-technical cooperation does continue.

But in the absence of conditions that permit cooperation directly with Russia, the other Arctic countries should reiterate their commitments to peaceful and collaborative regional relations by maintaining a diplomatic infrastructure for regional governance. This bloc – in essence an 'A-7' group of Arctic democracies – should maintain financial and logistical support for as many of the Council's projects as possible. Their officials should also meet regularly to sustain a framework for Arctic cooperation until such time as the Western Arctic states normalize relations with Russia and the full Arctic Council is reactivated. The vision of One Arctic may have guided the region for many years, but the geopolitical reality of Arctic cooperation for now is one in which the members of the A-7 are engaged alongside other Western states in a multilateral effort to isolate, sanction and punish Russia for its violations of Ukrainian sovereignty and alleged commission of war crimes and genocide in that country.

To underscore this new reality, NATO is likely to expand its activities and deepen its strategic posture in the Arctic. Since its founding in 1949, NATO has comprised five Arctic states (Canada, Denmark, Iceland, Norway and the US), balanced against the neutrality of Sweden, Finnish accommodation with the Soviet Union, and the Soviet Union itself, succeeded by Russia. The Arctic was thus divided throughout the Cold War among West, East and officially neutral states. In the 1990s, Finland and Sweden both became NATO partners, but refrained from pursuing membership due in part to opposition from post-Soviet Russia. The deterioration in relations between Russia and the West after 2014 led Finland and Sweden to increase their defense cooperation with NATO and multilaterally among their Nordic and Baltic neighbors.

Now, despite Russian threats of potential nuclear escalation, both Finland and Sweden have rapidly reconsidered their strategic positions and are expected to pursue NATO membership. With the Alliance signaling support, their accession could occur within months, not only expanding the border of NATO eastward and doubling its length with Russia, but also deepening the regional strategic

realignment in the Arctic of the A-7 versus Russia. With seven out of eight Arctic states in NATO, the region will effectively be partitioned into roughly equal halves by area and population: seven allied, democratic and capitalist societies sharing broadly liberal values; and a geopolitically isolated, strategically handicapped and Sino-dependent Russia. Incidentally, more NATO involvement in the Arctic to ensure the defense of the A-7 will also increase the participation of non-Arctic states in the region. While China enters the Arctic through its partnership with Russia, powerful non-Arctic European states which are already Arctic Council observers – such as France, Germany and the UK – will gain greater relevance through their leading contributions to NATO.

The war appears likely to transform strategic relations among the Arctic states, binding the A-7 even closer while widening the gap with outlying Russia. This is the new geopolitical reality in the circumpolar Arctic, and is a direct consequence of Russia's aggressive behavior. Pan-regional cooperation and the restoration of the Arctic Council should remain the long-term goals for the A-7, but for now the Arctic is fundamentally divided, and will remain so until Russia's war is resolved, one way or another.

"Arctic Geopolitics: The Svalbard Archipelago," Andreas Østhagen, Otto Svendsen, and Max Bergmann, Center for Strategic & International Studies, 14 September 2023 [61] https://www.csis.org/analysis/arctic-geopolitics-svalbard-archipelago

Abstract:

The Arctic is increasingly viewed as an arena for power projection and spillover from conflicts elsewhere. In this regard, the Svalbard archipelago is an important case study because it has economic, scientific, political, and security implications for states in the High North, the United States, and the North Atlantic Treaty Organization (NATO) alliance. Svalbard's unique status as a sovereign territory of Norway with provisions for foreign nationals, Russia's presence on the territory and its interests at sea, as well as the archipelago's proximity to critical Russian military locations make Svalbard a potential geopolitical flash point. This brief examines the geopolitics of Svalbard and the security implications for Norway, the United States, and NATO. Through close examination of the archipelago, the authors aim to contribute to a more granular understanding of Arctic geopolitics and how NATO and the United States can best prepare for heightened geopolitical tensions in the region.

Current & Relevant Information:

Introduction

The emphasis on cooperation that has long characterized Arctic politics has deteriorated. During the Cold War, despite the geographical proximity between NATO member Norway and the Soviet Union, a geopolitical equilibrium ensured that

interstate clashes in the Arctic were practically nonexistent. In fact, both sides pursued significant scientific collaboration in the region. The early 2000s saw rapid growth in Arctic interest and engagement among Arctic states, including Russia, on everything from economic development to climate research. However, simultaneously, Russia has increased its military presence and activity in the North. After Russia's annexation of Crimea in 2014, security affairs in the Arctic became more tense, with the final remnants of regional cooperation evaporating after Russia's full-scale invasion of Ukraine in 2022. Moreover, some see Russian overtures to deepen ties with China as strengthening Beijing's claim of being a "near-Arctic" state and thus posing a challenge to the seven other Arctic states (Canada, Denmark, Finland, Iceland, Norway, Sweden, and the United States).

This growing geopolitical tension in the region warrants closer scrutiny by European High North countries, the NATO alliance, and the United States. Few case studies embody this development better than Svalbard, a Norwegian archipelago with an area about twice the size of Belgium and located approximately 650 kilometers north of the Norwegian mainland and just 1,000 kilometers from the North Pole. An analysis of the links between geography and power politics around Svalbard—Norway's northernmost territory, with a unique political and economic status—reveals the complexity of the geopolitical competition in the Arctic, and how simple depictions of conflict/no-conflict scenarios can be unhelpful.

Svalbard's unique regional position is especially pertinent. The archipelago has significant strategic importance, as its location could be crucial to controlling access to and from Russia's Northern Fleet on the Kola Peninsula, which houses Russia's strategic nuclear submarines. Waters around Svalbard also contain plentiful fish stocks, such as cod and shrimp, and extensive deposits of metal minerals. Melting ice will gradually improve access to some of these resources and may facilitate an increase in shipping activity in this part of the Arctic.

In this regard, Russia is particularly attentive to the implications of climate change for the commercial development of the Northern Sea Route, which offers a shortcut for vessels traveling between Europe and Asia, primarily along the Russian Arctic coast. However, even in the Arctic, where a melting icescape presents new opportunities for states to maneuver, overly broad framings of the geopolitical rivalry term are often too simplistic. Instead, it is imperative to more closely examine specific cases of geopolitical competition and rivalry in the North.

Both scholarly and journalistic works tend to misunderstand the sovereignty of Svalbard and its associated geopolitical dimensions. Despite Norway having "full and absolute sovereignty" over Svalbard, according to the Svalbard Treaty, misconceptions abound regarding Svalbard as a "shared space" or Svalbard's legal status being ambiguous. Another dubious claim is that the "Norwegian interpretation of the Svalbard treaty is disputed by its other signatories." Moreover, some argue the

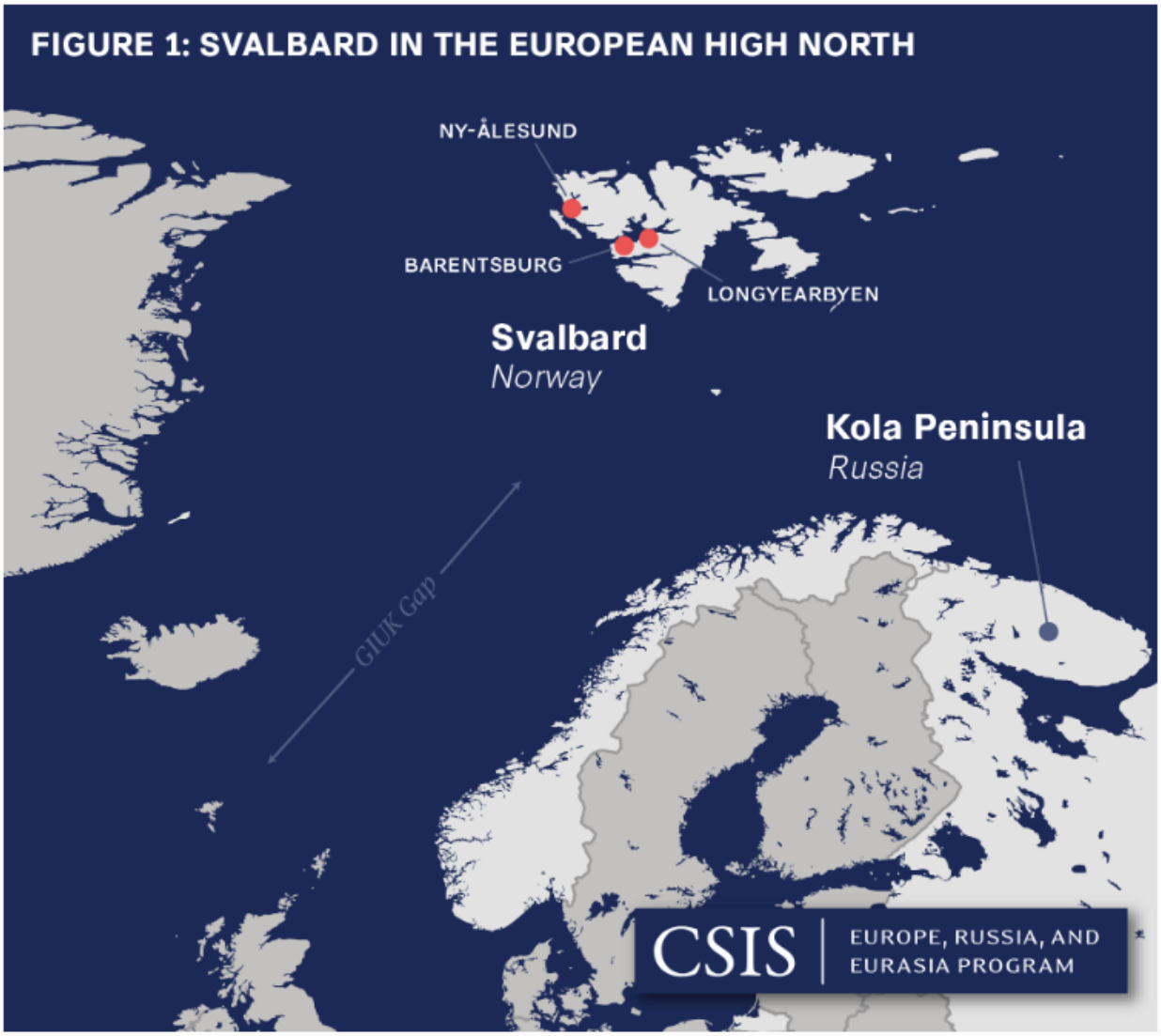
archipelago is shrouded in “NATO ambiguity” and question whether it is covered by the alliance’s territorial security guarantee.

Statements such as these are inaccurate and obscure the legal and political situation surrounding Svalbard. They seem to confuse the ambiguity concerning the archipelago’s maritime zones with a more fundamental dispute about Norwegian sovereignty of the territory writ large and—unintentionally or deliberately—amplify a narrowly circumscribed issue while ignoring other geopolitical dimensions concerning Svalbard.

One way to overcome this inaccuracy is to examine the more tangible geopolitical dimensions of Svalbard in international politics. These include (1) explicit challenges to Norwegian policies on land, (2) disagreement over the legal status (sovereign rights) of the maritime zones, and (3) the potential military use of Svalbard in a larger conflict with Russia.

Context: Political History of Svalbard

The origin of Svalbard’s unique legal status may be traced to its role as a locus for commerce and trade centuries ago. Initially named Spitsbergen by the Dutch explorer Willem Barentsz in the sixteenth century, the archipelago was renamed Svalbard by Norway in 1925, while Spitsbergen is now the name of the archipelago’s largest island. Only in the early twentieth century, when promising discoveries of coal were made and mines were established, were negotiations opened to establish an administration of the Svalbard archipelago, at first driven by Norway’s wish to define the territory’s legal status after the dissolution of its union with Sweden in 1905. Although various models were discussed before World War I, postwar negotiations in 1920 resulted in the Spitsbergen Treaty (here referred to as the Svalbard Treaty), which confirmed Norway’s sovereignty over the territory.



After affirming Norway's full and absolute sovereignty and responsibility for managing the islands, the treaty attempts to secure the economic interests of foreign nationals as a key objective. This was done by including provisions on equal rights and nondiscrimination in the most relevant economic activities at the time. For example, Norway may not treat other nationals less favorably than its own citizens in certain areas, and taxes levied on Svalbard in connection with mining may be used solely for local purposes. Moreover, the islands may not be used for "warlike purposes," and no military fortifications may be built on the islands.

The Soviet Union was not present during the treaty negotiations due to its ongoing civil war, so the one concern at the time was whether the Soviets would challenge the treaty, given their geographic proximity to the area and claims of historic use. In 1924, however, the Soviet government unconditionally and unilaterally recognized Norwegian sovereignty over the archipelago and acceded to the treaty in 1935. The Soviet Union made several attempts to gain special status on Svalbard in the

aftermath of World War I and later in 1944 with a suggestion by Soviet foreign minister Vyacheslav Molotov to Norwegian foreign minister Trygve Lie that the treaty should be scrapped in favor of a bilateral arrangement. However, Norway firmly rejected this suggestion.

International economic interest in Svalbard plummeted before World War II, and soon only Norwegian and Soviet mining companies conducted economic activities there. Consecutive Norwegian governments have sought to maintain the Norwegian population on the islands, predominantly by subsidizing coal mining with the state-owned company Store Norske and supporting the islands' largest community, Longyearbyen. Similarly, successive governments in Moscow sought to maintain a sizeable Soviet population through the state-owned mining company Arktikugol in the company towns Barentsburg, Pyramiden, and Grumant—of which only Barentsburg is active today.

A Changing Landscape: The Geopolitical Relevance of Svalbard

As interest in Arctic issues has risen over the last decades, Svalbard and its special legal provisions, economic history, and geostrategic location have received considerable attention. Three specific geopolitical dimensions warrant further examination from both Norwegian and Transatlantic observers.

1. Challenges to Norwegian Svalbard Policies

While Norway's sovereignty over Svalbard is undisputed, there have been debates since 1920 about how Norway adheres to the treaty and implements its provision. As the sovereign, Norway regulates all activities in the archipelago, but citizens and companies from a number of other countries operate there. Over time, the critique from some treaty signatories over alleged treaty breaches has grown as Norway has implemented stricter environmental regulations, increased the coordination of research activities, and limited certain types of activities, especially with concern for the fragile environment on the archipelago.

The complaints have primarily come from the Soviet Union and, later, Russia—the only country with a sizeable albeit declining population and distinct communities in the archipelago. These complaints have focused on Russian companies not being allowed to use helicopters beyond mining activities, expansion of environmental regulation, creation of national parks, and questions concerning the use of a satellite station for military purposes. One additional issue that has attracted Chinese interest in Svalbard has been Norwegian efforts through the Norwegian Polar Institute to better coordinate research in Ny-Ålesund, a small research settlement on the island of Spitsbergen. Here, China expressed concerns over whether Norway was overreaching in regard to its treaty obligations to foreign entities. As China has increasingly engaged with Arctic politics and governance, it has also become increasingly concerned with its "rights" and "interests" on Svalbard. This is reflected in China's 2018 Arctic policy, which, despite its status as a near-Arctic state, invokes

provisions of the Svalbard Treaty six times to legitimize certain Chinese rights in the Arctic writ large.

Another challenge has been Russian complaints about Norway using Svalbard for military purposes in breach of Article 9 of the treaty, which states, “Norway undertakes not to create nor to allow the establishment of any naval base in the territories specified in Article 1 and not to construct any fortification in the said territories, which may never be used for warlike purposes.” The Norwegian coast guard docks in Longyearbyen to resupply, and the Norwegian navy sends a frigate to Svalbard regularly to highlight Norwegian sovereignty and capability in the area. Russia, in turn, argues this is a challenge to the Svalbard Treaty, though the treaty does not hinder Norway having military presence on or around the archipelago as long as the purpose is not “warlike.” Russian sensitivities to the question of military activity on Svalbard relate not only to the treaty but primarily to the proximity of Svalbard to the Northern Fleet on the Kola Peninsula and its strategic position to defend Arctic territory and project power in the Greenland, Iceland, and United Kingdom–Norway (GIUK-N) gap.

Similar complaints have come from Russia concerning the Norwegian satellite station located on Svalbard, one of the largest in the world, which has prompted Russia to question whether the data gathered are being used for warlike purposes. Norway is obviously sensitive to such protests given its treaty obligations in Svalbard and the broader long-standing but fragile tranquility that has existed in the Arctic region. However, Norway has consistently manifested its treaty obligations to limit military activity for warlike purposes on Svalbard.

While complaints such as these from Russia or China do not directly erode Norwegian sovereignty, the sum of the complaints could amount to a larger challenge to how Norway adheres to the treaty. In addition, Russia—if it wanted to escalate a conflict while retaining some form of plausible deniability—could initiate actions to undermine Norwegian sovereignty using these complaints as justification. Notably, the Russian consul general in Barentsburg recently led a highly symbolic military-style parade that involved a helicopter and dozens of vehicles waving Russian flags to mark the anniversary of the Soviet Union’s defeat of Nazi Germany. Albeit primarily done as a way to get attention by the new director of the Russian state-owned mining company Trust Arktikugol, Ildar Neverov, this event does highlight the increasingly tense relations on Svalbard.

Statements from Russia regarding Svalbard seem to continually support an underlying policy of strategic uncertainty concerning both challenges to Norwegian rules and regulations on Svalbard and Russia’s legal position when it comes to the maritime zones around Svalbard. At the same time, it is unlikely that undermining the Svalbard regime at large or dispelling the treaty itself is in Russia’s interest. Russian companies and actors respect Norwegian sovereignty and authority in practice. As the only other country with a sizable population on Svalbard and with

interests in various economic activities ranging from coal mining to tourism and fisheries, the status quo suits Russian economic interests as well as Russia's desire to ensure the Barents Sea region remains politically stable.

2. Challenges to Norwegian Jurisdiction around Svalbard

Second, there is an ongoing disagreement over the status of the maritime zones around the territory beyond 12 nautical miles from the archipelago's shores. The question is whether the 200-nautical-mile maritime zone and the continental shelf around Svalbard are covered by the provisions in the 1920 Svalbard Treaty.

In recent years, the European Union, in particular, has been a proponent of the former view—that the fisheries protection zone (FPZ) and shelf are subject to Norwegian jurisdiction but that Norway must adhere to the Svalbard Treaty's provisions. This issue came about because of a dispute between Norway and the European Union over the right to fish for snow crabs since 2015, which led to another dispute over cod quotas from 2020 that emerged as a result of Brexit. Russia has taken a different approach, maintaining a form of strategic ambiguity or uncertainty as to its position, while arguing that Norway could not establish any zone unilaterally and thus only, flag states have jurisdiction over fishing vessels in the FPZ. Regarding the shelf, however, Russia argues that it is covered by treaty provisions.

There are two aspects of this dispute with potential to further intensify geopolitical competition in the region. The first relates to access to resources and possible attempts by fishing vessels from various countries to claim their treaty-protected rights, as exemplified with the European Union in the snow crab case. China, which has the world's largest fishing fleet, could hypothetically also assert itself on this issue through possible Chinese claims to equal access to fishing rights, though no official attempts have been made so far.

The second issue is the possible escalation of interactions in the FPZ between Russian vessels and the Norwegian coast guard. Although escalation when interacting with Russian fishing vessels is the primary concern, questions are increasingly being asked about the activities of Russian vessels at large in Norwegian waters. For example, in January 2022, one of the two subsea cables crucial for information technology on Svalbard was cut after Russian fishing vessels had been operating extensively in the area. Although Norwegian authorities have not publicly identified the perpetrator, many have speculated the incident is connected to Russian intelligence gathering and hybrid activity in the Norwegian Arctic. With the sabotage of the Nord Stream gas pipelines in the Baltic Sea in September 2022, this issue became increasingly relevant in the Norwegian security and defense debate.

Complicating the matter is the fact that both fishing and research vessels from Russia have access rights to Norwegian waters that are difficult to curtail. The fishing vessels' ability to fish throughout the Barents Sea regardless of zonal

boundaries constitutes one of the core pillars of the successful co-management scheme of fisheries cooperation between Norway and Russia. The research vessels' access to the Norwegian exclusive economic zone (EEZ), the FPZ, and the shelf rests on the United Nations Convention on the Law of the Sea (UNCLOS) Article 246, which states, "The coastal State should normally grant its consent" except in a few specific circumstances. In other words, the burden of proof concerning Russian vessels conducting illegal activities in Norwegian waters including the FPZ lies with Norwegian authorities. This creates a significant operational and bureaucratic hurdle for Norwegian law enforcement and limits Norway's deterrence of Russian gray zone operations.

Making inspections and possible arrests in Svalbard's waters particularly sensitive is Russia's refusal to acknowledge the FPZ as waters where Norway has the authority to inspect and arrest—although in practice Russian fishers generally accepts inspections by the Norwegian coast guard. Still, in a tenser security environment, the concern has been that Russia could claim that Norway is exceeding its jurisdiction if Norwegian authorities inspect and arrest a Russian vessel. In turn, Russia could respond by threatening to use military force, as it has previously hinted at when Russian fishing vessels were arrested in the FPZ by the Norwegian coast guard in the early 2000s.

3. The Military Use of Svalbard in an East-West Conflict

Finally, the role Svalbard might play in a large-scale conflict that involves the Arctic cannot be ignored. Although Article 9 in the Svalbard Treaty states that the area should not be used for "warlike purposes"—which is not the same as a de-militarized zone—the degree of concern over the possible use of the archipelago for military purposes has historically fluctuated with the degree of East-West tension.

During the Cold War, the Soviet Union was particularly concerned about the possible military use of the archipelago, demanding strict adherence to the treaty's ban on the use of the islands for warlike purposes including the establishment of fortifications or naval bases. If war were to break out, control over Svalbard would have been the primary motivation for the Soviets, both to limit NATO command and to use it as a base for Russian military forces in order to protect strategic submarines with nuclear ballistic missiles. This was the central component of the Soviet Union's bastion defense concept.

Increased Russian military activity in the European Arctic since 2005 has highlighted Svalbard's geostrategic location. Although there are no military fortifications on the archipelago as per the Svalbard Treaty, the concern for Norway is that it would rapidly be subject to Russian attempts to control it if a full-scale conflict between NATO and Russia broke out. The archipelago's proximity to the Russian Northern Fleet, located at Severomorsk in the Kola Peninsula, and Svalbard's strategic position as a potential base for so-called anti-access and area denial (A2AD)

operations in the Barents Sea and the North Atlantic are still the primary drivers of Russian security interests in the region. Some are questioning whether Svalbard truly holds such a strategic position given the technological advancements in Russia's long-range ballistic missiles and the change in defense concepts in the North. Regardless, it seems likely that Svalbard will remain a potential area for Russian power projection, as Russia will likely be intent on rebuilding its Arctic force posture and capabilities attrited in Ukraine and in response to Sweden and Finland's NATO memberships.

Threat Landscape: Russia vis-à-vis Norway and NATO

From the perspective of a Norwegian defense planner or policymaker, the main security concern in regard to Svalbard will undoubtedly remain Russia. Across all the geopolitical dimensions highlighted above, the Russian threat looms large since the military use of the archipelago is relevant only in a NATO-Russia conflict. It is rather unthinkable that other EU or NATO states would significantly impede Norway's territorial sovereignty in the territory through either covert or military action. Moreover, other potential adversaries in a large-scale conflict (e.g., China) are too far removed from Svalbard to pose any short- to medium-term threat.

Small-scale challenges to Norwegian policy on land or jurisdiction at sea, however, include a range of actors that could pose a challenge other than just Russia. As mentioned, the most active challenge to the Norwegian position regarding maritime zones in recent years has come from the European Union and some of its member states: first, over access to snow crab fisheries and, second, over the share of cod quotas in the FPZ after Brexit. It is also possible to imagine countries other than Russia and EU member states, such as China, moving to challenge the Norwegian position or claiming equal rights to economic activity in the water column or on the shelf.

Still, from a geopolitical perspective, Russia remains the primary security concern due to the high number of Russian fishing vessels operating in the zone each year in accordance with the co-management regime of shared fish stocks in the Barents Sea.[39] Despite the one-time issue over Chinese protests regarding research, the same conclusion holds for possible disputes on land over Norwegian policies and alleged violations of the Svalbard Treaty by Russian officials.

While the Russian geopolitical threat remains paramount, Chinese encroachments facilitated by an isolated Russia may complicate the Arctic security landscape in the longer term. The coast guard agencies of Russia and China recently signed a cooperation agreement on strengthening maritime law enforcement to great fanfare in Murmansk, a city on Russia's western flank close to Norway. Moreover, when all other Arctic coast guard agencies suspended their participation in the Arctic Coast Guard Forum, Russia invited China to join the forum—clear signs of China's expanding presence in the High North. As Iris A. Ferguson, U.S. deputy assistant

secretary of defense for arctic and global resilience, has put it, Chinese efforts aim "to normalize its presence and pursue a larger role in shaping Arctic regional governance and security affairs."

Recommendations for U.S. Policy

With its 2022 National Strategy for the Arctic Region, the administration under U.S. president Joseph Biden sent a strong and clarifying signal that it would prioritize the region. The strategy effectively updates the 2013 National Strategy for the Arctic Region and is organized around four pillars of action: security, climate change and environmental protection, sustainable economic development, and international cooperation and governance. Regarding the security pillar, the strategy aims to expand the military and civilian capabilities necessary to protect U.S. interests in the Arctic—for example, through increasing the U.S. Coast Guard's icebreaker fleet. While the strategy states that "the US seeks an Arctic region that is peaceful, stable, prosperous, and cooperative," it also recognizes that rising geopolitical tension, especially following Russia's invasion of Ukraine, may bring geopolitical competition to the Arctic in the future.

With these considerations in mind, the United States should pursue the following course of action.

1. **Push for a coordinated NATO approach with special consideration for Svalbard.**

As previously noted, Svalbard's geographical position could be central in controlling access to and from Russia's Northern Fleet on the Kola Peninsula, which houses Russia's fleet of nuclear submarines and is Washington's primary focus in the High North. Thus, Washington needs to recognize that Svalbard represents a potential flash point in a looming Arctic power struggle and should work with Norway to tailor deterrence in a manner that minimizes the impact on the archipelago's unique legal status. This approach should carefully balance a robust defensive posture while taking Svalbard's status into account to minimize the risk of further military tensions.

Given the risk of the Kremlin using Article 9 of the Svalbard Treaty as pretext to escalate any expanded NATO presence, the alliance should credibly signal its intention to minimize capability development and military exercises in or around Svalbard. To avoid compromising overall deterrence, this restraint should be complemented by a strong amphibious force in mainland Norway, including through military exercises responding to conventional Russian escalation in or around Svalbard. Part of this effort could be built into NATO's biannual Cold Response exercises, which Norway hosts to test allied troops' ability to fight and survive in an Arctic environment. At the same time, clarifying that NATO's Article 5 covers Svalbard as part of Norwegian territory is important to avoid any strategic ambiguity.

A major diplomatic line of effort could also be achieving alliance-wide consensus on Svalbard Treaty applicability of Svalbard's maritime zones. This means resolving the ongoing dispute between Norway and the European Union to avoid Russian exploitation of an allied rift possibly in favor of the Norwegian position.

2. **Work with regional allies to strengthen resilience of critical infrastructure, such as fiber-optic cables on the Arctic seabed.**

A recent CSIS brief examining the Russian Arctic threat after the Kremlin's invasion of Ukraine notes that Russia's use of hybrid tactics in the region "seems to be increasing in both frequency and severity." These fears are first perhaps best exemplified by the severing of a critical subsea information technology (IT) cable serving Svalbard while Russian fishing vessels were operating extensively nearby. Norwegian authorities have also arrested several Russian nationals for illegal photography across the country and have observed unannounced drone sightings over Svalbard. Western stakeholders seemed to acknowledge this vulnerability following the sabotage of the Nord Stream 1 and 2 pipelines, especially given Norway's importance as Europe's main pipeline gas supplier. In fall 2022, Norway deployed its Home Guard to protect critical maritime infrastructure, a move that was supported by NATO ship patrols in the North Sea. The U.S. National Strategy for the Arctic Region also recognizes the need to address this risk, stating Washington's intent to "make targeted investments to strategically enhance security infrastructure as required to enable these aims, while building the resilience of critical infrastructure to protect against both climate change and cyberattacks."

Given the depleting effects of Western sanctions and the weakened state of Russia's Arctic forces, if tensions between NATO and Russia continue to escalate, it would be reasonable to expect the Kremlin to increase its use of hybrid tactics around Svalbard, at least in the short- to medium-term. Sporadic ad hoc initiatives to counter Russian hybrid threats may thus fall short of the mark and would benefit from a more structured NATO approach. For example, NATO can facilitate regional tabletop exercises spanning the political and military spectrum that incorporate hybrid elements into conventional military scenarios. Other options include improved consultation and information-sharing channels between allies, government institutions, and the private sector to enhance initial detection and response to emerging hybrid crises.

3. **Establish the acceptable scope of regional governance, specifically the role of China.**

Finally, the United States should attempt to preserve what remains of the Arctic's geopolitical exceptionalism—the increasingly tenuous status quo that has historically excluded hard security issues from regional governance. This should include building upon the resumption of limited work in the Arctic Council, announced in June 2022 by seven of the council's eight member states—Canada, Denmark,

Finland, Iceland, Norway, Sweden, and the United States. Part of this effort should also address China's growing ambitions in the Arctic and their implications for Svalbard. The United States should emphasize that China, as a near-Arctic state, is welcome to engage with regional stakeholders on environmental issues and sustainable economic development in the Arctic, including through its legitimate research activities on Svalbard.

However, the United States and Norway should clearly signal that any undue Chinese encroachment into the governance and security affairs of the European High North will not be tolerated. It should be noted that the manifestation of Arctic geopolitical tension is not uniform across the circumpolar region. Rather, military activity in the Arctic is constrained to various subregions, most prominently the High North/North Atlantic region and the North Pacific/Bering Sea region. In the former, Russia's military buildup of the Northern Fleet and surrounding forces factors into the Kremlin's larger geostrategic competition with the West and is linked to nuclear deterrence capabilities and access to the Atlantic writ large. In the latter region, Russia's military buildup contributes to increased bilateral cooperation with China and highlights the belated U.S. awakening to Arctic security and geopolitical issues on its northwestern periphery.

Although the actions and related effects of Chinese actors in the Arctic so far have been rather limited, China has increasingly attempted to gain a foothold and influence in various parts of the Arctic and in different branches of Arctic economic activity. China's interests do not necessarily align with those of Western Arctic states, though when it comes to specific economic projects in the Arctic, Chinese investments and capital might still be in demand and warranted. The effects of the Russian invasion of Ukraine in 2022 are likely spur more China-Russia cooperation in the Arctic.

This risk of undue Chinese encroachment into the European High North is particularly acute in regards to the closer cooperation announced between the Chinese and Russian coast guards. China's coast guard has displayed a tendency for aggressive behavior, exemplified by Chinese vessels recently blocking and threatening a Philippine patrol vessel in the South China Sea. China has developed expansive sovereignty claims over the South China Sea, most of which were rejected at a tribunal brought against China by the Philippines under UNCLOS in 2016 at the Permanent Court of Arbitration in The Hague. A flotilla of Chinese vessels also recently entered a gas site operated by Vietnamese and Russian state firms in Vietnam's EEZ. Similar Sino-Russian cooperation in the maritime domain has already manifested elsewhere in the Arctic region as the U.S. Coast Guard encountered Chinese and Russian warships operating together near Alaska on several occasions in recent years.

While unlikely in the short term, the Chinese and Russian coast guards could increase their presence in the Barents Sea in the long term, possibly using the

legitimate presence of Chinese and Russian nationals and entities in or around Svalbard as pretext. This approach would not be dissimilar to Russian operations to protect Russian nationals in South Ossetia and Crimea. The United States and Norway should be cognizant of this dubious track record and clearly signal that any similar encroachments will not be tolerated in the waters around Svalbard.

Concluding Remarks

Discussions of Arctic security often fail to examine specific issues of concern, exemplified by an often-counterproductive framing used to discuss the Svalbard archipelago. Research and discussions about such potential flashpoints and their related issues are needed to dispel commonly held misconceptions, especially when it comes to understanding sovereignty and sovereign rights, as well as distinguishing between different types of security threats and potential conflicts.

As per the 1920 Svalbard Treaty, which Russia has acceded to and has not challenged, sovereignty over the area is undisputed. As part of Norwegian territory, Svalbard is also unequivocally covered by NATO's Article 5. Given the heightened tensions between Russia and the West, Norway must work with the United States and other allies to clearly refute any misconceptions about NATO ambiguity on the archipelago. This work should start at home by cementing a shared understanding of the legal and political complexities of Svalbard issues within the alliance.

Arctic security studies often generalize, leading to sweeping conclusions that do not consider regional complexity and disparate security challenges north of the Arctic Circle. Closely examining specific Arctic environments such as Svalbard is necessary for a more granular understanding of regional geopolitics and how possible conflict scenarios might unfold in the North.

"The Arctic, a Geographical Region Beset by Geopolitical Tensions with Russia," Quentin Martel, Network for Strategic Policy Briefs, 4 October 2024 [62]
https://ras-nsa.ca/the-arctic-a-geographical-region-beset-by-geopolitical-tensions-with-russia/

Overview:

Geopolitical tensions linked to the Arctic have developed as a result of Russia's hostile attitude in the region. The war in Ukraine has played an important role in accentuating this crisis. For several years, Russia has intensified the militarization of its Arctic territory, raising concerns about its intentions in the Far North. This has led to an escalation of tensions with other countries in the region, such as Canada, the United States, and several European countries, who are concerned about this military build-up. However, these diplomatic tensions over the Arctic are nothing new. The region has already been the scene of similar confrontations.

In particular, the political and military tensions of the Cold War seem to be repeating themselves in our own time. What distinguishes today's situation from that of the

Cold War is the interests at stake: today, they are primarily strategic, economic, and military, rather than ideological. The Arctic is an economically important region for Russia, the USA and Canada, as well as for several European countries such as Finland, Norway, Sweden, and Denmark. The Canadian Arctic Archipelago, which accounts for 40% of the country's territory, is a major strategic area for the country. It borders Russia, which claims part of the Arctic Sea as part of its internal waters, justifying this position by its attachment to the Siberian Islands. This region of the world has been the scene of diplomatic tensions for many years, compounded by global warming, which is a key factor in the area's environmental and political degradation.

These recent tensions between Arctic countries have led Canada to recognize the need to modernize its capabilities in the region, in response to the political and military stakes exacerbated by the conflict in Ukraine. It is crucial to understand why Canada is reviewing its Arctic policy strategy, and to examine what is at stake.

The aim of this policy brief is to demonstrate that the Arctic region is undergoing a major geopolitical shift, threatening the area's political stability. Added to this vision is the idea of a hybrid war, combining military and non-military means. Misinformation and foreign interference seem to be the new weapons of this hybrid war, propagated by Russia, they can have a significant impact on the stability of the Arctic region. For this reason, Canada must adopt a defense policy that is adapted to a Russia that is militarizing and not hesitating to use non-military means to impose its influence around the world.

Current & Relevant Information:

The Arctic: a geographical zone beset by diplomatic tensions

Geopolitical tensions and the Arctic's vulnerability to global warming make it a difficult region to control. Far from being spared political disagreements between the major powers, the region has seen diplomatic tensions intensify since the start of the war in Ukraine. This has had an impact on the functioning of the Arctic Council, which has been considerably slowed down by its members, who see Russian action in Ukraine as a violation of international law and a threat to the global stability the Council strives to maintain.

Global warming is both a threat and an opportunity for the major powers. This paradox now opens up access to areas of exploitation previously inaccessible due to ice. The region, rich in natural resources such as coal, iron, gold, and uranium, as well as oil and natural gas deposits, is therefore subject to an increase in industrial installations. It is estimated that around 30% of the world's oil reserves are located in the Arctic, a fact that is attracting the interest of the major powers. Some countries consider that environmental protection is essential and that the region must be protected from human action, while others see it as an opportunity for economic and military development. Such is the case of Russia, which is stepping up its military

presence, justifying this stance by its desire to develop its Arctic territory, while defending the integrity of its borders against the effects of global warming and foreign interference.

This scramble for the region's resources has created a climate comparable to that of the Cold War, characterized by diplomatic tensions, claims to the ocean floor and the allocation of undersea resources. This climate of tension evokes the event of 2007, when Russia planted a flag on the bottom of the Arctic Ocean, claiming sovereignty over the seabed. An image perceived as a political maneuver on Moscow's part.

Russia's rise to power in the Arctic

The war in Ukraine has profoundly altered the global geostrategic order, plunging the world into an uncertain future, while redefining the diplomatic chessboard in the Arctic region. In particular, the adoption of sanctions against Russia by the member countries of the Arctic Council. In response to these new dynamics, Arctic countries are seeking to strengthen their military budgets in order to ensure their regional security and adapt to increased geopolitical stakes. This is what Norway and Denmark report. They explain, however, that an armed conflict is unlikely, but that a hybrid war is conceivable given Russia's attitude in the region. The international context unfolding before our eyes is leading the major powers into a competition in which the Arctic will be at the heart of discussions. Canadian and American intelligence reports point to new military bases and assets in the Russian-controlled zone.

This militarization is nothing new, however, as Moscow has already indicated its desire to increase its presence in this part of the world. The country seems to be carrying out numerous military exercises in the region, such as firing ballistic missiles into the Barents Sea. A warning sent out by Moscow to demonstrate its superiority and reaffirm its desire to monitor this part of the world. Added to this is a feeling of encirclement following the accession of several Arctic countries to NATO. Russia's changing attitude is prompting Canada to reassess its military-strategic stakes in the region, in order to ensure the protection and defense of its Arctic archipelago.

The era of war in Ukraine has opened a new door to the use of disinformation to influence foreign populations. Although disinformation campaigns, integrated into the concept of hybrid warfare, have become a crucial factor in national defense and population protection, it is important to qualify them. These campaigns are used to provoke debate within national politics, exacerbate social cleavages or sow mistrust in a government. They can also disrupt a country's democratic process. The aim is to disseminate totally or partially erroneous information, via uncontrolled channels or social networks, targeting specific criteria that will have a moderate impact on national security or public opinion. Used for propaganda purposes, it can be a

relatively effective weapon. Russia seems to be adept at these methods, which cannot be associated with any one country, as they are difficult to detect and attribute, risking diplomatic tensions. However, several reports document the use of disinformation during Russia's annexation of Crimea. As far as the Arctic is concerned, Russian disinformation could harm Canadian interests, by creating discord in public opinion or influencing markets beneficial to the Russians. This approach is mentioned in Whitney Lackenbauer's policy brief.

Although the Canadian government has put in place measures to limit the impact of disinformation, the challenge remains immense. In a digital world such as ours, it is extremely difficult to control the false information that is disseminated around the world. The rapid response actions established by the Canadian government are not enough to limit the impact of misinformation on communities.

Military development, a necessary issue for the Canadian government

Canada recently recognized the importance of remilitarizing forces in the region to prepare for any eventuality. It also spoke of its desire to improve NORAD, so as to be able to meet future challenges posed by the evolution of aviation, while protecting borders and ensuring national security. In 2015, the government launched the GBDA (ground-based air defense system) project. But this project is not sufficient in the face of new military technologies from certain countries. The Canadian armed forces are dependent on the Americans, with NORAD, which is commanded by the United States, ensuring permanent airspace security. But that's not enough: we need a territory-based system that's oriented towards the Arctic.

This vision is also shared by the US Department of Defence in its new Arctic Strategy, published on June 21, 2024. The High Arctic region looks set to become the new surveillance point for the United States and its allies. Canada, the U.S. and other Arctic nations are demonstrating a willingness to step up their military presence in the region, justifying this stance by the fact that the world is going through a delicate period in which global geopolitical tensions are omnipresent. However, Canada finds itself in a delicate situation. Its military capabilities are limited, in part due to a military funding policy which considers that the country, because of its geographical position, would not be vulnerable to direct attack. Today, this perception is being challenged as tensions in the High Arctic intensify. Lack of resources is a major obstacle, forcing the country to modernize its forces and develop a deterrence presence in the region.

Recommendations and considerations for Canada

Faced with rising geopolitical tensions in the Arctic, Canada must strengthen its capabilities to protect its interests and those of its allies. The country must take into account the fact that a new geostrategic order is likely to emerge, in which the Arctic will be the scene of military and diplomatic action. Anticipation is the lifeblood of defense, and anticipating a crisis doesn't mean that it's going to happen, but that

when it does, the country will be in a position to deal with it. Canada's military lag is evident in all areas. It is imperative for the country to re-evaluate its defense policy, considering funding in line with NATO recommendations, up to 2% of GDP. At the same time, it needs to strengthen its missile and aircraft interception capability, particularly in remote and high-risk regions. This includes modernizing NORAD in agreement with the United States, acquiring ground-air defense systems and setting up forward defense bases for enhanced protection in the event of high-intensity conflict. It also needs to reassess its capacity to protect its maritime borders and ensure a deterrent military presence in the Arctic.

The emergence of new methods of disinformation requires Canada to adopt a policy to combat them. The war in Ukraine has brought to light new methods of disinformation associated with artificial intelligence, and it would not be surprising to see Russia using them to destabilize the High Arctic. The rapid action program against disinformation set up by the government could be a good means of action, making it possible to contain false information that could circulate on networks or through Arctic communities.

Finally, Canada could strengthen its strategic positions by opening its bases to NATO countries for collective protection. This would make military forces rapidly available, while compensating for the lack of resources currently allocated by the government to the protection of Arctic territory. What's more, Canada has solid expertise in polar military operations and strategies adapted to the region's extreme conditions. This approach could be in line with the common desire of Arctic countries to strengthen their means of preventing any eventuality in this part of the world.

"Russia's Arctic Geopolitical Ambitions," Yashas P. Raju, Modern Diplomacy, 7 October 2024 [63] https://moderndiplomacy.eu/2024/10/07/russias-arctic-geopolitical-ambitions/

Overview:

It has been a strong ambition of multiple Soviet and Russian Leaders to gain control over the vast rich resources of the Arctic regions. Vladimir Putin was among these leaders but also the one who turned this dream into reality. In 2007 a group of Russian divers placed a ceremonial flag below the North Pole and claimed an area contested by both The Dominion of Canada and The Kingdom of Denmark, at the moment this act didn't hold much importance amongst the masses but in 2023 The Russian Federation got approval for the data behind much of its arctic ocean seabed claim. Although the approval was not the final word on the rights in the Arctic, it would grant The Russian Federation an additional 1.7 Million Sq.Km of Seabed.

Current & Relevant Information:

The document "*Strategy for Developing the Arctic Region of the The Russian Federation and Providing National Security for the Period Until 2035*" estimates about 17.3 billion tones of oil, and 85.1 trillion cubic meters of gas stored under the arctic seabed. Alexandra Land is one of The Russian Federation's most important islands and is the nation's northernmost military outpost. It is close to The Kingdom of Norway's Svalbard Archipelago and Greenland. It is a significant island that supports the Russian Federation Military in protecting the Kola Peninsula. The Kola Peninsula holds the Northern Fleet Headquarters. The Northern Fleet's headquarters is situated in Severomorsk, a Murmansk County settlement. The Russian Federation's most powerful fleet is spread out across various bases in the Murmansk vicinity. The Northern Fleet originated in 1733 but was formed as an up-to-date structure in 1933. The Northern Fleet has several stations including Polyarnyy, Olenya Bay, Gadzhiyevo, Vidyayevo, Bolshaya Lopatka and Gremikha. The Kola Peninsula which is home to the Northern Fleet has facilities for submarines, surface ships, naval infantry and large arms stores. It also possesses strategically vital infrastructure such as the Olenya Air Force Base. In 2021, they were termed among the Russian Federation's most prominent armed forces-administrative units similar to military districts. The Norwegian Joint Headquarters has a hotline with the Northern Fleet to avoid misunderstandings as well as unplanned escalation.

The Russian Federation has reopened more than 50 Soviet Military Bases in the Arctic which includes 13 Airbases, 10 Radar Stations and 20 Border Outposts. They increased the number of Nuclear weapon-engaged submarines in their fleet, new Hypersonic Missiles were engineered to stay clear of U.S. defenses. Some experts suggest that any other nation would require at least 10 years to catch up with the Russian Federation's Military activity in the Arctic. The Russian Federation also has the largest fleet of icebreakers in the world and as of 2019 records, it includes 30 diesel-powered icebreakers, 4 nuclear-powered icebreakers and the only nuclear-powered cargo ship in the world. The Northern Sea route spans from the Bering Strait in the East to the Kara Gate in the West which is approximately 5600 km. Usually viewed as an international passageway by states, the Russian Federation views it as its internal waterway.

Geopolitical Ambitions and Challenges

Military tensions are escalating because the Russian Federation has strengthened military forces in the Arctic by reopening bases and installing advanced weapon systems. NATO members are concerned about security because of these changes, which could lead to a new arms race in the Arctic. Resource war is happening because the Arctic holds around 13% of the world's undiscovered oil and 30% of the world's untapped natural gas. Competition over resource control is causing significant concern. Shipping routes have an important role in the security landscape because Arctic ice is melting and creating new sea lanes, such as the Northern Sea

Route. The Russian Federation's control over the sea lanes creates problems of dependency concerns and could create problems for international trade if the Russian Federation controlled those sea lanes. The Russian Federation has made a very expansive claim to territory in the Arctic, which, due to overlap with other countries such as Norway and Canada, could lead to legal disputes and, perhaps, even diplomatic battles. Environmental risks that may be introduced by the Russian Federation's engagement in the Arctic include oil spills, disruption to fragile habitats, and significant blowback to world environmental leaders because the Arctic environment represents a unique system of great vulnerability that could be adversely affected by any risks created such as these by the Russian Federation.

The Russian Federation is positioning itself in the Arctic and acting about global power by interfering with established power dynamics and possibly disrupting the balance of power that exists, often in joint alliances with other members of NATO and the United States. The unique nature and the way the Russian Federation is engaging the geography of the Arctic is likely to impact and disrupt what is already a vulnerable Indigenous community on the frontlines of climate change, which includes potential and anticipated disruption of fairness, livelihoods, and opportunities. The Arctic, a resource-rich stronghold, is becoming the next strategic landscape for jostling global powers. The rise of global powers such as the Russian Federation and China, and the presence of new actors such as Beijing, are strong indicators of the value of the Arctic as a place for global strategic competition. NATO has heightened its focus on the Arctic in response to Russia's increasing military presence. This could lead to the further militarization of the Arctic as NATO and its member states like Norway, Canada, and the U.S. increase their defensive capabilities in the region. Joint military exercises, the establishment of Arctic military units, and the potential deployment of more surveillance and defense systems could emerge as NATO counters Russian expansion.

The Arctic may provide a new front in the Cold War, raising the possibility of military incidents or confrontation. As Arctic waters become more strategically important, the United States could deploy more naval and air force power toward the region, risking friction among NATO allies, if there are divisions over how to respond or strategize regarding the Arctic. The Russian invitation to China for participation in extracting Arctic natural resources forms a strategic partnership with mutually reinforcing positions for both countries. China's "*Polar Silk Road*" initiative advances Russian objectives and provides China with access to increasingly important resources while shortening shipping routes. The Russia-China partnership in the Arctic creates an Eastern bloc that could challenge Western influence, resulting in a bifurcated Arctic direction, where the East controlled by China and Russia enjoys significant military and natural resource advantages while the West is trying to defend its interests. The role of China's partnership with Russia will hinder Western efforts to economically isolate Russia and reestablish trust, and sanctions could be partially circumvented if China. Russia already controls a substantial portion of Europe's energy now, and

enhanced Russian control of the Arctic means more leverage over European energy strategies because of the availability of new oil and gas reserves. An enhanced Russian presence could result in Europe's energy dependency becoming more pronounced, further complicating diplomatic relations and contributing to Europe's weakened ability to call out or act against Russian actions in furtive kitchens in Ukraine. Increased competition for energy in the Arctic region may exacerbate a European energy transition timeline and potentially lead to denser renewables as a countermeasure vis-a-vis Russian Arctic energy control. Additionally, some existing global environmental movements are already responding to Russia's expansion, and Russia has a history of oil spills and other environmental degradation in other parts of the world. The fragile ecosystems and Indigenous communities of the Arctic are already most affected by climate change. Therefore, a more aggressive economic prioritization of resources could lead to broader global activism in response to Arctic natural resource economic exploitation and increased diplomatic pressure.

Conclusion

The Arctic venture of the Russian Federation carries a lot of punch than primarily regional significance, President Vladimir Putin endeavors to extend The Russian Federation as a global superpower. The Russian Federation's exploitation of massive Arctic reserves in combination with a military push to assert dominance is not only a matter of managing resources- it is also about displaying military power and strategic intention. The reopening of military installations and the roll-out of high-tech armaments show the Russian Federation's aspiration to overshadow the important region, and in doing so provide itself with a strategic advantage over other countries. What the Russian Federation is doing has the capability of shifting power relations globally.

It is clear to me that Vladimir Putin's main priority is to recover the Russian Federation's former glory and secure a significant role in world affairs. In taking command of strategic Arctic Sea routes and territories with substantial resource reserves, the Russian Federation's schemes are, in a way, more about securing than economic benefits. The Russian Federation wants to, with the Arctic, expand its sphere of geopolitical influence. Based on my understanding, the Russian Federation's Arctic ambitions contribute to its broader objective of positioning the country as a premier global power state. With its actions in the Arctic, it is evident that President Putin intends to display that the era of the Russian Federation being a major global power is past and present.

"Russia in the Arctic—A Critical Examination," Eugene Rumer, Richard Sokolsky, and Paul Stronski, Carnegie Endowment for International Peace, 29 March 2021
[64] https://carnegieendowment.org/2021/03/29/russia-in-arctic-critical-examination-pub-84181

Summary:

Russia has big Arctic plans, but how they will be realized is uncertain. For the United States this will likely mean the return to a Cold War–like environment rather than a new chapter in great-power competition in the Arctic.

Russia's Arctic ambitions have attracted increasing attention in the West over the past decade as climate change opens up new opportunities in the region for navigation and exploration of its riches. For its part, Moscow casts a wary eye on what it sees as a challenge from the United States and the North Atlantic Treaty Organization (NATO) to its position and ambitions there. The Kremlin's rhetoric about Western encroachment has become more strident, in sync with its enhanced military posture and ambitious economic and infrastructure projects.

THE DRIVERS OF RUSSIA'S ARCTIC POLICY

Russian interest in the Arctic has deep historic roots that extend all the way to the sixteenth century and the conquest of Siberia driven by the never-ending quest for more resources and secure trading routes. Modern-day Russian posture in the Arctic is integral to its overall confrontation with the West, in which Europe is the principal theater. The saber-rattling in the Arctic and threatening rhetoric are driven by several factors: preparations for the unlikely, but potentially catastrophic contingency of war in Europe, the need to secure its second-strike nuclear capabilities (the bulk of which is based around the Kola Peninsula), and the quest for resources to pay for the proverbial guns and butter as the competition with the West shows no sign of abating. Great-power ambitions and the interests of powerful bureaucratic elites and business interests also play a role.

AMBITIONS VS. REALITY

It remains to be seen whether Russia will be successful in realizing these ambitions. Its nuclear and conventional naval forces in northwest Russia are increasingly vulnerable to NATO's long-range precision weapons. It is unclear whether the development of the Northern Sea Route (NSR) along Russia's northern coastline into a major shipping route between Europe and Asia and the associated commercial projects are feasible and sustainable in the face of high costs and logistical complexity of operating in difficult climatic conditions with limited infrastructure, increased commercial competition from other countries, uncertain demand for hydrocarbons as the world shifts to green technologies, and the possibility of additional Western sanctions. The Kremlin's posture in the Arctic is likely to continue as it enjoys backing from President Vladimir Putin and top military, government, and business actors. Its ability to achieve these broad ambitions for the region, however, is questionable at best.

IMPLICATIONS FOR THE UNITED STATES AND NATO

Russia's conception of its security requirements and NATO's mutual-defense and deterrence commitments on the other hand have resulted in a tense standoff along

the alliance's northern flank as their forces operate in close proximity. Tempting as it may be to view the Arctic through the prism of great-power competition—which undoubtedly would fit with Russia's quest for recognition as a great power—there is little to suggest that its military posture in the Arctic is a fundamentally new undertaking. Rather, it signals the return to a version of its Cold War–era posture centered around long-standing missions of protecting the sanctuaries of its ballistic missile submarine fleet and operations in the North Atlantic in the event of a war in Europe. Yet the Russian military is resuming these missions with fewer resources and facing a more formidable array of adversary capabilities than during the Cold War.

Russia has staked out ambitious territorial claims in the Arctic. Its rhetoric notwithstanding, it has thus far pursued them through legal means in compliance with the terms of the United Nations (UN) Convention on the Law of the Sea, which it has signed and ratified.

Russia's actions in the Arctic—its aggressive rhetoric and its far-reaching territorial claims—have done little to improve its diplomatic position there vis-à-vis other Arctic states and only antagonized them. Its only partner in its Arctic pursuits has been China, which claims that it is a "near-Arctic" state—a claim rejected by the United States and likely viewed with suspicion by other Arctic nations.

Considering the long-term nature of Russia's confrontation with the West, the return to the relatively benign geopolitical environment in the Arctic that existed there in the 1990s is unlikely. Moreover, the current situation is not due to a misunderstanding, but rather to a clash of the two parties' interests. That leaves two broad avenues for managing the standoff:

- Diplomacy: Although Russia may not prove receptive, the United States and NATO should seek areas of cooperation where there is a convergence of interests, as well as to devise rules of the road similar to those that existed during the Cold War to reduce tensions, avoid or manage crises, and mitigate the risks of conflict through an accident or miscalculation.
- Deterrence: The United States and NATO should continue to improve their defenses to discourage Russia from harassing their military and commercial aircraft and ships in and around the Arctic, and to ensure that the alliance maintains the capability to execute its wartime reinforcement plans for its northern and eastern flanks.

The alliance should continue to manage competition with Russia through a combination of resolve and restraint, improving and demonstrating its capabilities for defense and deterrence, but without overreacting to Russian muscle-flexing. Striking the right balance will be difficult and will require communicating to Russia clearly where the allies' interests, objectives, and redlines are. The allies have been there before.

Current & Relevant Information:

INTRODUCTION

During the first post–Cold War decade, Russia approached the Arctic as an area of low tensions, where cooperation with other powers in addressing common challenges was desirable and feasible.1 Gradually, however, as relations with the West deteriorated, and especially since its 2014 invasion of Ukraine, Russia has adopted a much more competitive, even confrontational, perspective on the Arctic. Instead of emphasizing the benefits of cooperative engagement, its leaders have articulated their view of the Arctic as a sphere of military and economic expansion, and an arena for their great-power ambitions.2 As a result of this changing attitude, Moscow has prioritized military superiority to counter what it claims is a growing U.S./NATO challenge to its interests there.

By any objective standard, U.S./NATO military deployments in the Arctic do not currently represent a threat to Russia's Northern Fleet or to its other military assets there. The region possesses an abundance of natural resources, especially oil and gas, but these are available elsewhere in Russia. Exploring and extracting them in the Arctic requires huge capital investments and modern technology that would stretch its capacity. Global warming is opening up new commercial opportunities for shipping and fishing, but there is scant infrastructure in the region to capitalize on these opportunities, and rectifying this deficiency will be costly.

Russia's evolving Arctic ambitions have engendered growing concerns among other Arctic nations, yet surprisingly little is known about the basis for these ambitions. This paper therefore addresses the following questions: What are the drivers of Russia's Arctic policy? How does it define its interests in the region and what tools does it employ to advance them? Who are the Russian stakeholders that would benefit from the exploitation of the region? What are the prospects for Russia realizing its ambitions? What are the implications of its actions and ambitions for U.S./NATO interests and policy?

CONCLUSION

In responding to Russia's ambitions in the Arctic, it is important for the United States and NATO to base their plans on a realistic assessment of its posture there, its drivers, and its capabilities. Tempting as it may be to view the Arctic through the prism of great-power competition—which undoubtedly would fit with Russia's quest for recognition as a great power—there is little to suggest that its military posture in the Arctic is a fundamentally new undertaking. Rather, it signals the return to a version of its Cold War–era posture centered around long-standing missions of protecting the sanctuaries of its ballistic missile submarine fleet and operations in the North Atlantic in the event of a war in Europe. The Russian military is resuming these missions with fewer resources and facing a more formidable array of adversary capabilities than during the Cold War.

Some hedging against a greater-than-anticipated Russian threat should be one element of the United States' and NATO's overall approach to the Arctic Region. But pursuing the goal of winning a great-power competition with Russia in this region is likely to be a distraction from other, more important U.S. pursuits. The alliance should act with prudence, realism, and restraint in protecting its core interests in the Arctic and carefully manage competition with Russia to avoid destabilizing consequences.

Even though their tense standoff is likely to continue, some cooperation between Russia and other Arctic nations, in practical areas that are largely depoliticized, is probably possible. These include climate change, search and rescue operations, and scientific research. Other opportunities for cooperation should be explored on issues of common concern, such as the safety of maritime shipping, environmental remediation, protection of fisheries, and incident management. In addition, it is essential for NATO allies to find potential diplomatic avenues for managing the standoff—that is, rules of the road to mitigate the risks of crises or incidents with the potential for escalation.74 No matter how unpromising they may seem, they should be explored. The allies have been here before.

"Property and government interests of Russia under globalization: The Arctic case," Nikolay D. Eletsky, Arctic and North, 2018 [65]
http://eletskiy.narod.ru/1/35.pdf

Abstract:

Modern processes of the global property and governance formation are contradictory combined with the preservation and reproduction of economic interactions within the framework of individual States, regions and inter-state relations. The actualization of these processes in the Arctic region is due to its transformation into a place of focus and the most acute manifestation of the new contradictions between globalization and nation — state interests. The author concluded that the implementation of the Russian Arctic strategy is complicated by the uncertainty of prospects and the variation of possible vectors of the new globalization. The article substantiates the need for drastic measures to strengthen the Russian position in the Arctic due to the current strengthening of regionalization and fragmentation of the world economy. The geo-economic and geopolitical configuration of international cooperation in the Arctic may change in the near future due to the transition from of a unipolar to a multipolar model of the world order and the growing threats of a new hybrid cold war. It's shown that the contradictions between the Arctic powers are complicated against the background of the desire of the non-Arctic countries to participate in the exploitation of the region's resources. The author reveals the issues related to the search of the optimal balance between the objective imperatives of globalization and the protection of nation — state and regional interests of Russia as the largest Arctic power.

Current & Relevant Information:

Introduction

At the present stage of development of the world civilization, one of the most acute contradictions is the contradiction between globalization and existence of nation-states. The depth and role of this contradiction, the varied and comprehensive nature of its influence on social relations in the modern world are due to the objective nature of the factors and patterns of globalization, and the need for state-organized forms of economic and political interactions. The objectivity of these phenomena and, at the same time, their heterogeneity, multidirectional, and (in some substantive and functional respects) opposites, give a rise to the issue of protecting nation-state interests in the context of expanding globalization, which by its nature not only genetically indifferent about these interests, but in many cases opposes them.

At the same time, the globalization of production forces and the reproduction process as a whole becomes a key. We observe an expanded reproduction of global value chains that constitute the material basis for deepening economic globalization. It is essential that the Russian economy is not only deeply integrated into global value chains, but also plays a prominent role in their reproduction, being, according to the ECB, among the six most significant participants in these processes and ahead of the integrative influence of the UK, France, Italy and all the BRICS countries except China. Since the production process that forms the global value chains takes place, as a rule, within the TNCs framework, it enhances their global role, contributes to the transformation of the largest TNCs into global corporations. The latter are now transformed into the main modern form of primary economic activity (more precisely – an integrative industrial, scientific, financial and commercial complex). At the same time, these processes increase the contradiction between the orientation of global corporations towards the unification of production and commercial due to functioning in the “world without borders”, on the one hand, and the national-state discreteness of the world economic system, on the other. In the current system of geo-economic and geopolitical relations, the Arctic turns into a region of localization of the most significant forms and mechanisms of the global contradiction.

Conclusion

The crisis of the modern globalism does not abolish the laws of globalization but contributes to a change of its forms. At the present stage of the development of transition to neo-globalization, regionalization of the world economy has intensified, in the form of globalization mainly. Glocalization is manifested in the strengthening of the local, incl. regional, interests and peculiarities, but reflects the dominant influence of globalization. In the Arctic region, globalization is manifested in the fact

that global governance there is exercised in interaction through structures, mechanisms and institutions of regional governance.

Also, we cannot ignore the uncertainty of the prospects and the variability of the development scenarios for neo-globalization, as well as the fact that the formation of global property and management is a long process that will take several centuries. This time is going to be used to search for the optimal relationship between the objective and the imperatives of globalization. Protection of nation-state interests will remain relevant. The complication of geo-economic and geopolitical problems and contradictions in the Arctic require their comprehensive scientific research. At present, we observe the crisis of the US-centered model of globalism and the transition from a unipolar to a multipolar system. New aspects of the protecting Russia's interests are identified, considering the trends of property globalization and management. Formation of multipolarity means overcoming the unipolar-hegemonic monopoly on the right to formulate, represent and protect universal goals and interests, and therefore act as the main subject of global governance and the "ultimate beneficiary" of the appropriation of world profits. In the connection to the transition to a multipolar world, the global importance and functional content of the modern sectoral division system in the Arctic water area and the special powers of coastal states is increasing. These states are designed to maximize the actions on "common human" interests in the international development of the Arctic's wealth and the efficient use of globally significant resources of the region, combined with their own interests through the development of resources in exclusive economic zones and offshore fields and observing the rules of international shipping. Considering the impossibility of ensuring full sovereignty over the Russian polar ownership with the understanding of their status before 1991, this system can be viewed as a palliative model of protecting the interests of our state in the Arctic region in the case of unconditional abandonment of the unilateral concessions, which in turn requires the all-round expansion of effective economic management in the region and the strengthening of its military defense potential due to the new hybrid Cold War. The palliative and transitional nature of the protecting Russian interests in the Arctic region is objectively determined by both the current problems of the Russian state and the contradictions of the global ownership and governance genesis.

"Changes in the Arctic: Background and Issues for Congress," Congressional Research Service, 1 October 2024 [66] https://sgp.fas.org/crs/misc/R41153.pdf

Summary:

The diminishment of Arctic sea ice has led to increased human activities in the Arctic, and has heightened interest in, and concerns about, the region's future. The United States, by virtue of Alaska, is an Arctic country and has substantial interests in the region. The seven other Arctic states are Russia, Canada, Iceland, Denmark (by virtue of Greenland), Norway, Sweden, and Finland. The Arctic Research and

Policy Act (ARPA) of 1984 (Title I of P.L. 98-373 of July 31, 1984) "provide[s] for a comprehensive national policy dealing with national research needs and objectives in the Arctic." The National Science Foundation (NSF) is the lead federal agency for implementing Arctic research policy. The Arctic Council, created in 1996, is the leading international forum for addressing issues relating to the Arctic. The United Nations Convention on the Law of the Sea (UNCLOS) sets forth a comprehensive regime of law and order in the world's oceans, including the Arctic Ocean. The United States is not a party to UNCLOS.

An array of climate changes in the Arctic is now documented by observing systems, with more expected with future greenhouse gas-driven climate change. Observed physical changes in the Arctic include warming ocean, soil, and air temperatures; melting permafrost; shifting vegetation and animal abundances; and altered characteristics of Arctic cyclones. A monitoring report of the Arctic Council concluded in 2019 that "the Arctic biophysical system is now clearly trending away from its previous state [in the 20th century] and into a period of unprecedented change, with implications not only within but also beyond the Arctic."

Following the end of the Cold War, the Arctic states sought to maintain the Arctic as a region of cooperation, low tension, peaceful resolution of disputes, and respect for international law. Over the past 10 to 15 years, the emergence of great power competition between the United States, Russia, and China has introduced elements of competition and tension into the Arctic's geopolitical environment. Russia's war in Ukraine beginning on February 24, 2022, has further affected the region's geopolitical environment by prompting the seven Arctic states other than Russia to suspend most forms of Arctic cooperation with Russia, by prompting Finland and Sweden to apply for NATO membership (they are now NATO members), and in other ways.

The Department of Defense (DOD) and the Coast Guard are devoting increased attention to the Arctic in their planning, budgeting, and operations. Whether DOD and the Coast Guard are taking sufficient actions for defending U.S. interests in the region is a topic of congressional oversight. The Coast Guard has two operational polar icebreakers and through FY2023 has received funding for procuring the first two of four or five planned new heavy polar icebreakers.

The diminishment of Arctic ice could lead in coming years to increased commercial shipping on two trans-Arctic sea routes—the Northern Sea Route close to Russia, and the Northwest Passage close to Alaska and through the Canadian archipelago—though the rate of increase in the use of these routes might not be as great as sometimes anticipated in press accounts. International guidelines for ships operating in Arctic waters have been updated.

Changes to the Arctic brought about by warming temperatures will likely allow more onshore and offshore exploration for oil, gas, and minerals. Warming that causes

permafrost to melt could pose challenges to onshore exploration activities. Increased vessel traffic (e.g., oil and gas exploration, cruise ships, expanded fishing activities) in the Arctic increase the risk of pollution in Arctic waters. Cleaning up oil spills in ice-covered waters will be more difficult than in other areas, primarily because effective strategies for cleaning up oil spills in ice-covered waters have yet to be developed. Changes in the Arctic could result in migration of fish stocks to new waters, and could affect protected species. The United States is working with other countries regarding the management of Arctic fish stocks.

Current & Relevant Information:

Geopolitical Environment

Overview

Following the end of the Cold War in the late 1980s and early 1990s, and particularly after the founding of the Arctic Council in 1996, the Arctic states sought to maintain the Arctic as a region of cooperation, low tension, peaceful resolution of disputes, and respect for international law—an approach sometimes referred to as the "Arctic spirit" or "High North, low tension." The Nordic countries in particular were committed to this approach.

Over the past 10 to 15 years, the emergence of great power competition (also called strategic competition) between the United States, Russia, and China has introduced elements of competition and tension into the Arctic's geopolitical environment. Russia's increased military presence and operations in the Arctic—and responding actions by other Arctic states—are one source of competition and tension. China's increased diplomatic and economic activities in the Arctic are another.

Some observers view the Arctic as having become an arena for geopolitical competition among the United States, Russia, and China, or argue that the diminishment of Arctic ice and potentially increased maritime access to the region's resources has prompted or could prompt a race for Arctic resources (or words to that effect) among Russia, China, the United States, and other countries. Other observers argue that competitive aspects of the region's geopolitical environment and the notion of a race for Arctic resources are sometimes overstated.

Impact of Russia's War in Ukraine

Russia's war in Ukraine beginning on February 24, 2022, has substantially affected the Arctic's geopolitical environment in a number of ways, including but not necessarily limited to the following, some of which have added to tensions in the region:

- **Operations of Arctic Council substantially affected.** Russia's war in Ukraine beginning on February 24, 2022, has substantially affected the operations of the Arctic Council, prompting new or heightened questions

about the future of the Arctic Council, Arctic governance, and cooperation in general among the eight Arctic states. Specific reported developments include the following:

- On March 3, 2022, in response to Russia's invasion, the seven Arctic states other than Russia—who are sometimes referred to as the Arctic 7 or A7— announced that they would be "temporarily pausing participation in all meetings of the [Arctic] Council and its subsidiary bodies."
- The Nordic Council of Ministers similarly stated that it was suspending its cooperation with Russia and Belarus, and Finland, Denmark, Iceland, Norway, Sweden, and the EU suspended activities involving Russia within the Barents Euro-Arctic Council (BEAC), which was established in 1993 for collaboration primarily between Russia, Norway, Finland, and Sweden to promote stability and sustainable development in the Barents region. In September 2023, Russia announced that it would withdraw from BEAC, citing what it said was a failure by Finland to confirm the transfer of the BEAC presidency from Finland to Russia as scheduled in October 2023.
- In October 2022, China's special envoy to the Arctic reportedly stated that China would not recognize the legitimacy of an Arctic Council that does not include Russia. He also reportedly stated that China would continue to cooperate in the Arctic with both the A7 states and Russia.
- On February 21, 2023, Russia published amendments to its Arctic policy statement that removed mentions of the Arctic Council.
- In May and June 2023, it was reported that while all cooperation with Russia would remain suspended, other activities of the Council and its working groups would resume in mid-June 2023.
- A June 2023 press report stated: "At the end of his tenure as chair of the Arctic Council's senior officials committee in May, Russia's Nikolai Korchunov said Moscow could withdraw from the organization if it was not invited to participate in events during the Norwegian presidency."
- A September 2023 press report stated that an August 29, 2023, meeting of all eight Arctic Council member states and the six Arctic Indigenous groups that are permanent participants had decided on guidelines for restarting the council's working groups.
- In early February 2024, Russia's ambassador-at-large for the Arctic reportedly stated that Russia would withdraw from the Arctic Council if the council's activities council "do not correspond to Russia's interests."
- On February 14, 2024, it was reported that Russia had suspended annual payments to the Arctic Council until "real work" resumes at the Council with the participation of all member states.

    - On February 28, 2024, the Arctic Council stated that “consensus was reached for the gradual resumption of official Working Group meetings in a virtual format, enabling project-level work to further advance. In February [2024], the eight Arctic States, in consultation with the Indigenous Permanent Participant organizations, reached consensus to gradually resume official Working Group meetings in a virtual format. Prior to this update, Working Groups advanced project work and decision-making only via written procedures after consensus was reached in August 2023.”
- **Concerns about Russia’s Arctic military activities heightened.** For the A7 states, Russia’s war in Ukraine has heightened concerns about the purpose behind Russia’s military modernization in the Arctic and reinforced cooperative security links among the seven countries. Russia reportedly has withdrawn military personnel and equipment from its Arctic bases to help provide reinforcements for its war in Ukraine, and some of these forces reportedly have been destroyed in combat operations there. Other press reports state that, while Russia’s arctic military forces have been degraded as a result of the war, Russia’s military modernization in the Arctic has nevertheless continued.
- **Finland and Sweden become members of NATO.** Russia’s war in Ukraine prompted Finland and Sweden to apply for NATO membership.
    - On April 4, 2023, Finland became a member of NATO, which converted Finland’s 833-mile border with Russia into a NATO-Russia frontier. More than 300 miles of this border (i.e., more than 36% of the border’s length) is north of the Arctic Circle. (By way of comparison, Norway’s border with Russia, all of which is above the Arctic Circle, is about 123 miles in length). Almost one-third of Finland’s territory is north of the Arctic Circle. In these ways, Finland becoming a member of NATO has increased the Arctic as an area of focus for NATO.
    - On March 7, 2024, Sweden became a member of NATO, which further increased the Arctic as an area of focus for NATO, given that about 15% of Sweden’s land area is north of the Arctic Circle.
    - Russia’s defense minister reportedly stated in December 2022 that in response to Finland and Sweden seeking to join NATO, Russia would reorganize some of its military forces near the Nordic countries.
- Increased Russian cooperation in Arctic with China. Russia’s diplomatic isolation from the A7 states in the Arctic has led to increased Russian cooperation with China (and other countries) in the Arctic—a development that could strengthen China’s presence and activities in the region and affect views among observers in the A7 states and elsewhere regarding China’s motivations and goals for its Arctic activities and China’s ability to work with the A7 states on matters relating to the Arctic.

- Arctic scientific research projects disrupted. Actions taken by governments in response to Russia's war in Ukraine substantially disrupted international scientific research projects in the Arctic that involved Russian participation.
- Russian Arctic oil and gas operations and exports impacted. Soon after the start of Russia's war in Ukraine, several major oil companies and investors announced that they were withdrawing from Russian resource development or not pursuing new projects with Russia, including in the Arctic. Western sanctions have reportedly impeded Russian energy projects in the Arctic. A July 2023 press report stated: "Major American providers of oilfield services supplied Russia with millions of dollars in equipment for months after its invasion of Ukraine, helping to sustain a critical part of its economy even as Western nations launched sanctions aimed at starving the Russian war effort." In September 2023, the United States announced further sanctions against Russia's Arctic energy activities amid reports that previous Western sanctions were having only limited impact. At the same time, exports of Russian oil to India and China reportedly have increased, with some of the exports to China using the Northern Sea Route (NSR), an Arctic sea route that runs along Russia's northern coastline.

October 2021 National Intelligence Estimate

A National Intelligence Estimate by the National Intelligence Council on climate change and international responses that are increasing challenges to U.S. national security that was released in October 2021 (i.e., a few months before the start of Russia's war in Ukraine) states the following about the Arctic (emphasis as in original):

> **Key Judgment 2: The increasing physical effects of climate change are likely to exacerbate cross-border geopolitical flashpoints as states take steps to secure their interests.** The reduction in sea ice already is amplifying strategic competition in the Arctic over access to its natural resources....
>
> **We assess that Arctic and non-Arctic states almost certainly will increase their competitive activities as the region becomes more accessible because of warming temperatures and reduced ice. Competition will be largely economic but the risk of miscalculation will increase modestly by 2040 as commercial and military activity grows and opportunities are more contested.**
>
> • Diminishing sea ice probably will increase access to shipping routes that can reduce trade times between Europe and Asia by about 40 percent for some vessels. In addition, onshore oil and natural gas deposits, as well as an estimated $1 trillion worth of precious metals and minerals will become more available, but some high-cost offshore oil and gas projects could become unprofitable if the energy transition speeds up.

• Warming ocean temperatures probably will push Bering Sea fish stocks northward into the Arctic Ocean, according to a NOAA study, which could increase commercial and illegal fishing activity in the region and exacerbate regional disputes between Arctic and non-Arctic states over fishing rights.

• Coastal erosion and thawing permafrost will damage critical infrastructure. Massive investment in infrastructure would be needed to maximize the economic potential of the region, ranging from new ports to mining, offering foreign powers an opportunity to gain a foothold by investing in new infrastructure and rebuilding and hardening existing infrastructure.

Military activity is likely to increase as Arctic and non-Arctic states seek to protect their investments, exploit new maritime routes, and gain strategic advantages over rivals.

The increased presence of China and other non-Arctic states very likely will amplify concerns among Arctic states as they perceive a challenge to their respective security and economic interests. China, France, India, Japan, South Korea, and the United Kingdom have released Arctic strategies mostly focused on economic opportunities, but some address security issues, which has prompted Russian policymakers to repeatedly state since 2018 that non-Arctic countries do not have a military role in the region.

Contested economic and military activities will increase the risk of miscalculation, and deescalating tensions is likely to require the adaptation of existing or creation of new forums to address bilateral or multilateral security concerns among Arctic states. Although the scope of the Arctic Council—the leading intergovernmental forum promoting cooperation among Arctic states—specifically excludes military security, Russia intends to broach security concerns with the other Arctic states while chairing the council from 2021 to 2023, according to Russian officials' public statements, and may propose alternate forums to discuss those issues....

Overt military action, especially by a non-Arctic state, that significantly escalates tension in the region and results in a sidelining of Arctic diplomacy would challenge our judgment that increased activity in the Arctic, while raising the possibility of miscalculation, is unlikely to result in outright conflict because of the harsh operating environment and existing mechanisms for cooperation. Persistent challenges to Russia's supremacy of the Northern Sea Route [NSR] by a non-Arctic state's military could result in armed conflict with Russia if diplomatic negotiations had stalled and foreign militaries continued to operate in what Moscow views as its territorial waters. Alternatively, if a non-Arctic state, especially China, were to begin regular, large-scale military operations in the area to protect an economic foothold in the region, the risk of conflict with Arctic states could increase and contribute to a buildup of forces.

Arctic Governance

Prior to Russia's war in Ukraine, great power competition and increased human activities in the Arctic resulting from the diminishment of Arctic ice put a spotlight on the issue of Arctic governance and the limits of the Arctic Council as a governing body. As noted earlier, Russia's war in Ukraine has prompted new or heightened questions about the future of the Arctic Council and Arctic governance.

Regarding the limits of the council as a governing body, the council states that it "does not and cannot implement or enforce its guidelines, assessments or recommendations. That responsibility belongs to each individual Arctic State. The Arctic Council's mandate, as articulated in the Ottawa Declaration, explicitly excludes military security." Arctic security issues currently can be addressed, to some degree at least, through other existing mechanisms, such as the Arctic Security Forces Roundtable (ASFR) and the Arctic Chiefs of Defense (ACHOD) Forum.

Prior to Russia's war in Ukraine, China raised questions as to whether the Arctic Council as currently constituted and the current broader legal framework for the Arctic should continue to be the principal means for addressing issues relating to the Arctic, and had begun to use other approaches for influencing Arctic governance.

Relative Priority of Arctic in U.S. Policymaking

In light of great power competition and increased human activities in the Arctic resulting from the diminishment of Arctic ice, some observers argue that there is a need to devote more U.S. attention and resources to the region. 118 On the other hand, great power competition is also being expressed in Europe, the Middle East, the Indo-Pacific, Africa, and Latin America. In a situation of finite U.S. policymaker attention and resources, the Arctic competes for attention and resources against these other regions. Some observers argue that the United States is not allocating sufficient attention or resources to defend and promote its interests in the Arctic. A September 2023 Government Accountability Office (GAO) report stated:

> Management roles for advancing U.S. Arctic priorities span the federal government…. While many federal entities engage with foreign partners on Arctic issues, the Department of State serves as the lead for Arctic diplomacy efforts….
>
> Stakeholders identified five factors that facilitated and five factors that hindered the federal government's management of U.S. Arctic priorities. For example, stakeholders identified U.S. Arctic expertise and engagement as factors that facilitated its influence in the Arctic Council. However, some stakeholders said that the Arctic Executive Steering Committee and the broader federal government face various challenges related to interagency coordination that hinder implementation of U.S. Arctic priorities outlined in the [October] 2022 [Arctic] strategy.

Stakeholders identified three factors pertaining to State's structures that facilitated and two factors that hindered State's management of U.S. Arctic priorities. For example, stakeholders identified continuity within the Senior Arctic Official position and supporting office as a factor that has deepened institutional knowledge for Arctic Council work, facilitating efforts to promote U.S. priorities. However, some stakeholders identified gaps in leadership and limited convening authority as factors that had hindered management. Many stakeholders viewed the announcement of the Ambassador-at-Large for the Arctic Region position positively but identified elements State and the new Ambassador should consider to manage U.S. Arctic priorities successfully going forward. These elements include consistency in position and title, a formalized office structure, clarity of Ambassador's role within the department, and greater authority to coordinate with all the relevant bureaus across the department.

Russia in the Arctic

Overview

In considering Russia's role in the Arctic's geopolitical environment, points that can be noted include but are not limited to the following:

• Geographically, Russia is the most prominent of the eight Arctic states. According to one assessment, Russia "has at least half of the Arctic in terms of area, coastline, population and probably mineral wealth." About 20% of Russia's land mass is north of the Arctic Circle, and Russia has numerous cities and towns there. As of 2019-2020, 80% of Russia's natural gas and 17% per cent of its oil production took place in its Arctic.

• Russia has identified the Arctic as a high-priority region critical to the country's prosperity and security. Starting in 2008, the Russian government has adopted a series of strategy documents outlining plans to bolster the country's Arctic military capabilities, strengthen territorial sovereignty, and develop the region's resources and infrastructure. Russia is keen to capitalize on natural resource development in the region, both onshore and offshore.

• Over the least 10 to 15 years, Russia has invested in the construction of Arctic ports and search-and-rescue facilities, some of which are referred to as dual-use (civilian-military) facilities. Russia also has reactivated and modernized Arctic military bases that fell into disuse with the end of the Cold War, assigned upgraded forces to those bases, and increased military exercises and training operations in the Arctic.

• Russia uses its coastal Arctic waters as a maritime highway for supporting its Arctic communities. As noted later in this report (see "Commercial Sea Transportation"), the Northern Sea Route (NSR) that runs along Russia's Arctic coast accounts for the vast majority of large cargo ship transits in the Arctic.

Russia is promoting the NSR for use by others seeking to transport goods between Europe and Asia. In July 2024 it was reported that Russia is seeking China's help in developing the NSR.

• In light of the above points, of all the Arctic states, Russia might have the most at stake in the Arctic in absolute terms.

Cooperation with Russia

Prior to Russia's war in Ukraine, the A7 states cooperated with Russia on a range of issues in the Arctic. One example is cooperation on Arctic search and rescue (SAR) under the May 2011 Arctic Council agreement on Arctic SAR that is discussed later in this report. The A7 states also cooperated with Russia through the Arctic Coast Guard Forum (ACGF), an organization intended to "foster safe, secure, and environmentally responsible maritime activity in the Arctic." The United States and Russia in 2018 cooperated in creating a scheme for managing two-way shipping traffic through the Bering Strait and Bering Sea, and in February 2021, the U.S. Coast Guard and Russia's Marine Rescue Service signed an agreement updating a 1989 bilateral joint contingency plan for responding to transboundary maritime pollution incidents. Prior to Russia's war in Ukraine, some observers saw possibilities for further cooperation by the A7 states with Russia in the Arctic. Since the start of Russia's war in Ukraine, those possibilities have narrowed considerably, but U.S.-Russian marine safety-related cooperation in the Bering Strait reportedly continued, and some observers see some limited possibilities for additional cooperation.

Tension and Competition

Prior to Russia's war in Ukraine, and as discussed later in this report, the increase in Russian military presence and operations in the Arctic had prompted growing concerns among the A7 states that the Arctic might become a region of military tension and competition, as well as concerns about whether the A7 states are adequately prepared militarily to defend their interests in the region. As discussed later in this report in the section on military operations, the A7 states have responded to Russia's increased military presence and operations in the Arctic by taking steps to increase their own Arctic military capabilities. Russian military exercises in the Arctic are being monitored by the A7 states, and, similar to what happened during the Cold War, Russian military aircraft that periodically fly toward the airspace (including Arctic airspace) of some of the A7 states are being intercepted by military aircraft from those states.

In February 2020, a disagreement arose between Norway and Russia regarding Russia's access to the Norwegian archipelago of Svalbard under the terms of the Svalbard Treaty of 1920. In June 2022, Russian legislators reportedly questioned Norway's sovereignty over Svalbard.

Russia's government considers certain parts of the NSR to be internal Russian waters and has asserted a right to regulate commercial shipping passing through these waters—a position that creates a source of tension with the U.S. government, which considers those waters to be international waters. The U.S.-Russian dispute over this issue could have implications not only for U.S.-Russian relations and the Arctic, but for other countries and other parts of the world as well, since international law is universal in its application, and a successful challenge to international waters in one part of the world can serve as a precedent for challenging it in other parts of the world.

A March 19, 2024, press report quoted the Chairman of the Russian Parliament Committee for the Development of the Far East and Arctic as stating, "The issue of the possible denunciation [by Russia] of the UN Convention on the Law of the Sea in the Arctic is under study," and "We will not continue to be part of it to our detriment." The article also stated: "The Kremlin-controlled Izvestia news website article also clarifies that the statements about the withdrawal are connected to Russia's concern about NATO ships and aviation "conducting intelligence" in, what the Izvestia calls, the "Russian sector of the Arctic, but formally they do not cross the 12-mile zone."

NATO and European Union in the Arctic

NATO

As mentioned earlier, the A7 states are all members of NATO, and the expansion of NATO to include Finland and Sweden following Russia's 2022 invasion of Ukraine has increased the Arctic as an area of focus for NATO.

During the Cold War (i.e., before Sweden and Finland joined NATO), U.S. and allied political and military officials viewed NATO member Norway and its adjacent sea areas as the northern flank of NATO's defensive line against potential aggression by the Soviet-led Warsaw Pact alliance. With the end of the Cold War, NATO planning efforts shifted away from defending against potential aggression by Russia against NATO countries, including NATO countries in the Arctic. With the emergence of great power competition, NATO began to once again focus more on the question of how to deter potential Russian aggression against NATO countries, including NATO countries in in the Arctic. Russia's war in Ukraine has strengthened NATO's focus on this question.

European Union

Three of the eight Arctic states—Denmark, Finland, and Sweden—are members of the European Union (EU), and two other Arctic states—Iceland and Norway—have close ties to the EU as members of the European Economic Area. The EU is showing increased interest in the Arctic. The European Parliament—the EU's only directly elected institution—supports an active EU role in the Arctic. In 2016, the European Commission (the EU's executive) and the EU's High Representative for

Foreign Affairs and Security Policy issued a joint communication (i.e., policy paper) on the EU's Arctic strategy. In 2017, the EU appointed its first Ambassador-at-Large for the Arctic, and in October 2019, the EU held its first-ever Arctic Forum, a high-level conference in northern Sweden focused on promoting EU efforts in the Arctic. The EU is also a major financial contributor to Arctic research.

3. Economic Activities:

"The Arctic as a resource base," Sergey Erzikov, Bellona, 26 March 2024 [67]
https://bellona.org/news/arctic/2024-03-the-arctic-as-a-resource-base

Overview:

What's wrong with Russia's official documents on the Arctic.

In recent years, Russia has been concerned with the development of its Arctic territories. However, it appears to be rather one-sided. The main focus is on the extraction and processing of natural resources, their export to the international market, and the development of the Northern Sea Route (NSR). Other directions of socio-economic development receive much less attention, and the environmental management of the region, particularly in the context of existing and planned economic activities, lags even further behind.

Legislation defining the concept of managing the Russian Arctic was mainly adopted before Russia's invasion of Ukraine. The international sanctions that followed have not yet affected this concept significantly, and has only adjusting certain indicators.

Current & Relevant Information:

What is the Russian Arctic and how is it managed?

The main documents establishing the legal regime and determining the strategy for managing Russia's Arctic territories include:

- Fundamentals of the State Policy of the Russian Federation in the Arctic for the Period up to 2035,
- Strategy for the Development of the Arctic Zone of the Russian Federation and Ensuring National Security for the Period up to 2035,
- Federal Law No. 193-FZ "On State Support for Entrepreneurship in the Arctic Zone of the Russian Federation",
- Development Plan for the Northern Sea Route for the Period up to 2035,
- Federal Project "Development of the Northern Sea Route".

The boundaries of the Arctic Zone of the Russian Federation (AZRF) are established by Law No. 193-FZ. They differ significantly from the commonly accepted boundaries of the Arctic, which are conventionally determined either by the Arctic

Circle or by the southern boundary of the tundra zone. Thus, the southernmost point of the AZRF (the south of the Turukhansky District of the Krasnoyarsk Territory) is approximately 800 km south of the Arctic Circle and 600 km south of the tundra zone boundary.

Since 2020, the AZRF has been regularly expanding with new territories. Soon, two more districts of the Khanty-Mansi Autonomous Okrug — Berezovsky and Beloyarsky — with areas of 88.1 and 41.6 thousand square kilometers, respectively, may be added to it. According to the text of the corresponding bill, this will create favorable conditions for the development and utilization of these municipal districts and the Arctic zone overall.

These favorable conditions are related to the fact that the same Law No. 193-FZ established a special economic zone in the AZRF — a territory with a special legal status distinct the rest of the Russian Federation, which implies various preferential conditions for attracting business.

The same law introduces the concept of “AZRF resident”. Only legal entities registered in the Arctic can be residents. Currently, there are 723 of them. Major corporations such as Gazprom and Novatek are not on this list, but their subsidiaries, such as Rosatom’s subsidiaries AO “Chukotatomenergo” and LLC “Arctic Atom-Service”, can be included.

Among the residents is one of the largest industrial companies operating in the Russian Arctic, LLC “Severnaya Zvezda”, the operator of the Syradasayskoye coal deposit in the Taymyr (Krasnoyarsk Territory). It is planned that from 2029, the deposit will provide a cargo flow of 12 million tons along the Northern Sea Route (NSR).

Residents of the Arctic zone are entitled to tax preferences, such as a zero profit tax for 10 years from the moment of receiving the first profit (except for production related to the extraction of solid minerals), zero land tax, and others. Tax incentives may vary from region to region. Among the administrative bonuses is the possibility of obtaining land plots without auctions, which are state or municipal property, subsidizing the construction of infrastructure, and even assistance in personnel recruitment and management.

Moreover, the law provides for the possibility of applying the procedure of a free customs zone (FCZ) on developed and equipped areas of residents, which implies exemption from customs duties and VAT for the export and import of goods.

However, the FCZ procedure can be applied to specific areas of transportation facilities, such as seaports, international airports, as well as land plots adjacent to automobile or railway checkpoints, which may also be accessible to non-residents.

In addition to other benefits in the Arctic zone, established for non-residents, it is worth mentioning federal tax incentives for all organizations engaged in the search,

evaluation, exploration, and extraction of hydrocarbon raw materials in certain territories of the Arctic zone and offshore deposits.

The law on the Arctic zone of the Russian Federation also includes two interesting points. The first is the possibility of conducting checks on residents, including compliance with environmental legislation, only with the consent of the Ministry for the Development of the Russian Far East and the Arctic (Minvostokrazvitiye) and within shortened deadlines. The second is that the managing company of the Arctic zone of the Russian Federation has the right to represent and defend the interests of applying residents in court, which increases their chances of success.

At the same time, the managing company for all residents is the Far East and Arctic Development Corporation (KRDV). It operates in both territories of advanced development (referred to as TOR in its Russian abbreviation), belonging to the Far Eastern Federal District (FEFD), and in the Arctic zone of the Russian Federation. Both the Far Eastern TORs and the Arctic zone of the Russian Federation are under the control of Minvostokrazvitiye, and the chairman of the board of directors of KRDV is concurrently the head of Minvostokrazvitiye, Alexey Chekunkov. Thus, the activities of Arctic business are essentially protected by the state.

In the Arctic zone of the Russian Federation, there are also territories that have been separated from it into separate jurisdictions. For example, there are their own TORs here. These include the TOR “Arctic Capital” (Murmansk Region) specializing in port activities, logistics, industrial construction, and the TOR “Chukotka” (Chukotka Autonomous Okrug) specializing in “extraction of minerals and services to the population.” These TORs also have legislative incentives — in each individual case, they are different, and they also differ from the conditions in the rest of the Arctic zone of the Russian Federation.

But that’s not all. In the urban district of Pevek (Chukotka), the so-called Free Port of Vladivostok (FPV) regime is in effect, which also implies preferential tax, administrative, and customs regulation regimes, including the possibility of applying the FCZ procedure. In the urban district of Pevek, there is one of the most significant ports on the Northern Sea Route and large gold mining enterprises.

Thus, there are separate “autonomies” in the Russian Arctic living by their own rules.

The Arctic zone of the Russian Federation (AZRF) is the largest special economic zone in the world and, in turn, is also an “autonomy” with its own legal regime in relation to the rest of the country’s territory. The land area of the AZRF is approximately 5 million square kilometers. For comparison, the area of Russia is 17 million square kilometers (excluding Crimea and other occupied territories of Ukraine).

However, the development of the Arctic is not singled out as a separate direction but is controlled by the same structure that deals with the development of the Russian

Far East (RFE) and manages all such “autonomies” both in the Arctic and in the RFE, despite their very serious environmental, climatic, socio-economic, and other differences.

Why all this is necessary?

Let’s turn to another important document that determines the fate of Russia’s Arctic territories. This is the presidential decree “On the Basics of the State Policy of the Russian Federation in the Arctic until 2035.”

The document begins with a list of six main national interests of Russia in the Arctic. Among them are sovereignty and territorial integrity; peace and partnership; the well-being of the population; environmental protection, including the interests of indigenous peoples.

Another point is dedicated to the economic aspect of the region’s development. However, here the focus is solely on the extraction of minerals. Thus, one of the national interests is understood as the development of the AZRF “as a strategic resource base and its rational use to accelerate the economic growth of the Russian Federation.”

The next point in the list is “the development of the Northern Sea Route (NSR) as a competitive national transport route on the world market.”

The strategy for the development of the NSR, as well as the target indicators for its use, are detailed in other state documents. The first is the Federal Project “Development of the Northern Sea Route.” The main task is to increase cargo traffic along the NSR to 80 million tons by 2024 and to 150 million tons by 2030.

The second is the Plan for the Development of the Northern Sea Route until 2035, approved by the government of the Russian Federation on August 22, 2022, and subsequently supplemented on April 28, 2023. It implies an even greater increase in cargo traffic compared to the federal project – up to 90 million tons by 2024 and up to 216.45 million tons by 2030.

The plan also includes a forecast for annual loading, according to which the bulk of the cargo flow along the NSR (approximately 70-75% depending on the year) should consist of oil, liquefied natural gas (LNG), non-ferrous metals, and coal produced in the AZRF by Gazprom, Rosneft, Novatek, Norilsk Nickel, LLC “Severnaya Zvezda,” and LLC “Baims Mining Company.”

The full implementation of these plans is in question, particularly due to sanctions. For example, the cargo traffic along the NSR in 2023, while breaking a historical record, reaching 36.25 million tons, still fell significantly short of the target indicator of the NSR Development Plan of 46.82 million tons.

Nevertheless, it is evident that a large portion of the cargo turnover along the NSR will eventually consist of minerals extracted in the AZRF. It is safe to say that two out of the six main interests of Russia in the Arctic, according to the Foundations of the State Policy in the region, are their extraction and transportation to markets.

Moreover, among the main threats to national security listed in the document is the "low pace of geological exploration of promising mineral resource centers in the Arctic zone of the Russian Federation."

The theme of resource development in the Arctic is widely reflected in the Strategy for the Development of the Arctic Zone of the Russian Federation and Ensuring National Security until 2035, approved by the decree of the President of the Russian Federation.

Among other things, here, in seven points, the significance of the AZRF in the socio-economic development of the country and ensuring its national security is substantiated. Three points are devoted to the presence of useful minerals here, and a fourth — to the economic importance of the NSR.

Thus, the significance of the AZRF is justified by the fact that it contains 17% of all Russian oil (including gas condensate), and the continental shelf of the Russian Federation in the Arctic contains another 17.3 billion tons of oil (including gas condensate) and over 85.1 trillion cubic meters of natural gas, as well as the fact that the implementation of major economic projects in the AZRF (which again involves the extraction and export of raw materials) stimulates the production in Russia of high-tech and knowledge-intensive products and demand for them.

Foreign Participation

Russia currently seems to lack sufficient resources of its own to fulfill existing plans for the development of the Arctic, so foreign capital is actively involved in their implementation.

According to Law No. 2395-1 "On Subsoil," only legal entities registered in the Russian Federation can use subsoil resources. However, nothing prevents foreign companies from being owners of these legal entities either partially or fully.

Such examples exist among the largest Russian mega-projects in the Arctic.

For instance, LLC "GDK Baimskaya," developing the Baimskoye gold-copper deposit in Chukotka, is 100% owned by the Kazakhstani company Trianon Limited. Novatek's "Yamal LNG" project is owned 49.9% by companies from China and France, and 40% of the shares of another project, "Arctic LNG 2," are held by companies from France, China, and Japan. Indian companies have owned 49% of OJSC "Vankorneft," the operator of the Vankor field in the Krasnoyarsk Territory, since 2016.

Moreover, Vietnam's participation in the development of the North-Purovsky gas condensate field in the Yamalo-Nenets Autonomous Okrug (YNAO) and the possibility of Thailand's participation in projects for hydrocarbon extraction in the Arctic zone of the Russian Federation, including LNG, are being discussed.

An exception is made for the Russian Continental Shelf. Only Russian companies can operate there, with state participation exceeding 50%. Moreover, since 2016, there has been a moratorium on issuing new licenses for shelf development, and currently, only Gazprom and Rosneft operate there under previously issued licenses. Moreover, extraction is carried out only at one deposit — the Prirazlomnoye field.

Regarding transportation via the NSR of resources extracted in Russia, including in the Arctic zone of the Russian Federation, using vessels under a foreign flag, this is also possible according to the Merchant Shipping Code. There are separate restrictions on the transportation of oil and gas; however, they do not apply to legal relations arising from international treaties concluded by Russia or any agreements concluded before February 1, 2018. An example of such cooperation are the 26 tankers chartered by Novatek, which are allowed to transport LNG and gas condensate via the Northern Sea Route under a foreign flag until 2044.

Environmental Policy in the Arctic

Thus, it is evident that in the Arctic zone of the Russian Federation (AZRF), there is active and planned new extraction and export of minerals. However, insufficient attention is currently paid to the environmental side of this process and to the overall fight against the environmental risks associated with economic activities in the region.

One of the main such risks is the thawing of permafrost. According to the Russian Ministry of Natural Resources, due to this process, 40% of the northern infrastructure in the country is already deformed. The potential economic damage to Russia could reach at least 5 trillion rubles (51.1 billion euros) by 2050, as stated by Deputy Minister of Ecology of the Russian Federation Sergey Anoprienko.

Therefore, in the updated edition of the "Foundations of State Policy of Russia in the Arctic until 2035," issued on February 21, 2023, a point appeared on the creation of a state system for monitoring the condition of permafrost. And in the list of main threats to national security in the region provided in this document, there is mention of the unpreparedness of the environmental monitoring system located in the AZRF for environmental challenges.

The monitoring system began to be created in the first half of last year. On May 19, 2023, the first well for observing the condition of permafrost was opened in Salekhard. By the end of the year, there were 20 of them operating in five regions. By 2025, their number should increase to 140. Also, in December 2023, the first two

stations for monitoring the concentration of greenhouse gases were put into operation.

However, it is quite telling that the main Arctic documents usually focus not on combating climate change but on adapting to it. This can be explained by the fact that Russia still considers climate change not only as a threat but also as a stimulus for economic development. For example, in the Strategy for the Development of the AZRF, it is stated that climate change contributes not only to “risks for economic activities and the environment” but also to “new economic opportunities,” one of which is cited as increasing cargo traffic along the NSR.

Also noteworthy is that, on the one hand, Russia considers climate change in the region as one of the threats to national security, while on the other hand, it enshrines in various regulatory legal acts a multiple increase in the extraction and export of hydrocarbons, the burning of which precisely contributes to global climate change and the rise in temperatures in the Arctic. However, unlike the ongoing development of oil and gas fields in the region, climate measures are only at the initial stage of implementation.

Furthermore, Russia is not yet ready to join the ban on the transportation and use of heavy fuel oil in the Arctic — a voluntary initiative developed by the International Maritime Organization of the UN. The ban will begin to take effect with some exceptions on July 1, 2024, and will come into full force in 2029. This measure will reduce black carbon emissions from shipping by 44%, emphasize the “Clean Arctic” alliance, which includes “Bellona”.

Among other steps to reduce emissions in economic activities in the Arctic zone of the Russian Federation (AZRF), a set of 13 measures adopted on October 29, 2022, by government directive No. 3219-r is illustrative.

These measures include reducing the use of coal and heavy fuel oil as fuel, modernizing boiler houses and thermal power plants to switch them to natural gas, biofuels, or wood pellets and chips, measures to eliminate open storage of coal. It is also planned to work on improving the quality of treatment of domestic sewage in settlements and wastewater from ships calling at Arctic ports.

In addition, according to the document, plans are being developed to stimulate the transition of automotive, maritime, and inland water transport to natural gas fuel and to develop proposals to increase charges for emissions and discharges of pollutants into the atmosphere and into the seas and rivers. However, as seen, these points are currently only about developing plans and proposals, not about concrete steps.

At the same time, in some cases, individual effective measures are being taken to reduce the negative impact on the environment. For example, in 2021, the energy system of Vorkuta was converted from coal to gas, sharply reducing emissions into the atmosphere.

Despite this, in the following year, 2022, the Vorkuta urban district took the 8th place in the list of Russian cities with the most polluted air, with total emissions of 168 thousand tons, because many environmental problems related to coal mining, decommissioning of closed mines, and the liquidation of accumulated environmental damage have not been addressed for 20, 30, or more years.

Another example is the reduction of emissions by the Norilsk branch on the Kola Peninsula. Emissions here were also sharply reduced, but primarily because outdated production facilities were closed and transferred to the Zapolyarny branch of the company, also located in the AZRF — in Norilsk.

Norilsk itself, along with another 11 cities across the country, is part of the federal project "Clean Air," launched in 2019. However, as of the end of 2022, emissions from the largest polluter — Norilsk Nickel — were only reduced from 1.8 billion tons to 1.78 billion tons (for comparison, all emissions into the atmosphere of the Norilsk urban district this year amounted to 1.79 billion tons).

Summary

As a result of such environmental policy, emissions into the atmosphere from just the Arctic sites of Gazprom and Norilsk Nickel exceed those of the entire industry of Alaska and the Arctic zone of Canada combined. According to Greenpeace, the Zapolyarny branch of Norilsk Nickel is the world's largest anthropogenic source of sulfur dioxide pollution in the atmosphere, and areas of historically strong pollution and disruption of the natural environment (in many cases, dating back to the Soviet era) are scattered throughout the European part of the Russian Arctic zone (due to its greater development), but also occur in its Asian part.

However, in Russian state documents on Arctic management, environmental protection measures are relegated to the background compared to industrial development of the region, are fragmented, incomplete, and often do not extend beyond the development of plans, while concrete steps supported by target indicators are needed now.

The foundations of state policy, the development strategy of the region, and many other important documents defining the fate of the Russian Arctic are adopted until 2035, and major changes are unlikely to be expected. This means that, barring economic obstacles, such as a significant strengthening of international sanctions, serious anthropogenic pressure is planned for at least the next 10 years, which will increase environmental risks for the entire Arctic, not just its Russian part.

"Russia's Arctic economy is heading for decline," Evgeny Gontmakher, Geopolitical Intelligence Services, 21 October 2022 [68]
https://www.gisreportsonline.com/r/russia-arctic-economy/

Overview:

Although oil and gas reserves are massive in Russia's vast Arctic zone, the unsanctioned Nornickel, a top global producer of nonferrous metals, is the only bright economic spot.

- Western sanctions are starting to cut oil and gas revenues
- Investment has dried up, making production goals unrealistic
- Trade partners are likely to bypass the Northern Sea Route

Current & Relevant Information:

By geographical good fortune, Russia is a great Arctic power. The length of its coast along the Arctic Ocean is 22,600 kilometers, almost 60 percent of the world's Arctic coast. The entire Arctic zone is four million square kilometers and sparsely populated because of the severity of the climate. The three largest Arctic cities are in Russia: Murmansk (325,000 inhabitants), Norilsk (205,000 inhabitants) and Vorkuta (85,000 inhabitants). The fourth-largest city is the Norwegian city of Tromso (62,000 inhabitants). Overall, only 2.4 million people live in the Russian Arctic, of which 300,000 belong to 47 indigenous ethnic groups. The rest are migrants and their descendants from more southern regions of Russia and the former Soviet Union.

Two decades of slave labor

In the 1930s, people arrived in the Arctic territories to develop large deposits of discovered nickel, copper and gold. The Soviets decided to use the Northern Sea Route as the shortest shipping lane from the northern European part of the Soviet Union to the Far East, connecting the Atlantic and Pacific oceans when navigable in the summer and autumn.

The massive use of labor from the gulags began in these areas. For example, the construction of the Norilsk Mining and Metallurgical Combine – now known as Nornickel – was provided by hundreds of thousands of prisoners, many of whom died from diseases, malnutrition and the harsh climate. Prisoners who mined gold in the Kolyma River area suffered some of the worst conditions.

After Soviet dictator Joseph Stalin's death in 1953, the gulags were liquidated. The development of the Arctic was carried out with a voluntary workforce enticed by higher salaries and the opportunity to retire early. These incentives are still being used today to attract workers to the Arctic.

Vast oil and gas deposits

The next stage of Arctic exploration began after the discovery of large oil and gas fields there, which formed the basis of Soviet and Russian exports. Although less than 2 percent of Russia's 145 million people live in the Arctic zone, the region provides almost 10 percent of the country's economic output. In 2020, 80 percent of Russian combustible natural gas (including gas liquids) and 17 percent of its oil were produced there.

The continental shelf contains more than 85.1 trillion cubic meters of natural gas and 17.3 billion tons of oil. The Strategy for the Development of the Arctic Zone of the Russian Federation and Ensuring National Security until 2035, approved by President Vladimir Putin in 2020, declares these resources to be a “strategic reserve for the development of the mineral resource base of the Russian Federation.”

Lacking investment

The development of the Northern Sea Route is an essential part of the Arctic economy’s success. For this purpose, the Russian government plans to invest $29 billion and take these steps:

- Development of the infrastructure of seaports and shipping lanes in the waters of the northern seas – from the Barents to the Chukchi
- Creation of a naval operations headquarters on the entire water area of the Northern Sea Route
- Integration of transport and logistics services provided in the waters of the Northern Sea Route, based on a digital platform designed for paperless registration of multimodal transportation of passengers and cargo
- Construction of at least eight nuclear icebreakers for year-round navigation

Significant investments were also expected in the development of the economy of the Arctic zone and, above all, the development of the extractive industry there.

However, even before 2022, achieving these goals was doubtful. This was due to two main factors. First, in the 2010s, there was a shortage of investment in the oil and gas sector. That was due to the long-term deterioration of the investment climate, including the first package of Western sanctions imposed on Russia in 2014 after the annexation of Crimea. Second, the emerging green transition of developed economies will cut the demand for nonrenewable energy sources by 2030.

The sanctions imposed on Russia after its February 2022 invasion of Ukraine have further complicated the prospects for Russian Arctic development. The gradual embargo on oil and gas purchases from Russia is taking hold. Moreover, potential trade partners will likely reject the use of the Northern Sea Route for international transit of goods. This likelihood will sharply limit the demand for goods and services that the Russian Arctic can produce.

That is especially true for natural gas, whose production and transportation for export have already begun to decline. In the first half of 2022, Russia reduced natural gas production by nearly 7 percent compared to the same period in 2021. In June, Russia produced just over 39 billion cubic meters of gas – 23 percent less than in the same month a year ago.

Oil production has also begun to fall, and the European oil embargo starting in December will only strengthen this trend. Output in August decreased for the first time since April – by 170,000 barrels per day, to just under 11 million barrels per

day. In August, revenues from Russian oil exports fell by $1.2 billion (to $17.7 billion). That took place despite an increase in exports by 220,000 barrels per day, up to 7.6 million barrels per day.

“Russia lacks the financial resources to improve living standards in the Arctic: A case of the Sakha Republic,” Kazuho Yokogawa, Polar Science, September 2024 [69] https://www.sciencedirect.com/science/article/pii/S1873965224000082

Abstract:

This paper focuses on the Sakha Republic in the Russian Far East as one of the Arctic regions. Russia's Arctic policy gives priority to improving the living standard and quality of life of Arctic inhabitants. I examine the feasibility of Russia's Arctic policy in the context of economic and social situation in the Sakha Republic and fiscal capacity of local governments, which are responsible for the provision of social public services. The Arctic region is an important ‘donor’ for the Russian economy, which can bring abundant tax revenues to the state budget. However, it has not been considered enough if this wealth contributes to the sustainable development of Arctic societies. This paper provides an overview of Russia's Arctic policy, followed by an analysis of the socio-economic situation in the Sakha Republic after the collapse of the USSR. Then, local public service provision and its finance is analyzed based on the fiscal statistics of the Republic. I conclude that local governments face difficulties in enhancing their public services due to a lack of financial resources and absence of decision-making autonomy, because of centralization in the past decades.

Current & Relevant Information:

1. Introduction

The Arctic region is an important natural resource base for Russia, such as for natural gas and oil, and wealth derived from resource production is distributed throughout the country via the state budget to support Russian society. Therefore, the Arctic is positioned as a “donor” region in Russia, one where tax payments to the federal treasury exceed receipts from it. However, whether this wealth contributes to the livelihoods of the local population in terms of the sustainable development of Arctic societies has not been sufficiently analyzed.

This article focuses on the provision of public services and their financing, which concerns the lives of the Arctic population, based on a case study of the Sakha Republic in Far East Russia. It attempts to clarify the level of public services provided at the regional and local levels, as well as the financial capacities of these governments. Russia's Arctic policy emphasizes the importance of improving living standards for Arctic residents as one of its primary goals, and the level and quality of public social services relate to the living conditions of the local people.

In the following section, an overview is provided of Russia's Arctic policy and the economic and social situation in the Sakha Republic after the collapse of the Soviet Union. Next, the level of public services in the republic and the fiscal problems of the municipalities are discussed.

2. Overview of Russia's Arctic policy

In the 1990s, following the collapse of the Soviet Union, the Russian government's interest in the Arctic declined and the region was perceived as a national burden due to its high maintenance costs. However, as international interest in the Arctic increased in the 2000s, the Russian government began paying more attention to it. The first policy document on Arctic development was adopted in 2008, and subsequent programs have drawn a development plan for the period up to 2035.

Fondahl identified priority areas of focus for Russia's Arctic policy: (1) securing resource interests in the Arctic, (2) developing the Northern Sea Routes as an international transport corridor, (3) establishing the Arctic as an area of international cooperation and peace, (4) protecting the Arctic environment, and (5) protecting the rights of indigenous minorities of the North. From 2008 to the present, the Russian government has increasingly seen the Arctic as a natural resource base, able to strengthen Russia's position as a “great power”. The Russian government seems to prioritize accelerating the economic development of the region and increasing its contribution to the national economy, whereas the goals of protecting the Arctic environment, safeguarding the rights of indigenous peoples, and international peaceful cooperation over Arctic-related issues seem to have been downplayed. However, Russia's invasion of Ukraine in 2022 completely changed the situation. Many Western countries have stopped importing resources and their companies have also withdrawn from Russia. It has now become impossible for Russia to acquire the Western technologies and investments essential for Arctic resource development. Therefore, the feasibility of the Russian Arctic policy is in question.

Along with the need for Arctic economic development, policy documents recognize poor quality of life in the region as a problem, including severe depopulation, short life expectancies, deteriorating housing conditions, and difficulties in accessing social services, such as quality education and medical care. In fact, Russia's Arctic policy until 2035, adopted in 2020, emphasized quality of life improvements for the region's inhabitants as a major objective to be tackled. It set ambitious numerical targets, such as raising life expectancies from 72 in 2018 to 82 by 2035; transforming population outflows into positive inflows; creating 200,000 jobs at new enterprises by 2035; increasing average wages from 83,500 rubles in 2019 to 212,100 rubles by 2035; and others. The Sakha Republic's government has also, in its own Arctic policy documents, emphasized improving standards and quality of life for the region's inhabitants, along with other policy goals.

Thus, quality of life improvements for the Arctic population (including indigenous minorities) is a priority at both federal and regional levels. Arctic resource development is vital for the domestic economy and, therefore, maintaining the region's population levels and improving their quality of life is regarded as essential. Improving living standards requires various approaches, including improving access to social services, such as education, healthcare, and culture; improving housing and communal infrastructures; as well as creating employment opportunities and supporting indigenous peoples' livelihoods.

3. Economic and social situation in the post-USSR Sakha Republic

The Russian Arctic region experienced significant depopulation after the Soviet Union's collapse. This was due to a large influx of Slavic Russians to the region during and after World War II, leading to industrialization and exploitation of Arctic oil and gas. After the collapse of the USSR, however, there was a massive population outflow from the Arctic to other regions.

The Sakha Republic was no exception. The population declined from 1.11 million in 1990 to approximately 950,000 in 2000 (Fig. 1). Analysis of the population change in the 35 districts (*ulus*) and cities shows the population declined in most of them between 1990 and 2019 (Fig. 2(a)). Seven of these districts lost over half of their Soviet-era populations (a). A more detailed breakdown of the periods from 1990 to 2000 and 2000–2019 is shown in Fig. 2(b) and (c). In the 1990s, the population declined throughout the Sakha Republic except in the capital city of Yakutsk and its surrounding districts, which was seemingly due to the large population outflow from Sakha to other regions. After 2000, when Sakha's total population stopped declining, all except six districts still showed declining populations. This is explained by the fact that the population continued to move from remote districts toward more urbanized areas within Sakha. The government encouraged this movement by providing housing subsidies to those who migrated out of more remote Arctic areas. During the Soviet era, the government had established settlements in remote Arctic mining regions, creating towns and villages in which workers and their families lived. However, after the USSR's collapse, this settlement formula was replaced by the fly in/fly out method.

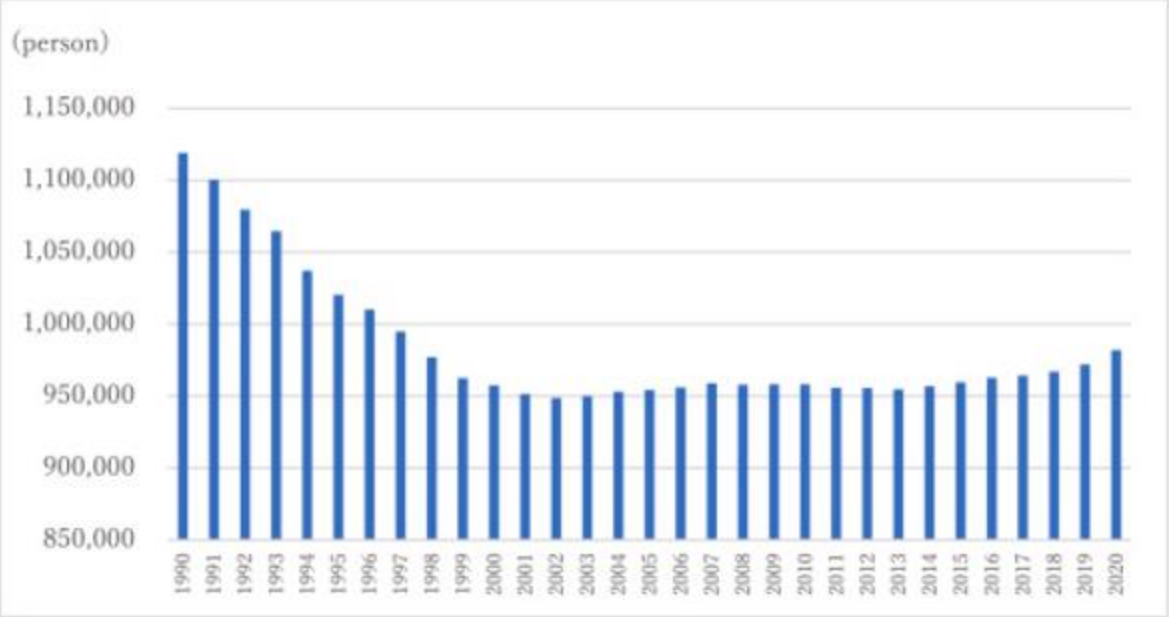


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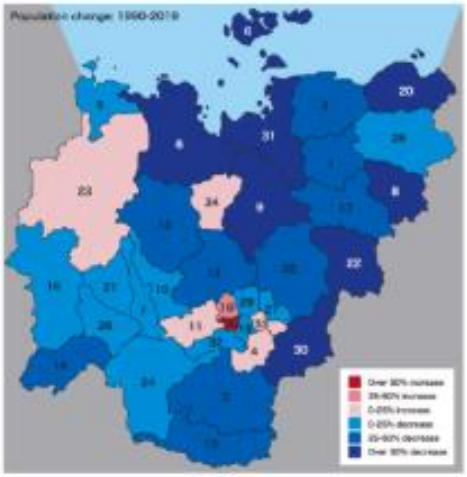
Fig. 1. Population in the Sakha Republic.
Source: Russian Statistical Agency.

Fig. 1. Population in the Sakha Republic.
Source: Russian Statistical Agency.

(a)1990-2019



(b)1990-2000

(c) 2000-2019

1. Abyysky District	13. Kobyaysky District	25. Srednekolymsky District
2. Aldansky District	14. Lensky District	26. Suntarsky District
3. Allaikhovsky District	15. MeginoKangalassky District	27. Tattinsky District
4. Amginsky District	16. Mirninsky District	28. Tomponsky District
5. Anabarsky District	17. Momsky District	29. UstAldansky District
6. Bulunsky District	18. Namsky District	30. UstMaysky District
7. Verkhnevilyuysky District	19. Neryungrinsky District	31. Ustyansky District
8. Verkhnekolymsky District	20. Nizhnekolymsky District	32. Khangalassky District
9. Verkhoyansky District	21. Nyurbinsky District	33. Churapchinsky District
10. Vilyuysky District	22. Oymyakonsky District	34. EvenoBytantaysky National District
11. Gorny District	23. Olenyoksky District	35. City of Yakutsk
12. Zhigansky District	24. Olekminski District	

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Fig. 2. Population change in the Sakha Republic: (a)1990–2019, (b)1990–2000 (c) 2000–2019.
Source: Statistical Agency of the Sakha Republic.

As a result of these movements, Yakutsk's population increased by 1.5-fold in the 21st century, currently representing 36 % of Sakha's total population. Thus, the Sakha Republic's population is concentrated in and around Yakutsk, with only approximately 10 % of the population living in the 13 Arctic districts. People, especially younger generations, are migrating away from the North due to harsh climatic conditions, difficulties in procuring goods, high living costs, difficulties in accessing quality social services, such as education and healthcare, and limited entertainment and cultural options.

Next, let us review the Sakha Republic's industrial and employment profiles. According to Pulyaevskaya, the Sakha Republic's regions can be divided into three groups according to their industrial profile (Table 1). The first group includes the capital city of Yakutsk and the region's main mineral extraction areas, accounting for over 80 % of the Sakha Republic's GRP. The second group includes several districts whose economies depend on resource extraction at a smaller scale than the first group, as well as the provision of transportation and communication services. These constituted 8 % of the republic's GRP. The remaining 23 districts form the third group, which has no major industries. Thus, the Sakha Republic's regional economy is asymmetrically structured, with a developed capital city and some mineral exploration areas on the one hand and large, sparsely populated areas without notable industrial activity on the other.

Table 1. Classification of the Sakha Republic's districts by their industrial structures.

	Major industry	Additional industry	Others
The Sakha Republic, total (100% of GRP)	Mineral resource extraction (51.5%)	Construction (8.2%); Transportation and communication (8.1%); Commerce (6.7%)	Electricity, gas, and heating (4.5%); Real estate (3.4%); Agriculture and forestry (1.7%)
Group 1 (82.6% of GRP) City of Yakutsk, Mirninsky, Lensky, Neryungrinsky, Aldansky, Nyurbinsky Districts	Mineral resource extraction (57.0%)	Construction (8.4%); Transportation and communication (7.8%); Commerce (6.7%)	Real estate (3.6%); Electricity, gas, and heating (3.6%); Manufacturing (1.0%); Agriculture and forestry (0.7%)
Group 2 (8.1% of GRP) Oymyakonsky, Olekminski, Anabarsky, Khangalassky, Vilyuysky, Megino-Kangalassky Districts	Mineral resource extraction (43.8%); Transportation and communication (8.9%)	Construction (7.6%); Commerce (5.7%); Agriculture and forestry (5.1%)	Electricity, gas, and heating (4.1%); Manufacturing (1.9%); Real estate (1.6%)
Group 3 (9.3% of GRP) Remaining 23 districts	–	Transportation and communication (10.0%); Mineral resource extraction (9.3%); Agriculture and forestry (7.6%); Commerce (7.2%)	Electricity, gas, and heating (13.1%); Construction (6.5%); Real estate (2.8%)

Note: Data are for 2016.

Source: Table format and classification of districts follow Pulyaevskaya (2012) p.164, while the data are updated based on the Sakha Republic Statistical Agency.

Table 2 shows the employment profile by industry in the Sakha Republic. Employment in the tertiary sector accounts for 82.5%, with even higher shares in Yakutsk, the Arctic districts, and the agricultural regions. The secondary sector is negligible, accounting for only 4%, which can be explained by the underdeveloped manufacturing sector. Considerable geographical distances from large markets and high electricity and transportation costs in the Sakha Republic hamper the development of local manufacturing, except for food processing and construction materials, where proximity to local markets is advantageous. Regarding the primary sector, it ranges from 2.1% to 26.4% depending on the presence of the mineral extraction industry, as the resources sector is included here (Gavrilyeva, 2016). It should be noted that agriculture tends to be underestimated due to traditional lifestyles and techniques still being practiced, such as nomadism and fishing, which are difficult to capture statistically.

Table 2. Employment structure by industry in the Sakha Republic in 2012 (%).

	Primary sector	Secondary sector	Tertiary sector	Workers/Workable age population (2010)
Arctic districts	13.7	2.1	84.2	69.3
Industrial districts	26.4	3.2	70.4	71.1
Agricultural districts	8.3	4.4	87.3	51.8
City districts	2.1	5.6	92.3	53.6
The Sakha Republic	13.4	4.1	82.5	59.6

Note: The primary sector deals with the extraction of raw materials or natural resources from the land. The secondary sector deals with manufacturing, and the tertiary sector is concerned with providing services.

Source: Gavrilyeva (2016) pp.22-24, Russian Statistical Agency.

Thus, employment in the Sakha Republic is highly dependent on the tertiary sector, except for certain resource extraction activities. This trend is clearer when compared to employment in the Russian Federation's tertiary sector, which accounted for 67 % in 2021. Furthermore, much of the tertiary sector employment is government-backed. Many settlements, especially in the Arctic and rural areas, have no alternative place of work except the fiscal sector. In such regions, unemployment rates are high, and pensions often become the only cash income in households. In addition, the concentration of population in Yakutsk created a potential unemployment threat and led to an outflow of highly skilled personnel, who were unable to secure jobs appropriate for their skills except outside the republic.

The following sections cover the Sakha Republic's public finances, both expenditures and revenues, which play a crucial role in maintaining employment and social services for residents.

4. Role of the fiscal sector in the Sakha Republic

Maintaining public services in scarcely populated regions is challenging. In such regions, public services such as water supply, sewerage, central heating, and roads are often inadequate, and the quality of education and healthcare is low, leading young people to migrate away in search of better educational opportunities and living conditions. focused on issues with social services in remote regions suffering from outmigration and pointed out that, while there are funding-related problems, human resource-related problems are even more detrimental in terms of maintaining services. Highly qualified personnel are scarce, and staff are aging in schools and policlinics. As young individuals vacate these regions, it becomes increasingly difficult to source new human resources. These problems also apply to the Sakha Republic. In addition to public services, such as education and healthcare, government subsidies for local dairy products also play a crucial role in supporting residents. Taking 2019 as an example, over 90 % of agriculture and fisheries expenditures, which included agricultural subsidies, came from the republican budget. At the district level, on average, 5 % of total expenditure is on agriculture and fisheries.

Let us now examine the level of local government expenditures in the Sakha Republic. The integrated regional government expenditure per capita in the Sakha Republic was approximately 259,000 rubles in 2019, which is 2.8 times higher than the Russian average of 92,425 rubles. The level was the seventh highest in the country after Chukotka Autonomous Okrug, Nenets Autonomous Okrug, Sakhalin Region, Yamalo-Nenets Autonomous Okrug, Magadan Region, and Kamchatka Region. However, this is not due to the generosity of public services, but rather because the Sakha Republic is a high-cost region with low population density, like other Far North and Far East regions. Meanwhile, approximately 35 % of the republic's expenditures are covered by federal transfers, meaning that Sakha is also a costly region for the federal government. The Arctic region as a whole is positioned

as a “donor” region, bringing abundant tax revenues to the federal budget. However, in contrast to regions such as Yamalo-Nenets Autonomous Okrug, the Sakha Republic also receives large amounts in fiscal transfers. Thus, tax payments from the Sakha Republic to the federal budget are nearly offset by receipts of fiscal transfers.

The composition of fiscal expenditure in the Sakha Republic is shown in Table 3, using 2019 as an example. Integrated regional expenditure amounts to 251.7 billion rubles, of which expenditure from the republican budget was 221.8 billion rubles. Expenditure by local governments, including cities and districts as well as urban and rural settlements, amounted to 120.4 billion rubles. Judging from these figures, the role of the republican budget is much larger than that of local budgets. At the local level, cities and districts have relatively large budgets, whereas administrations of urban and rural settlements play very limited role.

Table 3. Expenditure composition of governments in the Sakha Republic in 2019 (in millions of rubles).

	Integrated Regional	Regional	Cities	Districts	Urban Settlements	Rural Settlements
Total	**251,739**	**221,870**	**18,921**	**85,560**	**5,496**	**10,445**
General Administration	24,727	13,354	1,672	5,900	1,270	3,426
National economy	44,769	39,566	2,022	8,509	915	849
Housing and Utilities	36,700	31,497	1,494	1,477	1,846	1,385
Environmental protection	966	938	0	30	1	5
Education	76,823	49,008	11,401	52,223	16	96
Culture	13,151	4,008	1,019	3,560	1,116	3,861
Health	11,137	11,100	0	37	0	0
Social policy	37,917	37,262	1,138	2,986	128	138
Sports	4,486	2,940	147	785	166	670
Mass Media	1,061	1,014	27	15	4	1
Transfers to other governments	1	31,183	0	10,036	33	14
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
General Administration	9.8%	6.0%	8.8%	6.9%	23.1%	32.8%
National economy	17.8%	17.8%	10.7%	9.9%	16.7%	8.1%
Housing and Utilities	14.6%	14.2%	7.9%	1.7%	33.6%	13.3%
Environmental protection	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%
Education	30.5%	22.1%	60.3%	61.0%	0.3%	0.9%
Culture	5.2%	1.8%	5.4%	4.2%	20.3%	37.0%
Health	4.4%	5.0%	0.0%	0.0%	0.0%	0.0%
Social policy	15.1%	16.8%	6.0%	3.5%	2.3%	1.3%
Sports	1.8%	1.3%	0.8%	0.9%	3.0%	6.4%
Mass Media	0.4%	0.5%	0.1%	0.0%	0.1%	0.0%
Transfers to other governments	0.0%	14.1%	0.0%	11.7%	0.6%	0.1%

Note: "General administration" includes expenditure on defense, public security and justice, and public debt services. Expenditures on "national economy" refers to investments and subsidies for economic activities in various industrial sectors. "Social policy" refers to pensions and other forms of social benefits, such as family allowances.

Source: Russian Federal Treasury.

In terms of government roles played at each level, the republican government plays a wide range of roles, including the national economy, housing and utilities, education, and social policy, whereas over 60 % of expenditures by city and district governments concentrate on education. Therefore, municipalities are focused nearly exclusively on education, while other government functions are concentrated at the regional level. The time series shows that the share of educational spending in the local budget's total expenditure was 45 % in 2007 but increased yearly to 60.7 % by 2019 (Fig. 3). Local-level education spending is mostly related to general education, which is mandatory and cannot be arbitrarily controlled at the local level. After the global financial crisis of 2009, when each level of government faced tighter fiscal constraints, the May 2012 presidential decree—which required increased salaries for teachers, cultural staff, and medical staff—increased the burden of education costs. Therefore, the weight of mandatory expenses for local budgets has increased annually and local fiscal flexibility has decreased.

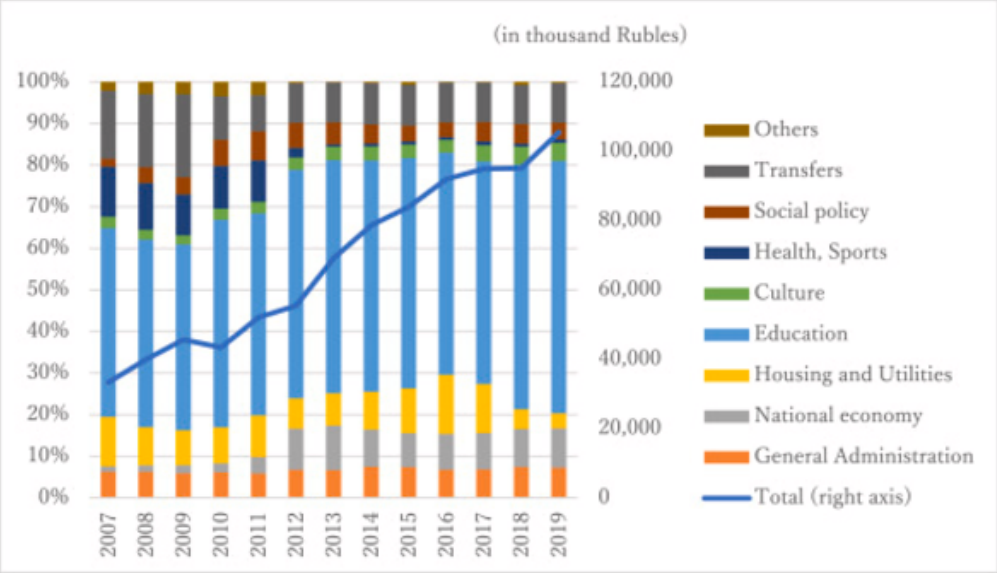

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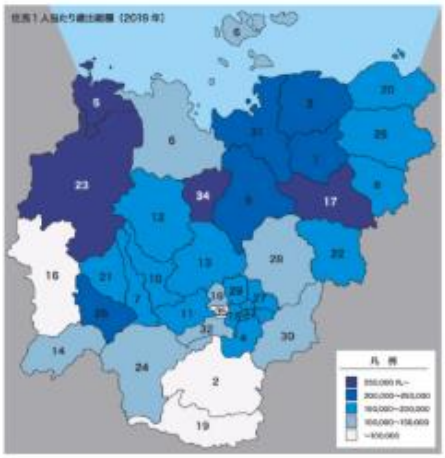
Fig. 3. Change in the expenditure composition of local governments in the Sakha Republic
Note: Local governments are the sum of 36 districts and cities, including Zhatai, an area within the city of Yakutsk.

Source: Ministry of Finance of the Sakha Republic.

Let us now examine differences in per capita expenditure of local budgets in the Sakha Republic. As there is no data on how expenditure from the republican budget is distributed across districts, expenditures from 36 municipal budgets are shown in Fig. 4. Fig. 4(a) shows the total expenditure per capita for 2019. The map shows that per capita expenditure is higher in the north of the Sakha Republic. Fig. 4(b) shows education expenditure per capita, which is also higher in the Arctic. For other spendings, such as spendings on the national economy and housing and utilities, it is difficult to find the similar geographical trend. Industrial location matters in national economic expenditure, while living conditions and demand for housing seem to impact housing and utility expenditure. However, fiscal transfers from districts to settlements per capita tended to be higher in the Arctic region.

(a)Total expenditure



(b) Education

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Fig. 4. Expenditure per capita in the Sakha Republic in 2019: (a)Total expenditure, (b) Education

Note: In these figures, the budget of Zhatai is contained in the city budget of Yakutsk.

Source: Ministry of Finance of the Sakha Republic.

Disparities in per capita spending by the Sakha Republic's local governments are shown in the Gini coefficients. The Gini coefficient for total expenditure was 0.19 on average for 2007–2019, with the lowest coefficient found for education expenditure, which averaged 0.17 over the same period. Other coefficients are higher: 0.40 for the national economy, 0.51 for agriculture and fisheries, 0.46 for roads, 0.59 for housing and utilities, 0.29 for social policy, and 0.26 for fiscal transfers. Therefore, education expenditure is distributed quite evenly, and, as it accounts for approximately 60 % of municipal expenditure, total municipality expenditures also show a high degree of equality across districts. On the other hand, other local expenditures for industry and infrastructure show high variability.

From these figures, we can see that finance at the local government level is highly constrained by mandatory education expenditure, with little capacity to respond to other needs. This hinders improvements to the local-level quality of social services. Starodubrovskaya argues there are three ways to solve the problem of social services in remote areas suffering from population outflows. First, their resources, including human resources, should be used as efficiently as possible. Second, access to services supplied in other regions should be guaranteed, which requires improved transport and administrative accessibility. Third, migration of the population to areas with better social services should be supported. Thus, one possible solution to the current situation is improving economic efficiency by integrating and consolidating social services in depopulated areas. On the other hand, some argue that fiscal resources and powers should be transferred to lower government levels so that regions can tackle local issues more independently. For example, Crate, who studied indigenous settlements along the Viliui River in the Sakha Republic, noted that inhabitants understand the need for diversifying village-level economic activity for regional development, with not only local food production and consumption, but also food processing, manufacturing of raw materials, development of entrepreneurial activities, including tourism and service industries, and so on. However, they also face many barriers, such as a lack of land and resource rights to instate local management, politically experienced leaders, and a common mindset of self-determination, partly due to the Soviet legacy.

Thus far, the Russian government has reduced the decision-making scope and financial resources at the local level, shrinking local expenditure to the minimum necessary. Thus, economic efficiency is to be achieved through a centralized approach. The necessity for changes to the inefficient economic structure created during the Soviet era, regardless of the costs, is undeniable. However, as Starodubrovskaya points out, excessive concentration of decision-making power and financial resources at the federal level, as well as federal regulations that fail to account for varied regional conditions, hinder rather than solve problems, likewise hindering improvements to the local population's quality of life.

5. Revenue inequality and the role of transfers

Finally, let us examine resource distribution to finance the above-mentioned public services. Table 4 shows the revenue composition of the integrated regional budget—that is, the sum of the Sakha Republic's republican and local budgets in 2019. At the republican level, 18.5 % of the revenue is from corporate profits tax and 12 % from personal income tax, and there are also revenues from property tax (mostly corporate property tax) and natural resource utilization taxes. Fiscal transfers from the upper level of the government accounted for 31 %. In contrast, local governments, including cities, districts, and urban and rural settlements, depend heavily on transfers from higher government levels. In relatively populous cities and urban-type settlements, personal income tax and general income tax account for over 30 %, and fiscal transfers around 50 %. However, districts and rural-type settlements have few tax bases of their own, and 80–90 % of their revenues consist of transfers from upper budgets.

Table 4. Revenue composition of governments in the Sakha Republic in 2019 (in millions of rubles).

	Integrated Regional	Regional	Cities	Districts	Urban Settlements	Rural Settlements
Total	**249,010**	**220,006**	**18,745**	**84,544**	**5,826**	**10,442**
Corporate Profit Tax	40,757	40,757	0	0	0	0
Personal Income Tax	42,267	26,647	4,872	8,149	1,909	691
Excise Tax	5,157	4,724	16	292	33	92
Comprehensive Income Tax	3,718	0	2,299	1,406	1	11
Property Tax	18,530	17,710	260	3	447	110
Tax on Natural Resource Usage	21,470	21,222	93	156	0	0
Income from publicly owned assets	20,722	15,065	278	5,054	290	47
Transfers from other governments	67,903	68,092	10,618	67,823	2,410	9,500
Other	28,486	25,789	309	1,662	736	−10
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Corporate Profit Tax	16.4%	18.5%	0.0%	0.0%	0.0%	0.0%
Personal Income Tax	17.0%	12.1%	26.0%	9.6%	32.8%	6.6%
Excise Tax	2.1%	2.1%	0.1%	0.3%	0.6%	0.9%
Comprehensive Income Tax	1.5%	0.0%	12.3%	1.7%	0.0%	0.1%
Property Tax	7.4%	8.0%	1.4%	0.0%	7.7%	1.1%
Tax on Natural Resource Usage	8.6%	9.6%	0.5%	0.2%	0.0%	0.0%
Income from publicly owned assets	8.3%	6.8%	1.5%	6.0%	5.0%	0.5%
Transfers from other governments	27.3%	31.0%	56.6%	80.2%	41.4%	91.0%
Other	11.4%	11.7%	1.6%	2.0%	12.6%	−0.1%

Source: Russian Federal Treasury.

For the Russian Federation on average, 78.4 % of total regional revenue is from independent resources, such as tax and non-tax revenues, and 21.6 % is from fiscal transfers in2019. Therefore, compared with the average, Sakha's republican budget has a relatively high weight of fiscal transfers from the federal government. In terms of local governments, reliance on fiscal transfers from the upper government was 61.2 % for cities, 75.6 % for districts (*raions*), 47.3 % for urban settlements, and 64.3 % for rural settlements on average for the Russian Federation. From these figures, we can say that Yakutsk city's budget is more independent than the national average, and the budget for urban-type settlements has the same degree of independence as the national average, whereas districts and rural settlements are considerably more fiscally dependent on the upper government than the national average. This reflects the Sakha Republic's unique economic structure, where economic wealth is concentrated in Yakutsk and some mineral-producing districts, while other areas have no significant industry.

The share of tax and non-tax revenues in the total revenue of Sakha's republican budget was 54.5 % in 2008, which declined to 42.9 % in 2009 and rose again to over 60 % in the late 2010s. Although at first glance this may appear to show increased fiscal independence of the republican budget, it was in fact the result of reduced federal transfers to the regions after the global financial crisis. This is confirmed by the fact that the Sakha Republic's regional budget has tended to slip into budget deficits since 2012. At the local level, on the other hand, there has been a slight increase in reliance on fiscal transfers from higher government levels over the same period, with the weight of fiscal transfers in local government revenue increasing from 68.7 % in 2007 to 75.8 % in 2019. Thus, federal transfers to regions have been reduced with the deterioration of the federal budget's fiscal balance after the global financial crisis, while simultaneously local governments became more dependent on the republican budget.

The following section focuses on revenue inequality across the Sakha Republic's local governments and how fiscal transfers from the republican budget have reduced this inequality. Fig. 5 shows the 2019 revenue composition per capita in the Sakha Republic's cities and districts. There is a 34-fold disparity in tax and non-tax revenues, from 5535 rubles in Namsky District to approximately 190,000 rubles in the Olenyoksky District. Only four districts—Anabarsky, Olenyoksky, Mirninsky, and Lensky District—have over half of their revenue from tax and non-tax sources. Anabarsky and Orenyoksky Districts have the highest revenues from state-owned assets at 46 % and 38 %, respectively, whereas Mirninsky and Lensky Districts have the highest personal income tax revenues, accounting for 34.6 % and 43.7 %, respectively. In other districts and cities, fiscal transfers are overwhelmingly important revenue sources. Fiscal transfers can be classified into three categories: equalization grants (Dotatsiya) for reducing disparities and guaranteeing financial resources; subvention grants (Subventsiya), which compensate for mandated affairs from the upper level of government; and subsidy grants (Subsidiya), for financing

policies. Subventions are highest for Sakha Republic municipalities, accounting for approximately half of their total revenue.

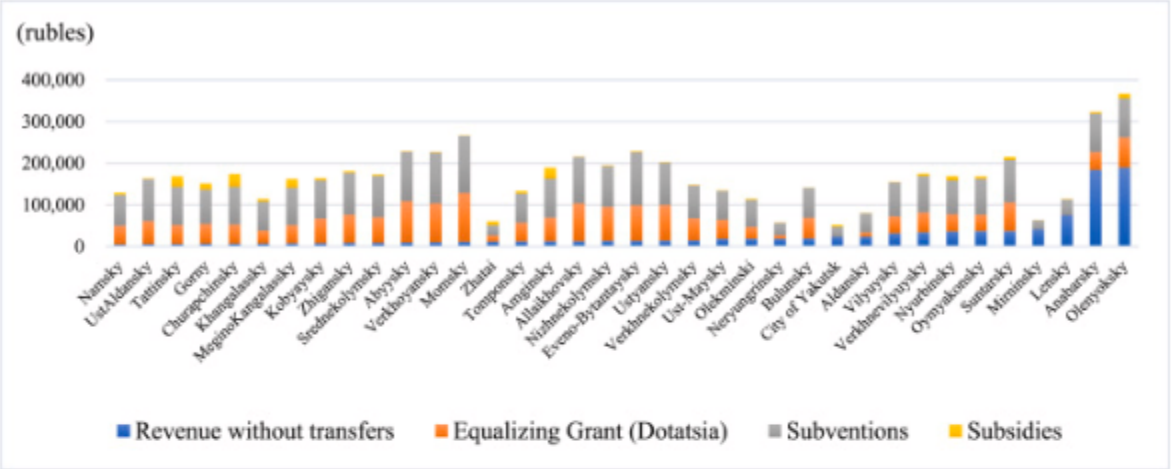

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Fig. 5. Revenue composition per capita in the Sakha Republic's districts in 2019

Note: Districts are listed from left to right in increasing order of tax and non-tax revenues.

Source: The Ministry of Finance of the Sakha Republic.

For local governments, it is impossible to introduce new taxes or increase rates even when they lack financial resources. In addition, Russian Budget Code stipulates that municipalities receiving equalization grants beyond a certain share of their independent revenues, such as tax revenues, are prohibited from spending on items other than those defined by federal and republican laws or must be supervised by republican governments on budget execution. Under these rules, the only municipalities in Sakha not subject to these restrictions would be the city of Yakutsk, Mirninsky District, and Lensky District. Thus, local governments cannot carry out financial expenditures at their own discretion, and they are placed under the control of a higher level of government.

Therefore, transfers from upper government levels are crucial for sustaining local public services. Among fiscal transfers, equalization grants (Dotatsiya) are

unconditional and allocated based on a formula. This formula is not based on actual revenues and expenditures, but on objective criteria to calculate fiscal demand and potential tax revenues to compensate for gaps. Fiscal demand calculations consider various indicators, such as prices, wage levels in each municipality, fuel and energy prices, utility costs, transportation costs, climate, and needs for social services such as daycare. Furthermore, additional costs are incurred for Arctic districts. Grants are allocated in two stages, with 60 % allocated in the first and the remaining 40 % in the second, thus guaranteeing the financial resources of local governments at 90 % of the calculated fiscal demand.

Subventions (Subventsiya), another major type of transfer, are conditional grants to finance expenditures mandated by upper governments. There are many types of this subvention, the main one of which is concerned with social policy, such as housing and utilities subsidies for certain categories of residents, unemployment benefits, housing guarantees for certain categories of residents such as veterans, and so on. Subventions also cover spending on education, healthcare, protection of cultural heritage, and protection of forest and water resources. The number of subventions has been reduced owing to partial consolidation into the integrated subvention, but their significance has increased. In 2005, subventions accounted for 11.5 % of total transfers from the federal government but rose to approximately 20 % by the late 2010s. Subventions are especially important at local levels, accounting for nearly 50 % of municipal revenue in the Sakha Republic.

Let us examine the extent to which fiscal transfers have contributed to reducing disparities between Sakha Republic municipalities. Fig. 6 shows the Gini coefficient of revenue per capita in the 36 Sakha Republic districts before and after fiscal transfers, with total revenue remaining around 0.2, which is less than before the transfer. This indicates that the disparity was corrected to some extent by the transfers. On the other hand, the coefficient for revenue without transfers—that is, tax and non-tax revenues—gradually increased from 0.3 in 2008 to 0.4 in 2016, jumping to 0.6 after 2017. This sharp increase was due to increased revenue from public asset utilization in local revenues. Revenue from public asset utilization includes dividends from company stocks that municipalities hold and is highly unequally distributed across districts, depending on whether the company is located in the district or not.

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Fig. 6. Gini coefficient of revenue per capita in the Sakha Republic districts.
Source: The Ministry of Finance of the Sakha Republic.

In terms of subventions, the total amount received by each local government is strongly correlated with their educational spending, although subventions include subsidies for various administrative tasks delegated by the higher government level. If we calculate for 2007–2019, a 1.00-ruble subvention increase led to an education spending increase of 1.06 rubles on average, for which the correlation coefficient is 0.83. Therefore, we can assert that the major source of municipal-level education spending was the subvention from the republican budget. The fact that the higher-level government is securing educational standards through subventions can be seen as a testimony of the Russian government giving priority to national education. At the same time, however, dependence on the upper government for educational resources leads to uniformity in educational content, which does not allow for alternative narratives. Under current political circumstances in Russia, in which government critics are not tolerated, such a system prevents local governments from avoiding patriotic-slanted education demanded by the federal government. Yushkov,

who analyzed the nature of subventions in Russia, argues that they are a means for the federal government to control regional governments, serving as insurance against regional political risks. Local governments are nudged in the direction that central government policy requires of them during the process of competing for additional transfers. Such relationships exist not only between the federal and regional governments but also between regional and local governments.

6. Conclusion

As we have seen, the Russian government's Arctic policy emphasizes the need for improved living standards for the Arctic population, as well as regional infrastructure construction and economic development. However, many of the goals of this policy, including attracting investments from Western countries, face challenges after the outbreak of the war in Ukraine. Therefore, the development of this region is now more dependent on the Russian federal budget, which faces tight constraints owing to rising war costs.

As in other Arctic regions, the Arctic area of Sakha Republic experienced a massive population decline following the Soviet Union's collapse, not only due to the harsh climate and employment issues but also the poor quality of public services, such as education and healthcare. Public services are extremely costly in the vast and sparsely populated Arctic regions, while municipalities responsible for social services have limited financial resources, with 75–80 % of their expenditure financed by fiscal transfers from the republican budget. In addition, municipal budgets are severely constrained by mandatory spending on education and have little room to finance other policy issues, such as improving local transportation infrastructure, economic policy to boost local industry, and social services such as health care. Thus, while the Russian government aims to improve the quality of life for Arctic residents, local administrations have neither the financial capacity nor decision-making power to tackle local problems, signaling difficulties in achieving the goals set out by the Arctic policy.

“Problems of unconventional gas resources production in arctic zone -Russia-,” Zyrin Viacheslav and Ilinova Alina, Espacios, 25 May 2018 [70]
http://www.revistaespacios.com/a18v39n42/a18v39n42p17.pdf

Abstract:

This paper is aimed to underline strategic importance of the Arctic as a wealth of petroleum and mineral resources. One of the most potential nonconventional sources of natural gas is gas hydrates, which impressive resources are concentrated in the Arctic Zone. The paper in general presents main characteristics of the Russian Arctic and gas recourses. Then we present some economic issues of gas hydrates production and it is paid special attention to environmental regulation of natural recourses production.

Current & Relevant Information:

Introduction

Russia is one of the most important players in the Arctic Zone with wide range of economic, security and political interests in the region. Arctic is a wealth of petroleum, gas and other mineral resources. From being regarded almost like a restricted area, the Arctic has become a global economic, ecological and social concern (Moe,2016). In 2008, the United States Geological Survey (USGS) estimated that the Arctic might contain 13% of the world's undiscovered oil and 30 % of its undiscovered gas (Gautier, 2009). Of these hydrocarbon resources, 84% were believed to be offshore and most of them are not distributed: the highest concentrations are expected to be in north of Alaska and in the western part of Russia (Moe,2016).

Oil and gas resources are vital to Russian national security and economy; oil and gas alone account for roughly 20-25% of Russian GDP (Simola, 2013).

Arctic has been proclaimed as the resource base of the twenty-first century (Moe, 2016). The Russian Arctic shelf in the future can become the main source of hydrocarbons for both Russia and the world market in the whole. Its industrial development in some circumstances (oil and gas prices, new knowledge and technologies, legal framework, etc.) may compensate decrease in oil and gas production in the old deposits in Russia (Western Siberia). The special role is assigned to up-to-date extraction technologies and oil and gas recovery technologies, providing energy effectiveness and ecology safety [Cherepovitsyn,2016; Zyrin, 2016: Nikolaev, 2016] and also to extraction of nonconventional oil and gas resources. One of the most important nonconventional sources of natural gas is gas hydrates (GH).

Gas hydrates are crystalline gas and water compounds with a variable composition. According to various estimates, natural gas hydrates contain about 2,000-5,000 trillion cubic meters of natural gas. Most part of these gas resources is concentrated in the Arctic Zone. According to Russian estimates, up to 1,000 trillion cubic meters of gas hydrates may be present in the Russian Arctic (Youkashev, 2015).

In this paper we would like to pay special attention to the technologies providing gas hydrates production in the Arctic Zone and to the ecological aspect of this activity.

Conclusions

In the whole, at this stage the Russian Federation largely keeps up from the European countries and USA in the sphere of environmental issues, that is why close cooperation with international ecological organizations can have a positive effect both on the development of the national science and in this area, and on the improvement of new ecologically friendly technologies. Active ecological policy in respect of distinguishing technologies for oil and gas production in the Arctic will help

to save ecosystems of the most important strategic region of the Russian Federation and the whole world for the further effective and sustainable development of the territories.

Gas hydrates are one of promising nonconventional sources of gas in the long-term period. In this regard issues of development of ecologically safe technologies which will allow to get gas hydrates is especially relevant. The ecological risks are the main point for future gas hydrate production, and technological progress should be based on the ecological safety, and could be provided in the following ways:

1. Government and public control for any implemented Arctic hydrate recovery technologies

2. Complex research of drilling process for GH formation

3. Proved by numerical researches and simulation, field test efficiency and safeness of implemented technologies for Arctic deposits

4. Careful technology control – control for formation condition, gas production rates prevention of creating so called gas-hydrate bomb

5. Control on hydrate decomposition and gas releasing through evaporation

6. Exclude aggressive inhibitors-based technologies for Arctic zone

7. Careful control for heating methods, preventing heating of near layers.

“Why Russia’s Arctic agenda should be of more concern than China’s actions,” Nong Hong, Institute for China-America Studies, 7 October 2022 [71]
https://chinaus-icas.org/research/why-russias-arctic-agenda-should-be-of-more-concern-than-chinas-actions/

Overview:

With war stifling cooperation in the Arctic, including on critical climate change research, keeping region separate from global security concerns is a challenge. China, for its part, does not see itself as a competitor in the Arctic, but Russia’s military build-up in the region is another, more worrying matter.

Current & Relevant Information:

A recent report titled “China’s Strategy and Activities in the Arctic”, by the US-based Rand Corporation and Swedish Defense Research Agency, examines the potential implications of Chinese investment and activity in the Arctic. It points out that while China’s presence in the North American sections of the Arctic remains limited, the world should keep an eye on its relationship with Russia, which will create uncertainties in the region.

A careful observation of China-Russia relations in the Arctic alongside recent developments in the region arising from the Ukraine conflict can shed further light on the factors that are causing uncertainty in Arctic affairs.

China has become an active participant in Arctic governance, joining international institutions and promoting bilateral relationships with Arctic states – including Russia – in such various fields as shipping, resource development and scientific research.

In 2019, President Xi Jinping and Russian President Vladimir Putin signed a joint statement vowing to strengthen global strategic stability and promote cooperation between the two countries in the Arctic area.

On February 4, the eve of the Beijing Winter Olympics, Putin and Xi signed another joint statement which outlined plans for deeper bilateral cooperation, including in Arctic affairs. China has invested in hydrocarbon projects in the Russian Arctic, as well as port infrastructure along the Northern Sea Route.

Despite these collaborations, Russia and China may have different long-term goals in the Arctic. While sharing some common desires, the two countries have a complex relationship that balances competition and cooperation, with lingering mistrust on both sides. Their Arctic endeavors will continue to be shaped by pragmatism, with a focus on mutual economic benefits rather than a strategic pact.

Moscow, for its part, will remain cautious about Chinese ambitions. Beijing, meanwhile, has been trying to maintain a certain degree of non-alignment amid the Ukraine crisis. Although widely seen as providing Russia with an economic lifeline in the wake of Western sanctions, China has taken certain measures against Moscow, including a move by state banks to limit financing for buying Russian commodities.

The report by Rand makes several recommendations to the US government, one of which is to maintain the governance of Arctic affairs among Arctic states, serving as a powerful instrument against undesirable Chinese involvement in the region.

However, a new paper by P. Whitney Lackenbauer, Adam Lajeunesse and Ryan Dean rejects the narrative that casts China as a peer competitor in the Arctic. It points out that commentators have often overstated the scale of Chinese investment and engagement in the Arctic. Though China defines itself as a stakeholder in the region, in its 2018 Arctic policy white paper it emphasises the importance of cooperation between Arctic states and non-Arctic states. In short, China does not see itself as a competitor in the Arctic.

The uncertainty raised by Rand’s report deserves attention. Yet instead of focusing on China’s exaggerated influence in the Arctic, what is truly worth mentioning is Russia’s Arctic strategy following the outbreak of the Ukraine conflict. In July, Putin signed a new maritime doctrine that outlines Russia’s key strategic priorities in marine and maritime development, stressing Arctic waters.

This doctrine comes at a time when Russia is facing tremendous difficulties in maintaining its role in Arctic affairs due to the Ukraine conflict. The reduction of economic activity in Russia's Arctic and suspension of funding for many scientific projects involving Russia have sparked concern over what measures Moscow will take to address the issue.

The marine doctrine places significant emphasis on the Arctic, mentioning it 66 times across 22 pages. It also outlines a plethora of measures for enhancing the Russian navy's warfare capabilities in both the Arctic and the world's oceans, as well as plans for naval development, including the building of aircraft carriers and a higher level of engagement of civilian ships in military activities.

Although it is not a new phenomenon for civilian ships to be given a role in national security preparedness or military conflicts, and indeed Russia has a lot of experience in using non-military ships for military purposes, this new doctrine clearly prepares the ground for a more systematic approach.

Meanwhile, the joint statement by Arctic Council states in March announcing the suspension of all council meetings indicates grave impediments to international cooperation in the Arctic. Though the Arctic Council does not directly fund research, it helps set the scientific agenda for collaboration among member countries.

The European Commission also halted all funds for scientific collaborations involving Russia, and was followed by other funding agencies and institutions who adopted similar policies. The Ukraine conflict, while severing partnerships between researchers inside and outside Russia across many fields, has had a particularly profound impact on climate science in the Arctic.

There is a decades-long tradition of scientific collaboration between nations in this region and Russian scientists play a key role in tracking changes such as permafrost degradation and methane emissions from warming landscapes. Thus, the war in Ukraine has presented a unique dilemma for climate researchers and scientists.

With so many uncertainties emanating from Russia, the long-standing post-Cold War perception that the Arctic would benefit from a disconnect from security concerns has lost its essence. Instead, the geopolitical importance of the Arctic region is coming back into focus with Russia's full military escalation of Ukraine and the worrisome loss of the status quo in Arctic cooperation.

"Methodology for Defining Pivotal Settlements in the Russian Arctic," Viktor V. Fauzer, et al., Economic and Social Changes: Facts, Trends, Forecast, 2019 [72]
http://library.vscc.ac.ru/Files/articles/1575974920_2543_eng.pdf

Abstract:

Settlement in new regions of the Russian North, available for new economic exploitation, started at the beginning of the 20th century: the exploration of mineral

deposits, its mining and shipment into southern regions commenced at the same time. Experience of building cities as trade and industrial centers, marine ports, and military settlements, which was acquired in the 18th–19th centuries, was insufficient. It was necessary to define forms of settlement, quantitative parameters of emerging communities, and convenience of the latter. Discussions and knowledge acquisition resulted in a consent to build permanently populated large cities. It was suggested to build basic cities in the North and pivotal cities, which would have infrastructural functions, in nearby areas. Quantitative guidelines on population numbers for each type of settlement were proposed: pivotal cities – 300 thousand residents, basic cities – 80-150 thousand people, industrial cities – 15-30 thousand inhabitants, watch and expeditionary villages – 3-5 thousand people. After making the Arctic Zone in the Russian North the independent management unit consisting of nine pivotal areas, it became necessary to justify settlement framework, which would meet new requirements. Thus, the purpose of this article is to develop the methodology of calculating the Index of Pivotal Settlement which would allow us to classify an urban settlement as a multifunctional pivotal settlement, a pivotal settlement, a potential pivotal settlement, and as a settlement which does not meet criteria of a pivotal one. The creation of this index is based on three methodological principles: complexity, consistency, and account of agglomeration effect. The calculation of the index of the Arctic pivotal settlements is carried out due to the concept of demographic gravitation. Acquired results would allow each Arctic pivotal area to determine pivotal settlements, and the centers of surrounding areas development.

Current & Relevant Information:

Introduction

It is difficult to overestimate the role of the Arctic in country's economic development. 90.4% of the whole Russia's natural gas amount was mined here, as well as 24.7% of associated gas, 17.6% of oil, and 10.8% of iron ore concentrate. Also, more than 50% of platinum, nickel, cobalt, copper, 15.0% of fish and fishery products were produced here.

The formation of the settlement system in Northern and Arctic regions was conducted in several steps. The period of the 1930s was experimental in terms of building cities and urban-typed settlements (UTS). The 1940s could be characterized by rapid increase in the North economic development rates. In the following years, together with industrial and urban development, a broad geological search was continuing and new, unique deposits were discovered. The settlement of the Far North regions in 1970s was influenced by science and technology development.

The focal settlement structure, which has a pattern of territorial expansion on the basis of socio-economic relations between industrial centers and economically

developed areas of the middle zone, is the characteristic of the early North exploration period. Due to unfavorable natural and climatic conditions, and high expenditures on all sorts of manufacturing works, social infrastructure, and personnel maintenance, continuous territorial Arctic development has never happened. Besides, it is prohibited because of the environmental reasons. Thus, the focal settlement type, which is based on large strategic mineral deposits, is and will be the only option for the Arctic.

V.I. Kondrat'eva notes that "space characteristics typical of the Russian region of the Arctic, such as focal-dispersed settlement nature, underdevelopment of road and transport infrastructure, extremely high costs of life support, due to extreme climatic conditions, show the advantage of this territorial approach, which purpose is the resource investment into pivotal settlement and infrastructural frameworks' development".

The model of pivotal settlements based on the concept of demographic gravitation is presented in this paper. Pivotal network should contribute to Russia's economic development and comfortable life of population in the Russian region of the Arctic. Special attention is given to the study of the longtime practice of building settlements for the permanent population residence. It is different from foreign practice which is based on the building of temporary settlements.

In 2010s, approaches toward the Russian North development went through significant changes: attention was shifted to the Arctic space rather than the exploration of all Northern territories. Out of 11,931,100 sq. km of the Russian North, 3,754,600 sq. km (31.5%), which make up AZRF (Arctic Zone of the Russian Federation) land territories, were given special attention. 2,406,400 mil. people, or 24.3% (out of 9,920,920 mil. northerners) became residents of the Arctic.

Nowadays, most northern strategies and development programs are aimed at the Arctic. Authorities' attitude toward northern territories also changed. The former strategy "from exploration to habitation" has transformed into "the transition from the residence policy to the policy of non-indigenous population staying in the Far North" approach. It makes studies on the watch-based method of labor organization, on the network of pivotal settlements justification, and centers of arctic space development relevant.

The research on settlement network transformation from small villages to pivotal and basic cities was analyzed within the methodology of "spatial development", which can be defined as coordinated progressive changes in the development and reproduction of natural resources, the placement and internal maintenance of productive powers, in the population settlement, and the construction of the living environment.

The subject of the research is the Russian region of the Arctic within borders defined by the President of the Russian Federation in his Decree 287 dated 27.06.2017. In

2019, eight uluses of Sakha Republic (Yakutia), which are not analyzed in the article, were included into AZRF. The goal of the research is to develop a methodology for calculating the Index of Pivotal Settlement which would allow relating an urban settlement: to a multifunctional pivotal settlement, to a pivotal settlement, to a potential pivotal settlement, to a settlement which does not meet criteria of a pivotal one. The following goals were set: to analyze the transformation of the settlement system in the Russian region of the Arctic, to examine the modern approaches to the settlement of the Russian North, to analyze the dynamics of population and urban settlements in the Russian region of the Arctic, to develop a method and algorithm of calculating the pivotal settlements index, and to arrange urban settlements in the Russian region of the Arctic according to criteria of pivotal settlements.

The informational basis of the study is represented by the Russian Federal State Statistics Service data, which include a database of municipalities' indicators, official websites of cities and villages, websites of authorities and state organizations, databases of geographical data, regional and federal legal acts.

Conclusions

A number of conclusions and suggestions can be drawn from the analysis:

1. It is proved that Arctic cities should have limits of growth: the optimal size of urban settlements is in the range of 50–100 thousand inhabitants; it is recommended not to form new permanent settlements in areas with unfavorable medical and geographical conditions;

2. For the future, authorities suggest the transition from the residence policy to the policy of non-indigenous population staying in the Far North;

3. It is necessary to improve the division of labor between the Northern regions and the main settlement areas, to develop the pivotal centers of Northern development in them; the procession of the "Northern resources" is available in basic settlements, located in the middle North;

4. Taking into account the new role of the Arctic in socio-economic development of Russia, the negative trends of decreasing number of settlements' population, we grouped arctic cities and UTSs according to the pivotal settlement criteria with the help of suggested algorithm of PSI calculation. It allowed us to suggest development centers for each pivotal zone of the Arctic. The basic settlements, having special value, but meeting the criteria of basic settlements, are proposed for several PZ (Igarka, Tiksi, Anadyr, and Pevek).

The scientific and practical relevance of the work is the formalization of the "pivotal settlement" concept, which can be used in the development of strategic documents on the Arctic territories' exploration and the spatial development of Russia.

Further studies should focus on the formation of public policy measures for the optimal management of the demographic and labor potential of each analyzed settlement group.

“Organizational Mechanisms for Implementing Russia's Arctic Strategy in the 21st Century,” Konstantin S. Zaikov, et al., Arctic and North, 2020 [73]
https://www.researchgate.net/profile/Konstantin_Zaikov/publication/342444082_Organizational_Mechanisms_for_Implementing_Russia's_Arctic_Strategy_in_the_21st_Century/links/5f21641f299bf134048f888c/Organizational-Mechanisms-for-Implementing-Russias-Arctic-Strategy-in-the-21st-Century.pdf

Abstract:

The Arctic in the 21st century remains a popular topic in the natural-scientific, economic, socio-humanitarian, and political spheres. The relevance of studying the Arctic is determined by the fact that in recent decades, deep and irreversible transformations have taken place in this region, and a full under-standing of the causes and consequences of which for the economy and environmental management has not yet developed. As a result of climate change and globalization, there is a growing interest in the Arctic macro-region on the part of many foreign countries that developed strategies and programs for the development of national Arctic zones at the beginning of the XXI century. Against the background of global com-petition for resources and transport communications, it seems relevant to analyze the features of the development of Russia's state policy for managing the Arctic zone of the Russian Federation in the XXI century. The article analyzes the mechanisms of implementation of Russian state policy in the Arctic based on the strategic planning system and reveals the bottlenecks in the system of state management of the Arctic region. It is concluded that the core of Russia's policy in the Arctic is innovative modernization that can ensure sustainable socio-economic development, infrastructure development, rational use of natural resources, protection of local ecosystems and development of indigenous communities.

Current & Relevant Information:

Introduction

The Arctic is a high-latitude region of the High North, except for the dry part, incl. the continental shelf and the exclusive economic zone of the seas of the Arctic Ocean, as well as the outlying territories of North America and Eurasia.

The deep interest of Russia in the development of the High North and the Arctic has existed for centuries. Changing forms and priorities, it reached a level when the Arctic territories become one of the means of ensuring national security and sustainable socio-economic development of the state. The formation and scientific justification of the development priorities of the circumpolar territories of the Russian Federation is one of the critical tasks in the development and modernization of the

economy. The role of science is increasing not only due to the influence of the natural-geographical factor in the Arctic region but also due to the differentiation of the natural and economic conditions of economic activity existing in this zone. Such distinction necessitates the development of specific Arctic-oriented regulatory legal documents to manage the development of the vast and non-standard Arctic zone of the Russian Federation (the Russian Arctic, the Arctic zone).

A study of the directions and problems of the development of the Russian Arctic shows the significant role of geographical science in the development and solution of national economic issues. The geographic approach creates the opportunity to justify the sustainable socio-economic development of not only the Russian Arctic but the entire state. It formulates strategic benefits for Russia both within the circumpolar zone and the Eurasian continent, and in the global economic space.

Conclusion

Currently, the Arctic from the world periphery is turning into a zone of close attention to many countries. In the 21st century, in Russia, the development of the state policy for managing the Arctic zone continues non-standard, extensive, with vast distances, with extreme climatic and socio-economic conditions of management.

The regulation system for the development of the Russian Arctic is characterized by historical continuity, and now it fits into the federal system of strategic planning. According to Decree of the Government of Russia dated December 26, 2015 No. 1449, action plans for the development of the Russian Arctic are reflected in the activity plans of the federal executive bodies, which should include a schedule of activities for the implementation of strategic planning documents. Decree of the Government of the Russian Federation “On the organization of project activities in the Government of Russia”. In conjunction with the order of the Ministry of Economic Development of the Russian Federation dated April 14, 2014 No. 26R-AU “On the Approval of Methodological Recommendations for the Implementation of Project Management in Executive Bodies”, they allow managing the development of the Russian Arctic on the principles of project management, incl. the formation and implementation of support development zones in the Arctic.

In current conditions, the task of adapting to the global economic trends in the economies of the Arctic regions of the Russian Federation, and state support for private and state projects for the development of the Arctic space is of particular importance. Currently, unified approaches to providing such support for projects implemented in the Russian Arctic are not developed. The solution to the problem may be the formation of support zones of development, which should ensure the establishment of a multiplicative effect not only for the Arctic but also for nearby territories. Thanks to measures of state and corporate support, the core of Russia’s policy in the Arctic is knowledge, innovative modernization in the name of national

security interests, sustainable nature management, conservation of unique ecosystems, and the viability of local communities.

The basis of state policy aimed at sustainable socio-economic development of the Arctic region should be based on the following approaches:

• development of research activities, i.e., accumulation of knowledge about climate change, the impact of these processes on the socio-economic systems of the Arctic;

• resource efficiency, i.e., integrated extraction and use of fuel and energy, mineral and raw materials, aquatic biological and tourist and recreational resources;

• environmental conservation: the use of Arctic-oriented ecological standards and technologies, incl. international standards for assessing the environmental impact of ongoing and planned business activities;

• human orientation: provision to the public, incl. indigenous people, opportunities to meet social and cultural needs, the involvement of indigenous representatives in the process of making managerial decisions in the field of nature management and socio-economic development of their territories;

• innovation: creative solutions and innovative technologies based on international experience, interdisciplinary research, and education will ensure the safety of the population. Re-search superiority, the pace of creating new knowledge, and introducing innovative products into production are critical factors in ensuring the competitiveness and sustainable development of the Russian Arctic.

It seems appropriate to develop further Arctic-oriented approaches to the development of programs, regulatory legal, tax, financial, economic and administrative-organizational mechanisms to ensure the effective development of the Arctic spaces, attract investment, protect national interests, create new highly qualified jobs, and develop infrastructure, ecological safety of the population and the environment in the Arctic macro-region.

At the same time, the prevailing trends in the socio-economic development of the Russian Arctic, the need to diversify the region's economy, and attract investments against the backdrop of sanctions and budgetary constraints determine the need to find new effective approaches to managing the region.

"How Russia is leveraging its Arctic region for global influence," Rachel Premack, Freight Waves, 19 January 2023 [74]
https://www.freightwaves.com/news/stronghow-russia-is-leveraging-its-arctic-region-for-global-influencestrong

Overview:

For the past decade, while the rest of us weren't looking, Russia has invested seriously in its Arctic region. Now, some 20% of the country's GDP and 30% of its exports come from these chilly lands. Climate change has softened the landscape where critical oil and gas reserves were stuck underground, while melting ice caps have allowed tanker ships to transport that fuel across Eurasia.

It's a fascinating trend that's set to get more critical in the coming decades. To learn more, we spoke with Malte Humpert, senior fellow and founder of the Arctic Institute. Our interview transcript was lightly condensed and edited for clarity.

Current & Relevant Information:

FREIGHTWAVES: Just to get started, who or what entities or companies or countries are currently shipping through the Arctic Ocean?

HUMPERT: By and large, it's Russia.

We have to distinguish between the ice-covered Arctic and the non-ice-covered Arctic. There has always been shipping in the Arctic around the Norwegian coastline, Iceland and some shipping along Greenland in the summer, whenever there is no ice.

But what's really happened in the last 10, 12, 15 years is that we are shipping in an area that was previously just the domain of nuclear icebreakers along the Russian coastline, or through the Canadian Archipelago, along the Northwest Passage. So, that's really where the big change has been happening over the last 10, 12, 15 years.

Whenever they're talking about Arctic shipping or new trends or routes, it's really along the Russian coastline, which goes from Murmansk on the western side to Kamchatka in the far east. It is, in theory, a shortcut to connect markets in Europe and in Asia.

Arctic shipping routes mostly feature liquefied natural gas and oil tankers. No container ships yet!

In the '80s and '90s, and even in the 2000s, it was really just nuclear icebreakers providing supplies to local communities, to supply some military installations. Now, we are seeing a lot of destination shipping. Russia is using the Northern Sea Route to bring oil and gas resources, some coal, some iron ore, but mostly LNG and oil from the Arctic to markets in Europe and in Asia. That's the big volume, and that's where Russia has been investing a lot of money into new icebreakers, into new port infrastructures, into new ice-capable tankers, LNG and oil.

We are [also] seeing some branded shipping. There have been a couple hundred voyages now. It started really in 2009 with a German company called Beluga, which was the first one to send cargo ships through the Northern Sea Route. From then,

we're seeing anywhere from a few dozen to now 70, 80, 90 voyages a year. This year we didn't really see any, because of Ukraine and sanctions.

A lot of companies that did some trial voyages the last few years decided to not do it anymore.

But the biggest one is probably Cosco of China. They've probably been the most adventurous. They're doing the most trial voyages to gain operational experience. And they've probably done 60, 70, 80 voyages in the last seven, eight years. They're sending easily boxed cargo, like large windmill parts, or windmill blades, or some iron ore from Asia to Europe to use those quick shortcuts.

[There's also] Maersk, which did one container ship in 2019. That was a big story, when they had a new ice-capable container ship that needed to go to the Baltics. Instead of going the traditional route through the Suez Canal, they just went through the Arctic. It generated a lot of headlines, but it was a one-off voyage.

By and large, it is Russia doing it. Russia is doing it to bring natural resources from the Arctic to Europe and Asia.

The Arctic Ocean will probably never be a major route

The question is, long term, if the ice keeps melting and eventually you really have an ice-free summer, will eventually big liner operators be able to go through the Arctic? There's always two sides to it.

There's those that are saying, "No, it's just not feasible. It's not reliable enough. You need schedule reliability. You need that infrastructure, which are 10 to 15 major ports along the route to really make the Arctic container shipping work."

And then others are saying, "Yes, that's true. We won't reform, or we won't revolutionize the main shipping arteries of the world. But the Arctic can serve as a supplemental shipping route."

For now, it's really just destination shipping from the Russian Arctic to markets in Europe and Asia. And then there's a little bit of the Canadian Arctic. The Northwest Passage probably sees 10, 15, 20 transits every year. There's some iron ore that gets exported from the Canadian Arctic to market.

But really, Arctic shipping, what everyone is talking about, is the billions of dollars Russia is investing in infrastructure, and getting oil and gas that we previously couldn't get to, to the markets in Europe and in Asia.

Russia has used Arctic routes in 2022 to still move liquefied natural gas into Europe

FREIGHTWAVES: Is there a certain amount of uproar that happens when a Western European shipping company, like Maersk, engages in Arctic shipping? It

seems like there's a difference in the response from the public depending on who ships on the Arctic.

HUMPERT: Anyone can go onto the Northern Sea Route. All you need is to get a permit from the Northern Sea Administration. I mean, that door is wide open. It's not that hard to do. You need some icebreaker escort.

What's interesting to look at is, how is Europe behaving in terms of sanctions? [2022] saw a record level of Russian Arctic LNG flowing from the Russian Arctic into the EU.

While on one hand, you stopped the import of pipeline gas, now they're receiving record levels of LNG. That comes from the Arctic and uses Arctic shipping.

So, Arctic shipping definitely ties into the geopolitics of what's going on right now. I think a lot of companies decided that it's not worth it, the optics or the environmental risk to ship in the Arctic. By and large, it's Russian LNG and oil. There's a couple of bulk carriers, just like large items that need to go into the Arctic or come out of the Arctic.

But 99% of Arctic shipping is really there to support Russian oil and gas development, or the export of those resources.

It's not easy to ship in the Arctic, especially when it is dark 24 hours a day in the winter

HUMPERT: There's been very few transit voyages where someone is like, "OK, I need to get something from point A in Europe to point B in Asia." It will take a few months a year where that voyage into the Arctic might make economic sense. But, at the same time, it requires a lot of logistics. A lot of planning, ice pilots and special certification for the crew. You need to abide by the Polar Code. That brings a host of challenges with it that the crew needs to be certified, and you need to have a special ship, or ice class. You can't dump your wastewater.

Shipping in the Arctic is still, it's not the Mediterranean. It's not the Atlantic. It's still very challenging, especially in the winter, when it's 24-hour darkness. It is still very specialized shipping.

It's also a very pristine environment. A few hundred ships a year represent a significant challenge, and danger to the Arctic environment.

That's why things like the Polar Code have been put in place to make sure that there are some safety mechanisms; vessels are specifically built and certified for operating in ice and ice-infested waters in the Arctic.

The Polar Code is serious business … but it has some loopholes

FREIGHTWAVES: What are some of the specifications of the Polar Code? What are some of the most challenging or maybe surprising factors that comes along with shipping in the Arctic as an ocean carrier?

HUMPERT: The Polar Code was established under the International Maritime Organization. And it requires ice pilots on board. You need to have specific crew training, specific survival gear. You need to have ice classes. That's more based on domestic Russian certification.

For the Northern Sea Route, there are different categories, depending on if the ice conditions are light, medium or heavy. You need to have either a specific ice class for the vessel, or you need to have an icebreaker escort you through ice conditions that you are not allowed to navigate independently.

Of course, there's politics as well. There have been instances in the last few years where vessels that are not supposed to be where they are, in terms of ice conditions, are navigating by themselves, because the Russians turn a blind eye to that. There have been instances now where vessels don't abide by the Russian rules, and they should have a higher ice classification.

The question is, how much of that is because ice conditions are really getting easier and easier because of climate change? Or is it Russians ignoring the rules for economic expediency, and want to push along oil and gas exports?

60% of Russia's Arctic fuel goes to Europe, and the other chunk goes to Asia

FREIGHTWAVES: And right now, where is Russia shipping on the Northern Sea Route? Are they exporting only to China? Are they still exporting to Europe? What does that look like right now?

HUMPERT: We have a number of oil and gas projects in the Arctic. The biggest one is Yamal LNG on the Yamal Peninsula, by the Russian company Novatek. They export about 20 million tons of LNG every year.

Some of that flows to Europe, and some of that flows to Asia. This year it's probably 60% Europe, 40% Asia. In terms of Asia, most of that goes to China. In previous years, a bit more went to Japan.

In terms of Europe, a lot of it goes to France, Spain, Portugal, Belgium, countries that actually previously had not really received any Russian gas. Now they are importing Russian LNG.

There is the Novy Port/Arctic Gate by Gazprom Neft. That is also oil that flows to Europe.

Now there's going to be a big new terminal called Vostok Oil, which was announced a few months ago. It's on the Gydan Peninsula. The forecasts say that that'll be 25 million tons by 2025, and then a hundred million tons by 2030.

There is a lot of volume of the oil already being transported around the Northern Sea. In the 1980s, ’90s and 2000s, that would be between 2 and 4 million tons of cargo that would flow along the Northern Sea Route. Now we’re around 32, 33 million tons. All that increase has come in the last four or five years. The forecasts are 80 to 100 million tons by the end of the decade. So, we’re still looking at a threefold increase in terms of tonnage between LNG and oil.

Arctic oil production is replacing other resources for Russia

FREIGHTWAVES: It seems like Arctic shipping has been pretty important for Russia’s energy industry, and really making them even more of an energy exporter than previously.

HUMPERT: Probably not *more*. They have to replace other capacity. There’s a lot of oil and gas resources in other parts of Russia that have been producing for many decades, and they’re running out. A lot of future oil and gas resources lie in the Russian Arctic. If you look at the US Geological Survey study that everyone cites from 2009, which looked at oil and gas resources across the entire Arctic, 80% of those resources are located in the Russian Arctic. [AUTHOR’S NOTE: For those who are not familiar with this particular survey, it’s pretty interesting. It estimates that 30% of the world’s undiscovered gas and 13% of its undiscovered oil is in the Arctic.]

For lack of a better term, Russia is the gas station. The future of that gas station definitely lies in the Arctic, and Russia wants to make sure it keeps exporting oil and gas.

Previously it couldn’t get to those oil and gas resources, because it was frozen, and building pipelines in the tundra is very technically challenging and expensive. But now they have a shipping route, and they have the technology, and they can get to the oil and gas that previously was inaccessible.

That’s where Arctic shipping comes in for Russia being really important. The combination of climate change, oil and gas resources, and the Northern Sea Route opens a whole new logistics chain for Russia.

China and Russia are becoming closer than ever, thanks to the Arctic!

FREIGHTWAVES: And how does Arctic shipping strengthen the relationship between Russia and China?

HUMPERT: Well, China is a big investor in Russian Arctic energy projects. They are the recipient of a lot of LNG that flows into China. This year, China is receiving about 25, 30% of the LNG produced at Yamal LNG.

They have a lot of long-term 20-year, 30-year projects. [China is] gobbling up all the LNG being produced anywhere around the world. The Arctic is no exception there. China is really focused on long-term energy security, and receiving all the LNG that they can. That’s the same for the Russian Arctic.

A lot of people focus on the Northern Sea as a potential shipping, export, container shipping route for China. That's really theoretical. There's still too much ice. It's not reliable enough. For China, really, the benefit of the Northern Sea Route and its connection with Russia is the receipt of LNG and oil.

Russia is now the largest oil provider for China, ahead of Saudi Arabia. It's a lot closer to go from the Russian Arctic to China than it is to go from Saudi Arabia through the Strait of Malacca and Singapore and the South China Sea.

Apparently Western Europeans do not care about the optics of receiving fuel that might endanger the Arctic (even before Russia's war)

FREIGHTWAVES: At what point is it bad optics for, say, Europe to be importing energy that was moved on through Arctic shipping? Even before the Ukraine war.

HUMPERT: Well, I mean, I don't particularly think that sovereign countries really cared about that. Germany clearly didn't care about being super energy reliant on Russia. I think for some individual companies it probably played a role. I mean, there have been companies that said they would not invest in oil projects in the Arctic. But, by and large, it was a lot of the big majors. I mean, Siemens, Linde, Total, Bakers.

All the major companies that work in oil and gas, either construction or servicing, or the production of oil and gas, were all involved to various degrees. Exxon was in the Russian Arctic, because a lot of oil and gas resources are there.

Now with sanctions, most of them or all of them have actually exited those projects. Russia right now is struggling to replace some of the technology and some of the financing that they lost over the last 10 months with new partners. They've looked to the Middle East. They've looked to the UAE. China has stepped up. They're trying to build turbines and gas concentrators, and all the high-tech stuff that is required in the liquefaction of natural gas. They are looking to build it domestically.

From an environmental perspective, there were not too many qualms on the part of companies. And now with the sanctions, it's just a general, "We can't really do business with Russia anymore." You've got to cut the cord and get out of there, and most companies did.

It is always the interesting facet of this, that previously France and Spain and Portugal and Belgium did not really receive any Russian gas, because there is no pipeline from Russia that goes to France, or from Russia to Spain. It was more Germany and the Eastern European countries.

But now, France and Spain and Portugal and Belgium are importing significant amounts of LNG, which they previously did not.

I now have FOMOOA: Fear Of Missing Out On Arctic

FREIGHTWAVES: It's interesting looking at this Arctic shore as a key part of Russia's quest for maybe not global dominance, but still being important on the global stage. I feel like I don't often think of the Arctic shore as part of any country's coastline. But given the fact that ice caps are melting …

HUMPERT: You make a very good point. I mean, the Arctic plays a completely different role in the national identity and the economic importance in the psyche of Russian people. I think maybe the only other country with that is the Scandinavian countries.

But if you ask someone in the U.S. in Alabama about the Arctic, they don't know what you're talking about, because Alaska is 500,000 people, and contributes less than 1% to the GDP of the U.S. Oil supply has been declining. You have cheaper oil and gas available in the Lower 48. There is really not that much of a need to build icebreakers. Russia has a fleet of a dozen nuclear icebreakers. The U.S. has one conventional icebreaker, and another half one that's always broken.

The economic importance is a lot less. I mean, if you take Alaska away tomorrow, the U.S. is going to be fine. Well, you take away the Russian Arctic, Russia's not going to be fine. It generates 20% of its GDP above the Arctic Circle. And that number is probably going to just increase.

Russia isn't just investing into Arctic shipping. It's investing into an Arctic military.

HUMPERT: That's why they're investing large amounts of resources into revitalizing old military bases, building new ones, building runways, and building large radar installations. We saw the explosions on the Nord Stream pipelines two months ago, three months ago. That's exactly the kind of thing that Russia wants to not have happen to its own investments in the Arctic.

That's why there is a ring of military bases, and forward-looking radar, and S300 and S400 missiles and aircraft — because they know that the Arctic is hugely important for economic development.

On Tuesday, they approved another billion dollars to build two more nuclear icebreakers. That's just something they do on a Tuesday. While in the U.S., it took 10 years to have the Coast Guard contract one conventional icebreaker that won't be ready before the end of the decade, because it has to be built domestically, and the U.S. hasn't built an icebreaker in 35 years.

So, it's totally understandable why Russia is investing that much money and effort and political capital. Putin is there whenever they launch a new nuclear icebreaker or they open a new military base. Putin is there for the photo op. And it caters to an element of Russia, the Russian empire, Soviet Union, the Arctic, the Arctic frontier. In the U.S., you don't really have that psyche.

In Canada, 10, 15 years ago, Prime Minister Harper did that a little bit. He would become a little bit more nationalistic when he would talk about the Arctic, and how the Arctic is part of the Canadian heritage, and the Arctic is Canada, Canada is the Arctic, and so forth. But again, no one cared. Of course I'm exaggerating here, but you don't have 20% of your GDP being generated above the Arctic Circle.

I mean, purely from a logistical aspect, what Russia has been able to do the last 10 years is really, really impressive. You can be for it, you can be against it. You can say the environmental risk is not worth it. We should stop producing oil and gas, and the geopolitics of it. But just looking at it from the infrastructure in the Arctic, and building the ships needed to get the oil and gas out of there, and doing it all in 24-hour darkness in the Arctic, it's really, really impressive.

It takes a lot of effort, a lot of money. And people were skeptical, but Russia is doing it. And Western Europe and Japan and China are customers of what Russia is producing and exporting in the Arctic.

For the US and Europe, the solution is probably not 'drill, baby, drill'

FREIGHTWAVES: Yeah, it seems like Russia's competitive advantage. Canada and other countries also have access to these resources, theoretically. But Russia's really the one that is investing the most into this, and seeing the most benefit from this massive shoreline that it has with the Arctic Circle.

So, should the U.S. be taking this more seriously? What do you think would be the approach from the U.S. or Europe that counteracts this, or that takes potential Arctic resources more seriously?

HUMPERT: Well, I mean, the question is, should we? Personally, I'm glad we're not drilling for oil and gas in the Arctic.

I think what the U.S. and Europe should do is just generally be more aware that the Arctic is opening up, that it is becoming a navigable ocean. Within 20 or 30 years, for at least six months out of the year, it'll be more like a blue-water navy-type environment. There needs to be more forward-looking and long-term planning to see, how can we operate in the Arctic? How can we contain threats in the Arctic? How can we avoid conflict in the Arctic?

A lot of that is being done now. I think the U.S. has been waking up to it. They reorganized the 3rd Fleet. They've held exercises above the Arctic Circle. There was the Trident Juncture, which was a big NATO exercise a few years ago. They did an exercise off the coast of Iceland maybe two, three years ago. The Coast Guard is getting its new icebreaker, hopefully plural. Supposedly they're going to build six of them. But, that's at least 15 years away.

They are doing things, but it's really hard to find the resources to spend that kind of money when the Arctic is not currently that important to you. When you just finished

two wars in Iraq and Afghanistan, and you have terrorism, and you have whatever else is going on in the world, it's very hard to think about 2030 or 2050.
That's where Russia and also China are better, because they're not a democracy. They don't need to cater to the two-year election cycle and figure out what the immediate priorities are. They're able to think long term.

But, in general, I mean, the Arctic is opening up. For better or worse, there's going to be economic activity. There's hopefully not going to be military conflict in the Arctic. But, the way things are evolving with Russia and future discord or conflict with China, you can never exclude that it could become a theater for conflict.

Cleaning up oil spills in cold water is really hard, which is one of many reasons why Arctic shipping is not great for polar waters

FREIGHTWAVES: Really quickly, or maybe not really quickly, I have one last question. What does Arctic shipping do to its ocean?

HUMPERT: Well, I mean, it's definitely not good.

We already had a bunch of near misses of accidents. We had a couple of cruise ships run aground in the Canadian Archipelago a couple years ago. We had a couple of near misses along the Northern Sea Route, where oil tankers ran into each other, luckily without puncturing the double hull. There was, according to the Russians, no loss of oil or whatever.

But the more activity you have, the risk goes up. The question is loss of limb and life. That's why, under the Arctic Council, we have the search and rescue agreement, because the Arctic is really remote, and we have more and more cruise ships going up there. How do you get 2,000 people off a cruise ship when the entire island that you're visiting has less people than that? There's a lot of concern about the risk to people when they venture out in the Arctic.

Of course, you can look at the Exxon Valdez accident in Alaska 25, 30 years ago and what that did. Cleaning up oil in the Arctic is a lot more challenging than in more temperate water, because the oil becomes a lot more viscous, a lot more thick, like a heavy paste. So, how are you going to get it off, and where are you going to put it?

You're 10,000 miles away from anywhere. The Arctic environment is obviously very pristine and very untouched in a lot of areas. Because it's so cold, if there were to be an oil spill, it would be dissolved a lot less quickly, because everything, in colder temperature, everything happens a lot slower than in more temperate water.

In an ideal world, you'd say, "Yeah, let's leave the Arctic the way it is, and let's not go up there and drill for oil and gas." But that's not happening, obviously. What we can do is put the regulations in place to keep it as safe and as pristine as we can. But it's probably just a matter of time until we will see accidents. The more heavy industrial activity you have, you'll see an accident.

The Arctic is offering a preview of how much our lives could transform thanks to climate change

FREIGHTWAVES: Well, great. Thank you so much again for taking the time to talk with me. Anything else I didn't ask about, or anything else you think would be important? I mean, I'm sure we could talk about this for a long time. But anything else that comes off the top of your head?

HUMPERT: I think we covered it. For me, it's always important, because I read so many headlines about the new Cold War in the Arctic, or the rush for Arctic resources, or the new super shipping highway — it's not like that. There is a lot happening in the Arctic, and it's very, very fascinating.

But we're not on the route for World War III in the Arctic. We're not going to replace the Suez Canal. Russia is not going to become the next Saudi Arabia in the Arctic.

But it doesn't need to be, right? The Arctic previously was frozen, and now it's melting because of climate change. And so, it really is the first region where climate change is altering the economic realities and the landscapes. There's some positives, and there's some negatives. It's never just black and white. Some local, indigenous communities are really struggling. Others may have new economic opportunities because of tourism or shipping or whatever is going on.

The Arctic is offering a preview. It's warming at four times the rate as the rest of the planet. Challenges that are maybe 20 or 30 years away in other parts of the world are already happening in the Arctic today, because the ice is melting. Without climate change, you and I, we wouldn't be having this conversation right now, because the Arctic would still be frozen.

It's this nexus of climate change, economic opportunity and geopolitics. It all comes together in the Arctic, over resources, over shipping, over geopolitics. And it's the first region where climate change is literally altering the map of the world. You can go through the Arctic now for two, three, four months a year in a normal ship. And 20 years ago, that was not possible.

4. Environmental Protection:

"Environmental & Human Impact of the Northern Sea Route & Industrial Development in Russia's Arctic Zone," Diana Dushkova, Tatyana Krasovskaya, and Alexander Evseev, Arctic Yearbook, 2017 [75]
https://arcticyearbook.com/images/yearbook/2017/Scholarly_Papers/15_Environmental_&_Human_Impact.pdf

Abstract:

The consequences of global climate change are mostly portrayed as negative for environment and society, due to the warming in temperatures. However, there are certain benefits from this process as well. One of them is the opening of a polar

shipping route between the Pacific and Atlantic oceans. The Northern Sea Route may cut travel time from Europe to Asia by 40% and allow Russia to export its vast natural resources much faster. Some expert assessments point out that remote northern Russian towns which have been experiencing economic depression in the transition period may turn to economic and social revival. But this process may entail new risks for fragile Arctic ecosystems and traditional nature management by Indigenous populations. Most discussions about Russia's Northern Sea Route focus on shipping traffic, sea ice assessments and expected socio-economic benefits. However, assessments of the impact of further industrialization for the adjacent coastal zone ecosystems and northern residents are still inadequate. Thus, this paper is aimed not only at analyzing the Russian Arctic zone development strategy connected with the Northern Sea Route, but also to highlight the broad spectrum of human and environmental consequences of these activities. Among them, impacts on the economy (national and regional), the environment and population (effects caused by navigation activity and industrialization as well as risks for the coastal ecosystems and Indigenous people) will be assessed.

Current & Relevant Information:

Introduction

Since the beginning of the 21st century the Arctic zone has attracted the attention of many states, including even those which are situated far from it (Germany, China, Japan etc.). This is explained by its richness in natural resources and cultural heritage, and its ecosystem functions and services which are important both at the regional and global scales. Russia is a northern state whose modern economy is closely connected with the economic development of the Russian Arctic zone (Overland, 2010; The Russian Federation Government Program, 2014). Its terrestrial limits were adopted after the President's decree in 2014. According to the Russian Federation's Policy for the Arctic to 2020 (2009), the Arctic zone of the Russian Federation includes a part of the Arctic which involves, in full or in part, the territories of the Republic of Sakha (Yakutia), Murmansk and Arkhangelsk Oblasts (provinces), Krasnoyarsk Kray (provinces), Nenets, Yamal-Nenets and Chukchi autonomous districts, as well as internal maritime waters, territorial sea, exclusive economic zone and continental shelf of the Russian Federation adjoining such territories, areas and islands. The terrestrial area of the Arctic zone is about 3,700,000 km2 and the population is about 2.5 million (encompassing only 2% of the Russian population but more than half of the population of the global Arctic region) (Rosstat, 2015).

The impact of global climate change has certain benefits for the Arctic zone. One of them is the opening of a polar shipping route between the Pacific and Atlantic oceans. Several important documents concerning economic and social development of the Russian Arctic zone were adopted recently (SAP, 2009; State Program..., 2014; Strategic planning…, 2013; The Federal Law…, 2012; The rules…, 2013). Among the priority targets mentioned in those documents are the revival and

development of the Northern Sea Route (NSR), commercial use of the new transport corridor, reconstruction of coastal infrastructure, development of innovation centers etc. (Figure 2) (State Program…, 2014). The NSR is defined as lying between the Kara Gate, at the western entry of the Novaya Zemlya straits, and the Provideniya Bay, at the southern opening of the Bering Strait, for a total length of 5,600 km. There are multiple shipping channels (lines), and the NSR crosses through waters of varying status: internal, territorial and adjacent waters, exclusive economic zone, and the open sea (The Northern Sea Route Administration, 2013). The NSR has been historically important to Russia both economically and socially, especially in the soviet period when it was used solely as a domestic sea route, being closed to international shipping. Today, under conditions of global warming as Arctic ice continues to melt, the NSR is becoming more accessible for navigation (Zalyvsky, 2015). Moreover, Russia has significant interest in transforming the NSR into a strategically important sea line of communication opened to international trade (Strategic planning…, 2013). The NSR may cut travel time from Europe to Asia by 40% and allow Russia to export its vast natural resources much faster (Zalyvsky, 2015). Some expert assessments point out that remote northern Russian towns that have been experiencing economic depression since the period of transition of the 1990s to the early 2000s, may potentially experience economic and social revival (Gordeev et al., 2011; Kuzmenko & Selin, 2014; Zalyvsky, 2015; Zelentsov, 2012). New economic clusters will be formed, including transportation, providing modern infrastructure.

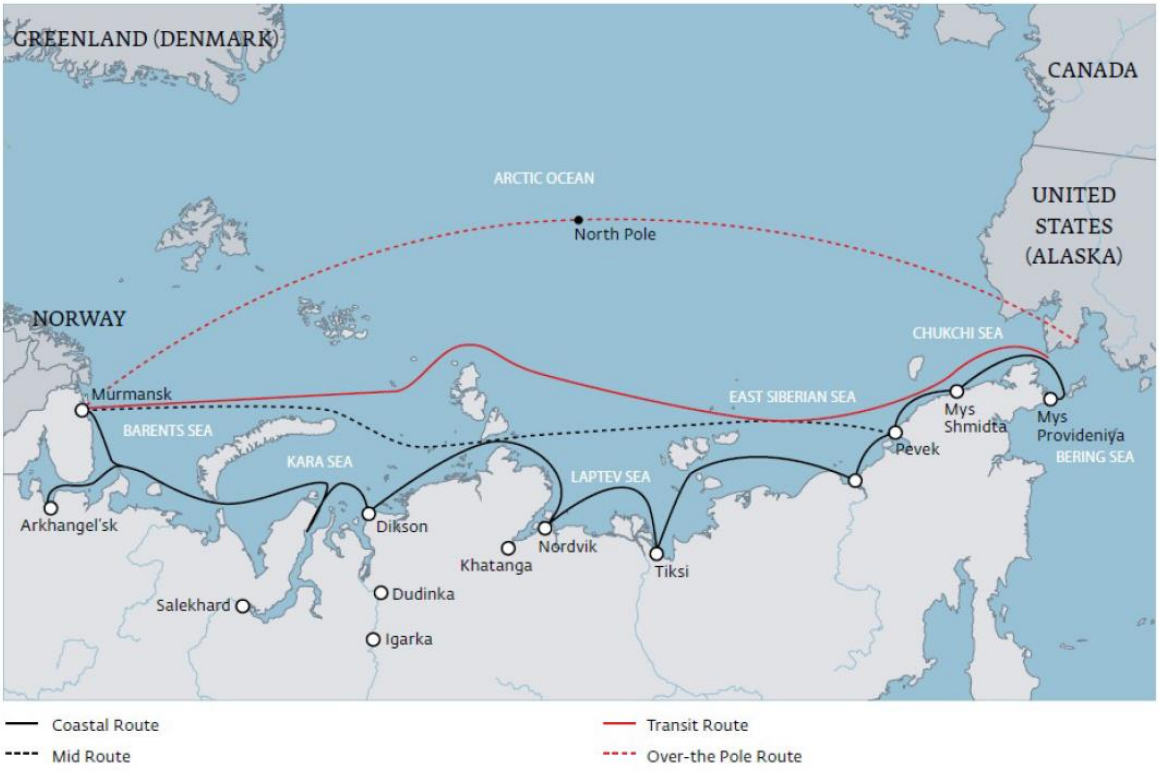


Figure 2. Variants of the Northern Sea Route – shipping corridors (Source: Heininen et al., 2014)

At the same time all of the documents concerning economic and social development of the Russian Arctic zone mentioned above include special sections concerning the connected environmental and social aspects of the economic development plans. They outline activities directed at nature conservation and support for Indigenous populations. In this connection, it is necessary to study the possible negative effects on local populations for monitoring and control.

Most discussions about Russia's NSR focus on shipping traffic and sea ice assessments and expected benefits (Lasserre, 2014; Meng et al., 2017). However, assessments of the impact of further industrialization at the adjacent coastal zone ecosystems and northern residents are still inadequate. Thus, the paper is aimed to analyze the Russian Arctic zone development strategy connected with the NSR and to highlight a broad spectrum of human and environmental consequences of these activities. Among them, the impact on the economy (national and regional) and environment (effects caused by navigation activity and risks for the coastal ecosystems) were assessed. In addition, the consequences that the process of Northern Sea Route development may entail for traditional nature management of Indigenous people as well as human health and well-being of other populations are analyzed.

The study presented in this paper is based on an analysis of Russian Federal and regional documents relevant to the topic. They include social-economic development

programs, Indigenous population support documents, regional reports on environment and human health assessments etc. (e.g., Russian Federation's Policy for the Arctic to 2020 (2009), State Program "Social-Economic Development of the Arctic Zone of the Russian Federation up to 2020").

Conclusions

The activization of national and international interests in the Northern Sea Route occurred due to modern geopolitical processes and economic developments of the Arctic zone in the Russian Federation and worldwide. According to our analysis, the NSR renovation presents both benefits and problems in the coastal zone. Benefits are connected with the economic development of the Russian Arctic, an increase in international trade, the appearances of new employment opportunities for local populations, new technologies, etc. The integration of regional ports and towns within the NSR to the economic development of the Arctic, of course, will be essential for optimism and business promotion, the civic engagement of business and the local populations, and the formation of alternate public opinions about these remote territories (Zalyvsky, 2015). However, its development may also cause some negative impacts such as environmental degradation due to regular oil spills, deterioration of living conditions of local populations (i.e., local landowners, disruption of the traditional land use of the Indigenous population), increase security dilemmas and accelerate climate change (Heininen et al., 2014). New strategic development plans of the NSR's development demonstrate awareness of these potential problems and outline general approaches to mitigate them. That is why the study of these problems is urgently needed now, in order to elaborate practical measures. Of special importance among them are detailed assessments of the adaptive capacity of traditional land users and the accumulated traditional knowledge for dealing with environmental risks, especially to loss of traditional culture and social identification. Based on the analysis of current state economic and political interests, one may conclude that Russia is open and willing for cooperation with foreign partners that can contribute to exploiting Arctic natural resources, developing sea routes and solving the numerous socioeconomic and environmental problems of the region (Heininen et al., 2014). One of them is appealing to the administration of the NSR as the main state supervisor and the subject of Arctic shipping organizations to ensure the rational use of the NSR, and provide for the ecological safety of the environment and local Arctic communities (Zalyvsky, 2015).

"Russia might lower environmental standards in Arctic," Atle Staalesen, The Barents Observer, 6 April 2023 [76]
https://thebarentsobserver.com/en/2023/04/russia-might-lower-environmental-standards-arctic#:~:text=The%20country's%20Arctic%20Strategy%20from,the%20importance%20of%20international%20cooperation.

Overview:

Two new government documents downplay climate change and environmental protection and instead highlight "national interests" and “efficient development of natural resources.”

Current & Relevant Information:

The country that covers the lion’s share of the world’s Arctic territories has for decades developed large and invasive industrial projects in the most pristine part of the planet. Big oil and gas projects have been built along its icy coast, mining and metallurgy plants erected on its tundra and industrial infrastructure developed across its vast and vulnerable Arctic lands and waters.

Nevertheless, environmental protection and climate change was accentuated in key government policy papers. The country’s Arctic Strategy from 2020 highlighted the importance of “environmental protection and efficient development of natural resources with compliance of high ecological standards.”

Likewise, the document stressed the importance of international cooperation. “Good-neighborly relations with Arctic countries must be strengthened and international interaction developed in the study of global climate change,” the document read. It also specifically mentioned the Arctic Council and the Barents Euro-Arctic Council as bodies of international cooperation in the region.

Many of the same ambitions are highlighted in the Russian foreign policy strategy from 2016. The document accentuates the importance of expanding international cooperation with the aim to “strengthen environmental security and counter global climate change.” It highlights the “joint interests of the world community” and cooperation with all countries for the benefit of the current and future generations.

However, following its attack on Ukraine and the subsequent sanctions and stand-off with the West, Russia is redefining its foreign policy course, and also its course on the Arctic and Arctic environment.

A newly amended version of the country’s Arctic Policy downplays the role of international bodies of cooperation. It instead, it highlights that international cooperation must be based on “national interest.”

Likewise, in the new version of the Russian Foreign Policy Concept, the policymakers warn against a “politicization” of international climate change efforts and underlines that adaptation to climate change must be conducted “based on the interests of current and future Russian generations.”

It also argues that international efforts aimed at environmental protection and climate change are driven by an aim to promote “dishonest competition and interfere in the internal affairs of other countries,” as well as to “limit the sovereignty of other countries with regards to their natural resources.”

The two new documents leave little doubt that Russia does no longer intends to be obliged by international regulations in the management of its Arctic and rather move ahead exclusively based on national interests.

The documents no longer highlight the importance of environmental protection based on high ecological standards, but rather based on “the interests of a stable development in the Arctic.”

Likewise, the foreign policy document stresses that “every country have the right to independently choose its preferred mechanisms and ways to protect environment and adjust to climate change.”

The downplay of environmental protection in the policy papers comes as Russia is about to complete its presidency of the Arctic Council. The rotating chair of the international organization that has environment and climate as its top priorities will in May this year be handed over to Norway.

Russia has already been suspended from the club and will hardly be back around the table with Arctic neighbors any time soon. In a recent conference on melting permafrost, Foreign Minister Sergei Lavrov underlined that his diplomats will continue to help domestic researchers team up with international partners. But he admitted that it has become complicated because of “certain unfriendly countries.”

Among Lavrov’s new Arctic friends and partners are likely to be China and India.

“Why the Arctic - and Russia's Role in It - Matters,” Viktoria Waldenfels and Margaret Williams, Belfer Center, 23 February 2024 [77]
https://www.belfercenter.org/publication/why-arctic-and-russias-role-it-matters

Overview:

On February 14, the study group met for the first time. Arctic Initiative Senior Fellow Margaret Williams provided general background on the Arctic, including the region's environment, biological variability, natural resources, peoples, and connection to the global climate. Guest speaker, Arctic Initiative Senior Fellow Jennifer Spence, gave an overview of Arctic governance before and after Russia’s invasion of Ukraine on February 24, 2022. The following post summarizes key learnings.

Current & Relevant Information:

The Arctic may seem distant and disconnected from the lives of many people. However, this region plays a crucial role in the functioning of our planet and deserves our attention and care. Here are several compelling reasons why we should all care about the Arctic.

1. The Arctic is home to unique and important ecosystems and wildlife.

Of the five countries with the most extensive wilderness areas, three of them are located in the Arctic region. These vast expanses of still-intact landscapes are home

to unique ecosystems and wildlife found nowhere else on Earth. From majestic polar bears stalking the ice floes to caribou traversing the tundra for thousands of miles, the Arctic still provides large expanses of undisturbed territory which offer wildlife the freedom to roam. Cold-water corals thrive in the frigid waters, providing vital habitat for marine life. Preserving the Arctic's biological variability is essential for maintaining ecological balance and resilience in the face of environmental challenges. Among all of the Arctic nations, Russia has the oldest and largest system of strictly protected areas, known as *zapovedniks*.

The Arctic supports varied and abundant populations of wildlife and experiences extreme seasonality. Spring blooms of algae in the Arctic Ocean support a rich food chain. The region’s unique climate pattern drives the remarkable migrations of various species, including birds and marine mammals. Millions of birds flock to the Arctic each year from every continent to breed and raise their young. In Alaska and Kamchatka, Russia, salmon migrate from their natal rivers, to the oceans and years later, return to their spawning grounds, sustaining both terrestrial and aquatic ecosystems.

2. Arctic Indigenous communities’ varied cultures, lifestyles, and livelihoods continue to rely on the health of the land and sea.

Four million people live above the Arctic Circle today, approximately ten percent of whom are Indigenous. Varied cultures, languages, traditions and cultures are found throughout the circumpolar region. Indigenous peoples have lived in the Arctic for thousands of years and still maintain deep connections to the land and sea, and depend on the health of Arctic ecosystems. Supporting Indigenous rights and ensuring the continuation of sustainable practices are essential for safeguarding the planet’s natural and cultural heritage.

In the Arctic Council, Indigenous peoples are represented through six permanent participants: the Russian Association for Indigenous Peoples of the North (RAIPON), the Inuit Circumpolar Council, Aleut International Association, Gwich’in Council International, Arctic Athabaskan Council, and the Saami Council. The recognition of the primacy of leadership and engagement of Indigenous organizations is a unique characteristic of this intergovernmental forum.

3. The Arctic is an epicenter of climate change.

The Arctic is experiencing the most rapid warming on the planet. The melting of Arctic sea ice contributes to changes in wildlife behavior and distribution, weather patterns, and disruptions to global climate systems. Rising temperatures cause permafrost to thaw and release carbon dioxide and methane, both potent greenhouse gasses, further exacerbating climate change. Russia encompasses half of the northern hemisphere’s permafrost region. The consequences of Arctic warming extend far beyond the region, affecting weather patterns, ecosystems, and communities at lower latitudes across the globe.

4. The Arctic is rich in economic resources, including fishing, fossil fuels and minerals, and maritime transport routes.

As the Arctic sea ice melts due to climate change, new shipping routes are opening up, transforming parts of the region into a strategic corridor for maritime transport. The Northern Sea Route across the Arctic coast of Russia and through the Bering Strait offers shorter transit times between major shipping hubs in Europe and Asia, reducing costs. However, increased maritime activity also poses risks of increased underwater noise, collisions with wildlife and small watercraft, oil spills and other sources of pollution. All of these factors represent additional threats to ecosystems and indigenous livelihoods that are already feeling the impacts of climate change. These new developments highlight the need for responsible stewardship and international cooperation.

Resource extraction, particularly oil and gas, has long been a contentious issue in the Arctic region due to its potential environmental impacts and geopolitical implications. The Arctic is believed to hold significant reserves of oil and natural gas, both of which are major targets for exploration and development by energy companies in Russia. Chinese investment has accelerated infrastructure development and maritime traffic along this Northern Sea Route. Concerns about the potential for oil spills, habitat destruction, and disruption to Indigenous communities have led to calls for caution and stringent regulatory oversight in Arctic resource extraction.

Commercial fisheries are part of the economic activity in the Arctic. For example, the Bering Sea pollock stock shared by Russia and the United States, and the Barents Sea cod fishery shared between Russia and Norway, are billion-dollar industries. Other fish stocks support local economies and the process of harvesting and preparing fish is central to some Indigenous communities. Arctic fisheries provide food security for millions of people worldwide. However, the exploitation of Arctic resources must be carefully managed to prevent overfishing and environmental degradation.

5. The Arctic can serve as a model peaceful governance for other regions.

The establishment of a peace park in the Bering Strait, proposed by former U.S. President George H.W. Bush and Soviet leader Mikhail Gorbachev, emphasizes the early roots of international cooperation and environmental protection in the region. By designating the Arctic as a sanctuary for peace and conservation, Gorbachev envisioned that the two great powers could work together to preserve its unique natural heritage and mitigate the impacts of climate change. Although the geopolitical situation has changed dramatically since that presidential proclamation, the Bering Strait remains a place of shared cultural and natural heritage. The increased industrialization of the Arctic, coupled with climate change, makes this special marine waterway more vulnerable than ever to environmental damage.

The Arctic Council is the primary intergovernmental forum established in 1996 to promote cooperation and coordination among Arctic states and indigenous peoples in environmental protection and sustainable development. Its members include the eight Arctic states: Canada, Denmark (including Greenland and the Faroe Islands), Finland, Iceland, Norway, Russia, Sweden, and the United States. The council's unique structure includes six Permanent Participants, representing indigenous peoples from across the Arctic region. Observers to the Council include NGOs and numerous non-Arctic states. The Arctic Council addresses environmental protection and sustainable development through working groups focused on climate change monitoring and assessment; flora and fauna; pollution prevention, and sustainable development. The Council operates on the principles of consensus-based decision-making and non-binding cooperation, fostering dialogue and partnerships to address the unique challenges and opportunities facing the Arctic region.

In conclusion, the Arctic is a critical part of our planet's ecosystem, with far-reaching implications for biological variability, climate stability, and global connectivity. Protecting the Arctic requires collective action, from promoting sustainable resource management to supporting indigenous rights and fostering international cooperation. By caring for the Arctic, we can ensure a sustainable future for generations to come.

"Industrial pollution in the Russian Arctic is an environmental nightmare: A list of the dirtiest places," Bellona, 21 November 2023 [78]
https://bellona.org/news/industrial-pollution/2023-11-industrial-pollution-in-the-russian-arctic-is-an-environmental-nightmare-a-list-of-the-dirtiest-companies

Overview:

Several large industries have been operating in the Russian Arctic for decades — many of them dating back to Soviet times — and are having an unprecedentedly destructive impact on the region's environment. The environmental problems associated with their work in many cases have not been resolved, despite various initiatives to reduce emissions and eliminate accumulated damage.

Current & Relevant Information:

Several large industries have been operating in the Russian Arctic for decades — many of them dating back to Soviet times — and are having an unprecedentedly destructive impact on the region's environment. The environmental problems associated with their work in many cases have not been resolved, despite various initiatives to reduce emissions and eliminate accumulated damage.

Against this background, over the past few years, the Arctic zone of Russia (AZRF) has been experiencing a new industrial boom. Industrial projects are being implemented, primarily in the field of natural resource extracion, some of which, due to their scale and enormous capacity, are proudly called megaprojects in Russian government documents.

The Northern Sea Route (NSR) is under development and is the main transport artery via which these megaproject enterprises will operate and export their products. Freight traffic along the NSR is planned to increase from the current 34 million tons per year to 150 and even 216.45 million tons per year in 2030.

On the whole, this concerns the production of oil, liquefied natural gas (LNG) and non-ferrous metals. By 2035, coal production and transportation volumes should also increase sharply. International sanctions have not yet significantly affected the scale of this activity.

This, in turn, raises concerns that — given current policies of the Russian state in the Arctic that have failed to address environmental problems for decades — the implementation of new large-scale projects for its industrial development could lead to the emergence of new environmental hot spots in one of the world's most vulnerable regions.

In this article we address the current state of the four most problematic industrial clusters in the Russian Arctic from an environmental point of view: the Norilsk Nickel sites in Norilsk and the Murmansk region, as well as mining operations in Vorkuta and the Usinsk region of the Komi Republic, which in 1994 experienced the world's worst land-based oil spill.

These industries present a bleak example of the consequences we can expect from the commissioning of new mining and processing facilities if Russian environmental policy does not undergo fundamental changes.

Norilsk

Norilsk is a city beyond the Arctic Circle in the Krasnoyarsk region. It finds its origins in the discovery of the Norilsk copper-nickel ore deposit in 1910-20. In 1935, the construction of the city-forming enterprise, the Norilsk Mining and Metallurgical Combine and the village attached to it, began with the labor of Gulag prisoners. In 1953, Norilsk was elevated to the status of a cit. A powerful impetus for its development was the discovery in 1960 of two more large deposits of copper-nickel ores — the Talnakh and Oktyabrsky deposits.

Since 1989, the Norilsk Mining and Metallurgical Combine, as a Polar Branch, became part of Norilsk Nickel joint stock company. Now the plant produces about 85% of Russian nickel and cobalt, about 70% of copper and more than 95% of platinum group metals, as well as silver, selenium, tellurium, and sulfur. At the same time, throughout its history it has been a powerful source of negative impacts for the environment.

Norilsk, Russia. Credit: allaboutravelling.com

Atmospheric emissions

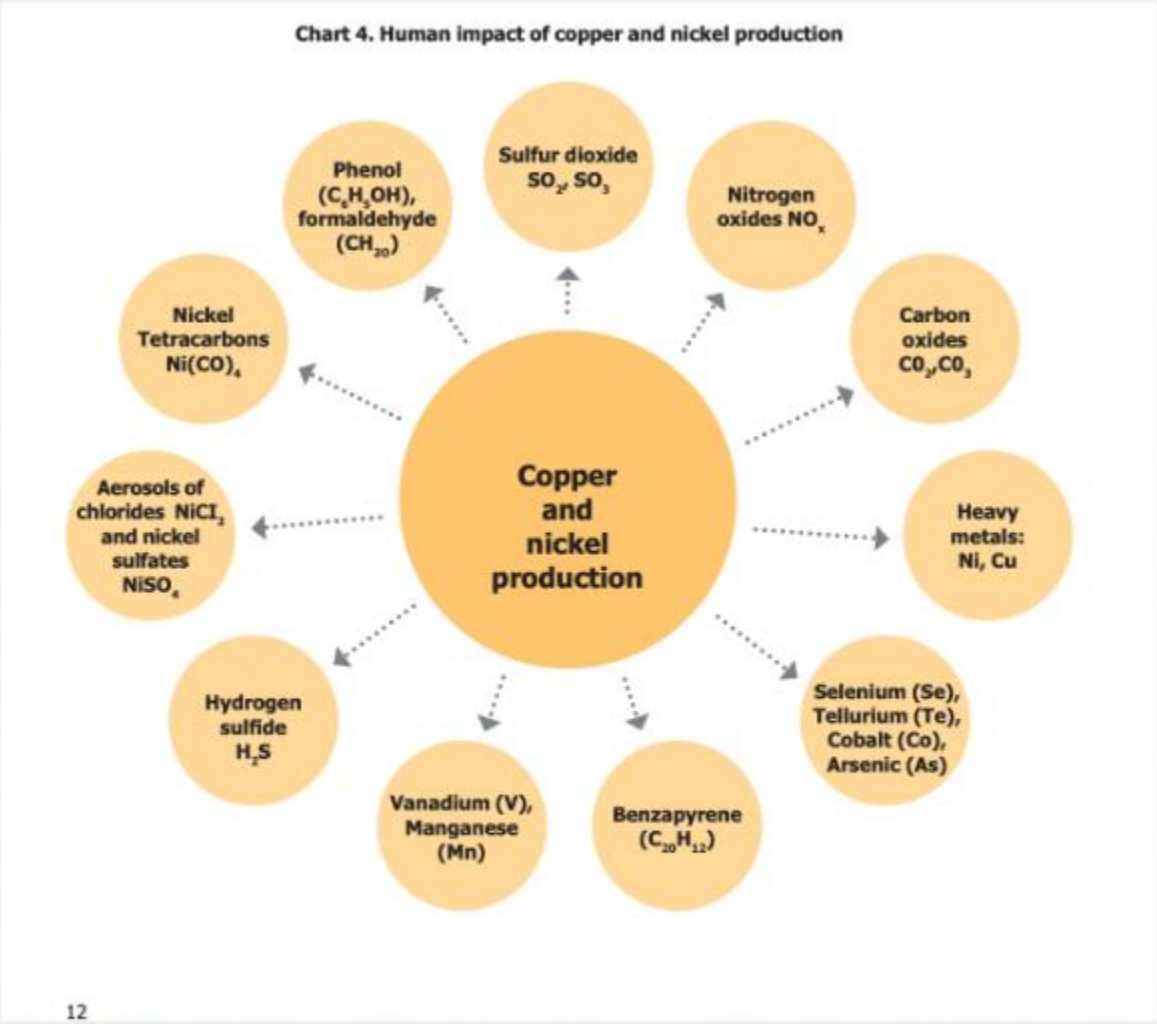
In the spring, Rosprirodnadzor, Russia's environmental oversight agency, published statistics on air pollution in Russia for 2022. Norilsk took first place among the country's cities with its emissions of 1,787,000 tons of pollutants into the air, or 10.5% of atmospheric emissions from all stationary sources in the Russian Federation.

According to a Norilsk Nickel report, 1,779,000 tons of emissions were produced by numerous industrial sites at the company's Polar Division, the vast majority of them being sulfur dioxide, or SO2. According to Rosprirodnadzor, SO2 emissions in Norilsk in 2022 were 1,765,000 tons. Greenpeace emphasizes that the Polar Branch is the world's largest man-made source of sulfur dioxide pollution.

SO2 is a substance of hazard class 3, according to Russia's classification system. It persists in the atmosphere from several hours to several days. Its presence in the atmosphere can lead to the formation of other sulfur compounds, which are also harmful to human health, as well as plants and animals.

Among other things, high concentrations of SO2 causes acid rain — as well as fog, snow, hail and other types of precipitation — which burns vegetation and acidifies the soil, which in turn degrades vegetation.

Of the remaining emissions from the Polar Division, heavy metals have the most negative impact on the environment. Specifically, these are nickel and copper, as well as cobalt, arsenic, etc.



From: "Norilsk Nickel: The Soviet Legacy of Industrial Pollution," by Bellona, 2010.

Liquid waste

Wastewater from non-ferrous metallurgy also leads to acidification of water bodies. In 2022, these discharges at Norilsk Nickel enterprises amounted to 168 million tons, most of which came from the Polar Division.

In addition, liquid waste can enter the environment during accidental spills. The largest such spill at Norilsk Nickel enterprises occurred on May 29, 2020 on the territory of CHPP-3 in Norilsk. As a result, about 20,000 tons of oil products ended up in the Bezymianny stream and the Daldykan and Ambarnaya rivers. The latter

flows into the large lake Pyasino, connected to the Kara Sea. Rosprirodnadzor estimated the damage from this accident at 147.8 billion rubles.

Four years earlier, in 2016, another major spill occurred in Norilsk, albeit on a smaller scale. Contaminated water from the tailings pond of the Nadezhda Metallurgical Plant, owned by the Polar Division, ended up in the Daldykan River. Norilsk Nickel first denied the the accident, admitting to it only a week later.

The Ambarnaya River after a diesel oil spill. Credit: ilya_torgonskyi

Lunar landscapes

As a consequence of the industrial activities of the Polar Branch, man-made wastelands, often called lunar landscapes in the media, have become the norm in the vicinity of Norilsk.

Specialists from the Central Siberian Botanical Garden (CSBS, Novosibirsk) determined that the variability of plant communities in the Norilsk industrial region is 70-80% less than in unpolluted areas of the forest-tundra.

However, according to another study conducted by an international group of scientists from six countries, including Russia, and published in 2020 in the journal Ecology Letters, since the 1960s, when there was a sharp increase in industrial production in Norilsk, about 24 thousand square meters — equivalent to about 3,400 football fields — of boreal forest were destroyed thanks to associated emissions

Not surprisingly, the Polar Branch of Norilsk Nickel was included in the list of enterprises that cause the greatest harm to the environment, compiled in April 2018 by the Ministry of Natural Resources of the Russian Federation, which placed the enterprise in the highest hazard class. According to a 2012 study by the Blacksmith Institute (later renamed Pure Earth), Norilsk was included in the top 10 most polluted places on the planet in 2012.

“Within a radius of 30 kilometers from the city there is not a single living piece of grass or shrub,” said the organization’s founder, Richard Fuller, on the inclusion of Norilsk in the rating. “[Heavy metal] contamination was detected more than 60 kilometers [from the city].”

Emission reduction programs

At the same time, Norilsk Nickel regularly announces the implementation of environmental programs at its production facilities. Thus, in 2017, a program was launched to reduce harmful emissions at all the company’s industrial sites. Emssiosn were to decrease by 75% by 2023 compared to the 2015 level. In 2018, the company announced the imminent launch of another program, as a result of which sulfur dioxide emissions from the Polar Division were to be reduced by 45% by 2023 and by 90% by 2025, also compared to 2015 levels. It was planned to spend about $6 billion on both programs.

“My dream is that Norilsk will become not only a metallurgical, but also a tourist center,” said company president Vladimir Potanin at the time.

However, at the moment, the difference in emissions of the entire Norilsk Nickel between 2022 and the starting year of 2015, when they amounted to 2,063,500 tons, is 244,500 tons — that is less than 12%. As for the program to reduce sulfur dioxide emissions at the Polar Division, the so-called. Sulfur program — it started only recently, on October 25, 2023.

Norilsk Nickel in the Murmansk region

Correspondingly, at the second large industrial site of Norilsk Nickel, the Kola MMC in the Murmansk region, it was still possible to significantly reduce emissions — from 117,000 tons in 2018 to 16,000 tons in 2022. The vast majority of these emissions also consists of sulfur dioxide. However, due to their insignificance compared to the Polar Division, this did not affect the overall statistics of Norilsk Nickel. But this does not mean that the Kola MMC is harmless to the environment.

The Kola MMC spralws two production sites. These are “Pechenganikel” in the village of Nikel and the city of Zapolyarny in the north-west of the region and “Severonikel” in Monchegorsk, 100 km south of Murmansk. In relation to all three settlements of its presence, the company is a city-forming enterprise.

The production facilities of the Kola MMC belong to Pechenganikel and are located in a 25-kilometer strip between the village of Nikel and the city of Zapolyarny. The largest of them is the Severny mine. In addition to that, there is another mine and two quarries. Pechenganikel also includes processing plants, the most famous of which until recently was the smelting shop in the village of Nikel, which was closed in 2020. The plant mines sulfide copper-nickel ores, enriches them and carries out metallurgical processing into matte, an intermediate product, from which nickel, copper, sulfuric acid, and cobalt can then be obtained.

The enterprise in Monchegorsk processes imported high-grade matte. The main products are copper concentrate, nickel anodes, nickel tube furnace powder and sulfuric acid.

The village of Nikel in the Murmansk Region before the closure of the smelter. Credit: Nik Gaffney

Atmospheric emissions

The total peak of emissions from both enterprises occurred in the 80s of the last century, when Pechenganikel alone emitted about 400,000 tons of sulfur dioxide per year into the atmosphere. This led to mass protests by residents of the Norwegian commune of Sør-Varanger, from where the village of Nikel is 30 km in a straight line.

With a general decline in production in the 1990s, emissions from Pechenganikel also decreased and in 2000-2010 stabilized within the range of 100,000-160,000 tons of pollutants per year. However, even then, sulfur dioxide emissions from the site were five to eight times higher than the total SO2 emissions from all sources in Norway, and Pechenganickel continued to be the largest air polluter in the border

commune of Sør-Varanger. Other toxic substances released from the site include heavy metals such as cadmium, arsenic and lead.

The latest reduction in emissions from the Kola MMC is also largely due to the closure of production. If from 2018 to 2020 the company's emissions decreased from 117 to 83 thousand tons, then in 2021 after the closure of the smelting shop in the village of Nikel on December 23, 2020 and the metallurgical shop in Monchegorsk in March 2021, they sharply decreased to 20,000 tons.

In Monchegorsk, the main pollutants emitted into the atmosphere are also sulfur dioxide, nickel and copper.

Manmade wastelands and 'extremely dirty' rivers

As in the case of Pechenganickel and the Polar Division, a man-made wasteland has formed and is expanding around the production of Severonickel. Forests in the Monchegorsk region are completely or partially burned as far away as 40 km south of the plant along the Priimandrovskaya Plain, and the soil is poisoned with heavy metals.

A similar situation is observed with water sources. Despite the closure of the smelter in Nikel, the Kola MMC, according to Roshydromet, Russia's meteorological agency, is still one of the two main polluters in the Pechenga River basin. At the same time, the level of pollution of the Hauki-lampi-joki river in the Pechenga basin in 2022 increased from the level of "dirty" to "extremely dirty" due to the high content of nickel and manganese compounds within the range of 17-28 and 7-13 times the maximum permissible concentrations.

According to Russian legislation, this maximum concentration limit equates to the maximum concentration of chemical elements and their compounds in the environment that does not cause pathological changes or diseases in the human body when exposed to everyday life for a long time. At the same time, the state of plants and animals may be affected by concentrations significantly below the MPC.

In addition, in the Pechenga basin, excess concentrations of copper, mercury, zinc and sulfates are recorded. The content of cresyl dithiophosphate (used in the beneficiation of non-ferrous metal ores) in recent years has reached up to 3-6 MPC.

The water of the Nyuduay River in Monchegorsk from 2017 to 2022 is also assessed by Roshydromet as "dirty". The main pollutants: nickel and copper compounds, the average annual concentrations of which in the long-term plan varied within the range of 21-54 MPC and 49-96 MPC, and the maximum concentrations were at the level of 31-124 and 93-299 MPC, respectively. There was also an excess of the maximum permissible concentration for the content of compounds of iron, mercury, manganese and sulfates.

Vorkuta

Vorkuta is located 150 km north of the Arctic Circle and 180 km from the coast of the Arctic Ocean. The city owes its appearance to the Pechora coal basin. Coal mining began here in 1931. This was done by the labor of Gulag prisoners. The city itself was founded in 1936.

A whole scattering of mines and settlements appeared around it, the most distant of which is the now-shutteredHalmer-Yu, located approximately 90 km along the highway from the city. All of them are administratively part of the Vorkuta urban district with an area of 24.2 thousand sq. km.

Now there are four coal mines, including the world's first coal mine beyond the Arctic Circle, Yunyaginsky. At the beginning of the 1990s, there were 13 operating mines.

The Vorkuta urban district is a single-industry town. All operating mines and open-pit mines belong to the city-forming enterprise, the Vorkutaugol joint stock company, the largest mining enterprise in the Russian Federation. Since December 2021, it has been part of Russian Energy Group LLC. In addition, Vorkutaugol includes a central processing plant for the production of coal concentrate, a mechanical plant, a transport enterprise and a number of other production facilities.

Industrial wastelands near Monchegorsk. Poteryaev Sergey / Shutterstock.com

Methane emissions

The list of enterprises of hazard class 1, published by the Ministry of Natural Resources and Environment in 2018, included all 5 mines in the Vorkuta region operating at that time, as well as the CHPP-2 power plant.

However, one of these mines, Severnaya, was closed and flooded back in 2016 after two accidents with the release and explosion of methane, which led to the death of 36 people. One of the city's main air pollutants, CHPP-2, whose high emissions were caused by the combustion of coal, was switched to gas in 2021, as was the entire city's energy system.

Despite this, Vorkuta, based on the results of 2022, took 8th place in the list of Russian cities with the most polluted air with total emissions of 168 thousand tons.

The vast majority of them — 151 thousand tons — are hydrocarbons without volatile organic compounds. According to this indicator, Vorkuta took fourth place in the country, behind only three districts located in the main coal-mining region of the country — Kuzbass. In one of them, the Mezhdurechensky district, is the largest coal mine in Russia.

These statistics are explained by the fact that coal mining is characterized by high emissions of methane, a greenhouse gas 25 times more potent than carbon dioxide. The Pechora coal basin, which includes the mines of the Vorkuta district (as well as the neighboring urban district of Inta), is characterized by high methane content of coal seams, which varies from 12 to 38 cubic meters per ton. For comparison, the average methane content of coal seams in Poland, the USA and India is 8-13, 7-14 and 5-8 cubic meters per ton respectively.

However, even closed mines produce methane. Thus, in 2019 in the United States, about 200 closed coal mines (with more than 500 operating) produced 8% of the total methane emissions in the country, or about 1% of the total greenhouse gases.

Other negative impacts

Underground coal mining is further characterized by pollution and disturbance of aquifers. Due to the constant pumping of water in mines, it reaches into the deep layers of the rock.

In addition, heavy metals — mercury, lead, cadmium, arsenic, as well as formaldehyde, sulfur, silicon dioxide — enter the atmosphere from mines, coal quarries and dumps. During fires, emissions of volatile organic compounds, soot, ash, carbon dioxide and carbon monoxide and sulfur dioxide are added to this.

Mines, dumps and cuts disrupt the natural profile of the soil, leading to disturbance of the topography and degradation of the vegetation cover. In addition, coal mines easily erode, becoming sources of dust pollution, and are capable of spontaneous combustion.

The Komi government, concerned about the problem of coal dumps around Vorkuta and Inta (another city located in the north of the republic), which began to form in the 1930s, is trying to get them included in the state register of objects of accumulated harm, which may give hope for their reclamation.

Socioeconomic crisis

The adverse environmental consequences of coal mining in the Vorkuta region are accompanied by an acute socio-economic situation. The outflow of residents from here began in 1991, which marked the peak of the city's population of 117,000 residents. As of 2021, the number of residents had decreased to 57,000people. According to Rosstat, Russia's statistics bureau, Vorkuta is the fastest dying city in Russia.

Abandoned houses, neighborhoods and villages have become a kind of calling card of the Vorkuta region. On the territory of Vorkuta alone there are about 100 abandoned buildings, 80 of which are apartment buildings. Thus, they smoothly move into the category of objects of accumulated environmental damage.

Another side of this process is the lack of funds to maintain urban infrastructure in proper condition. So it was in 2022, on New Year's Eve, the city's wastewater treatment plants collapsed. They were put into operation in 1976 and have never been overhauled since then, and the Vorkuta Vodokanal was declared bankrupt back in 2016. As a result, the contents of the sewer were dumped into a nearby stream for almost three weeks, from where it flowed along the Vorkuta and Usa rivers into the Pechora River, which flows into the Barents Sea.

Vorkuta. Nikolai Maniakhin / Shutterstock.com

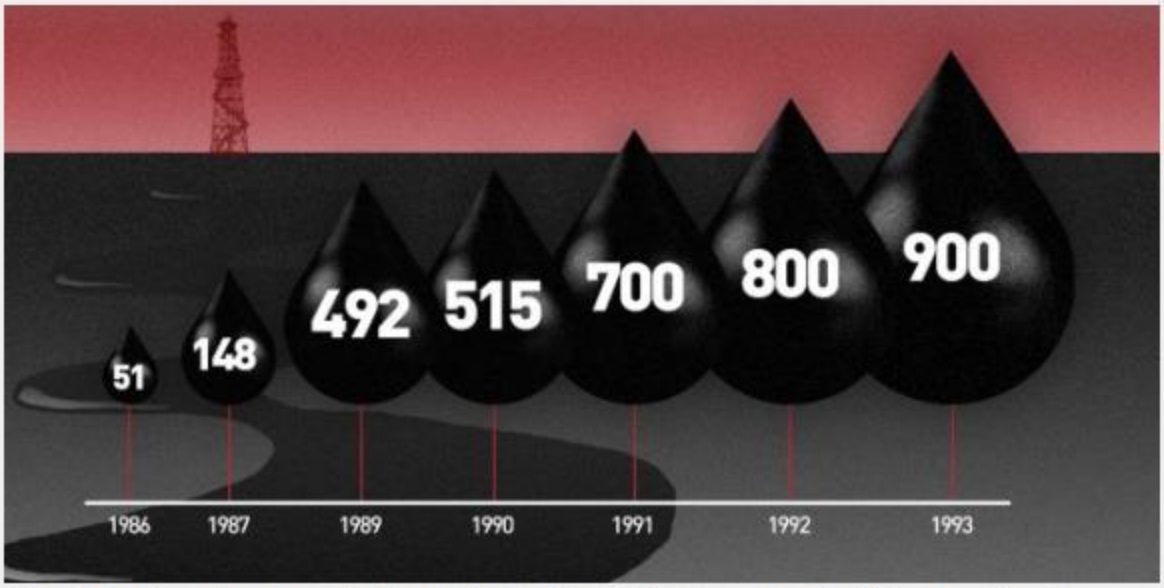
Usinsk district

The Municipal district of Usinsk with an area of 30.5 thousand square kilometers is also located in the northern part of the Komi Republic. About a third of its territory is located beyond the Arctic Circle. However, the entire district is located in the Pechora basin. In July 2020, it was included in the Arctic Zone of the Russian Federation.

The Usinsk region is the center of oil production in the region. About 70% of all oil in the republic is produced here. It was for this reason that it became infamous in 1994, when it suffered the largest onshore oil spill in world history.

Up to 200 thousand tons of oil spilled from the emergency pipeline. To eliminate the consequences of the accident, Russia had to borrow about $100 million from the World Bank. Work to collect oil that reached the Barents Sea and remediate spill sites was completed only in 2010. According to environmentalists, it will take at least 100 years for the territory to regenerate itself.

However, oil spills have occurred here regularly before. They still occur regularly, although there have been none of comparable scale.



Accident volumes at KomiNeft. Credit: The Social Ecological Union

The last major spill was recorded on July 2. A forest area with a total area of over 1.2 thousand hectares was damaged. Oil-containing liquid entered the Kolva River. Cleaning up the consequences of the spill took several weeks.

Controversial statistics

What complicates the situation is that statistics on oil spills vary greatly. Thus, according to the report of the Ministry of Natural Resources of Komi, in 2019, 22 accidents involving environmental pollution with oil products occurred in the republic, and in 2020, 38 accidents occurred, as a result of which 13.6 hectares of land were contaminated.

At the same time, the Federal Ministry of Natural Resources reports 17,000 accidents with oil spills in Russia in 2019 — equaling 46.5 accidents per day. Of these, 10,500 occurred on oil pipelines. These figures are based on statistics collected by the Central Dispatch Directorate of the Fuel and Energy Complex of Russia, which registers such accidents. For comparison, Rosprirodnadzor recorded only 819 oil spills across the country in the same year. In the covid year of 2020, according to the Central Dispatch Department of the Fuel and Energy Complex, the number of oil spills on pipelines was 8,600 thousand.

At the same time, Lukoil, which owns most of the fields in Komi, is the second largest oil spilling company in Russia with 1,508 oil spills in 2018 alone.

Considering the above, as well as the fact that in 2019-2020, 2.5-2.6% of Russian oil was produced in the region, the data from the Komi Ministry of Natural Resources look greatly underestimated.

Oil spills are profitable

According to estimates by the Central Dispatch Department of the Fuel and Energy Complex, 90% of Russia's oil spills at pipelines occur due to pipe corrosion.

"We have an unspoken agreement that oil companies do not invest money in accident prevention, infrastructure, or liquidation of consequences — and thus reduce the cost of oil. And it is becoming more competitive in the international market," says Ivan Ivanov, chairman of the Committee for the Rescue of Pechora, adding that such tactics are beneficial to the state.

In addition to this, information about oil production and its logistics in Russia is becoming harder to obtain. On February 22, 2023, a law was passed allowing the government to suppress any official statistics.

The 2017 oil spill at Usinsk. Credit: semnasem.org

Since March 2023, Rosstat has stopped publishing oil production data in its official report. Also, beginning March 2023, the publication of monthly data on oil production (including gas condensate) in physical terms ceased. The secrecy of such information further limits the assessment of environmental risks in the Russian oil production sector.

In the meantime, according to the Komi Ministry of Natural Resources, more than 90% of the entire oil-contaminated territory of the region is located in the Usinsk region.

According to Roshydromet, in 2022 the water quality of the rivers in the river basin. Pechora continued to be assessed across a wide range from “slightly polluted” to “dirty”. The highest pollution of river water with oil products was recorded in 2022 at the mouth of the Pechora River above the city of Naryan-Mar (i.e. downstream of the main oil production facilities) in the amount of up to 4 MAC. Considering the situation with oil spill statistics, the question arises how different they are from the real state of affairs.

What’s next?

This is not a complete list of long-standing environmental hot spots in the Russian Arctic. Areas of severe pollution and disturbance of the natural environment are located in four more settlements in the Murmansk region, in the area of Arkhangelsk and Severodvinsk in the Arkhangelsk region, around the Deputatsky tin deposit in Yakutia, and so on. In particular, the neighboring Ukhta district in the Komi Republic and a number of territories of the Nenets Autonomous Okrug adjacent to both of them suffer from severe pollution with oil products.

Even though territories with a heavily disturbed and polluted environment are more often found in the European part of the Russian Arctic due to its greater development, they exist in every Arctic region of the country.

At the same time, emissions into the atmosphere from the Arctic sites of Norilsk Nickel and Gazprom alone are greater than those of the entire industry of Alaska and the Arctic zone of Canada combined.

However, the cessation of operation of a particular production does not mean that it automatically ceases to threaten the environment, and that nature around it is instantly restored. Thus, the tailings dump of the Deputatsky deposit, which ceased operation back in 1997, is still a serious source of contamination of nearby areas with iron and manganese.

Several new ones may soon be added to this list of environmental hot spots, including the Syradasaysky coal mine in Taimyr, which began operations this year. It is planned that when it reaches full capacity, 12 million tons of coal per year will be shipped from it.

Another candidate is the Vostok Oil project, unprecedented in terms of oil production volumes, owned by Rosneft — the company that, according to Greenpeace, holds the record for oil spills in Russia (4,253 pipeline spills in 2018). When reaching full capacity, Vostok Oil would ship 100 million tons of oil per year.

Considering the current strategy for the development of the Russian Arctic, based on the exploitation of natural resources, but not on environmental protection, there may be much more such installations.

"How Is Climate Change Shaping Russia's Arctic Policy and Activities?," Pavel Devyatkin, The Arctic Institute, 19 July 2022 [79]
https://www.thearcticinstitute.org/climate-change-shaping-russia-arctic-policy-activities/

Overview:

Climate change is one of the greatest challenges of our century and Russia is one of the most affected countries. This chapter explores how immense transformations of the Arctic environment are reflected in the rhetoric and activities of Russian Arctic policy. The focus is on climate change and its effects on cooperation and diplomacy with other nations, security concerns, energy and natural resources, and shipping and transport.

Current & Relevant Information:

Reports published by the Intergovernmental Panel on Climate Change (IPCC) reveal that climate change is affecting the whole world. Perhaps the most impacted region is the Arctic, generally defined as the polar region in the northernmost part of Earth above the 66°33'N latitude line. The effects of global warming are noticed sooner and with more severe consequences in the Arctic. These include melting sea ice, thawing permafrost, eroding coastlines and extreme weather. A 2022 report from the Russian Federal Service for Hydro-meteorology and Environmental Monitoring found that average temperatures along the Russian Arctic coast have increased by approximately 5 degrees Celsius since 1998. Air temperatures have been rising at a rate three times the global average over the past few decades, in part because of a phenomenon known as Arctic amplification, that is, the loss in sea ice that gives way to a darker, more heat-absorbent ocean.

*The intro is part of a chapter – to be downloaded below – for a report titled, **Environment in Times of War: Climate and Energy Challenges in the Post-Soviet Region**, published by the Institute for International Political Studies (ISPI) and supported by the Italian Ministry of Foreign Affairs. The full report also includes chapters on Russia's "green shift," EU-Russia energy relations, food security, environmental challenges in Central Asia, and desertification.*

"How Tensions With Russia Are Jeopardizing Key Arctic Research," Ed Struzik, Yale Environment 360, 7 February 2023 [80] https://e360.yale.edu/features/russia-ukraine-war-arctic-research

Overview:

With the Ukraine war, international collaborations with Russia on Arctic research and oversight have been strained or broken off. This loss of critical cooperation is

compromising efforts to confront mounting environmental risks in the Arctic, from shrinking sea ice to pollution.

Current & Relevant Information:

Biologist Eric Regehr and his colleagues at the U.S. Fish and Wildlife Service began studying polar bears from the American side of the Chukchi Sea, which stretches from Alaska to Russia, in 2008. But as the region warmed, and the increasingly thin spring sea ice off the Alaskan Coast made helicopter landings unsafe, he knew he would need to find another base from which to survey the health and size of the population.

Russia's remote Wrangel Island made an ideal alternative: a large proportion of Chukchi Sea polar bears take refuge here during the summer, and the Russian Federation had, in 2000, signed an agreement with the U.S. to protect this population. Collaborating in the field, Russian and American scientists were eventually able to confirm, in 2016, that the population of 3,000 animals appeared to be faring well, despite the rapidly receding sea ice and Indigenous subsistence hunting.

After a two-year hiatus because of Covid-19, Regehr, now with the University of Washington, was eager to return to his research on Wrangel. But when Russia invaded Ukraine last February, his plans abruptly changed. So did those of virtually every government, university, institute, and nonprofit scientist working with Russian colleagues. Suddenly, nearly every international collaborative effort with Russia in the Arctic — from polar bear and whale studies to research on commercial fishing, permafrost thaw, sea-ice retreat, peatland ecology, and wildfires — was on hold.

"So much of what we need to know about these impacts is being lost," Regehr says. "It's hard to see how we are going to be able to resume the science without the government and non-government funding [for] us and the Russians, and without us being there to work with their scientists."

The cessation of scientific collaboration comes at a precarious moment for the Arctic. Environmental risks associated with sea ice loss, pollution, and shipping are increasing; Russia and other Arctic states are proposing new boundary lines along the continental shelf that would expand their claims over the Arctic Ocean seabed; and peatlands have been continuing to burn after a year of record-setting wildfires in northern Russia, adding substantially to the nation's greenhouse gas emissions. (Russia is the world's fourth-largest emitter of greenhouse gases.) In addition, China is ramping up its economic interests in the Arctic.

"The Arctic has long been a model for optimism and international cooperation," says Evan T. Bloom, a senior fellow at the Wilson Center, in Washington, D.C., and a former U.S. diplomat engaged for nearly three decades on Arctic governance. "The

disruption of cooperation is necessary because of the [Ukraine] crisis, but there can be no progress on pan-Arctic issues without Russian participation."

Scientists from around the globe have collaborated in the Arctic at least since the Cold War. Three years after the Cuban missile crisis, representatives from the Soviet Union attended the first of many circumpolar meetings on the study of polar bears, which were in serious decline from overhunting. The Soviet Union was a signatory to the International Convention for the Prevention of Pollution from Ships, which went into effect in 1973, and the five-nation Agreement on the Conservation of Polar Bears, which went into force three years later.

The Russians have also been intimately involved with the International Maritime Organization and the World Meteorological Organization, which provides the framework for international cooperation on weather, climate, and water cycles both in the Arctic and around the globe. And they have been a key player in the Arctic Council, the leading intergovernmental forum promoting cooperation among the eight Arctic states. The Council meets regularly — with nations holding two-year rotating chairmanships — to work on issues related to sustainable development and environmental protection.

Now, much of this international collaboration is on pause, partly because the other seven Arctic Council states have suspended communication with Russia. Other projects have halted completely as government scientists and non-governmental organizations in Russia have fled the country, been silenced by Russian authorities, or denied the international funds, expertise, and infrastructure needed to keep their joint work going.

An October 2022 report commissioned by the Finnish Prime Minister's Office summed up the impact of Russian aggression on international Arctic cooperation by acknowledging that, while conditions may change, "one thing is certain, there will be no return to the pre-war reality."

The loss of Russia, both as a collaborator and as an active member of the Arctic Council is profound, notes Bloom, because the country has half the Arctic's land mass, jurisdiction over most of the Arctic Ocean, is home to nearly half of the Arctic's population, and oversees most of the region's economic development.

Prior to the war in Ukraine, scientific and diplomatic progress was being made on many emerging environmental issues, including the Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean. Most of this region is covered by ice year-round, preventing the possibility of a commercial fishery. But as the ice retreats, fishing countries could eventually move in and wipe out fishery stocks, as happened with walleye pollack in an unregulated area of the Bering Sea in the 1980s. The key element of the Central Arctic Ocean agreement, which takes a science-based approach to fisheries management before permitting commercial

fishing, is in peril without Russian scientists verifying data that would form the basis for launching future fisheries.

Some Russians did show up at an international meeting on Central Arctic Ocean fisheries that was held in South Korea in November of 2022, says Bloom, who was invited to speak virtually on the significance of the fisheries agreement at the meeting. “But they were low level and without the authority to make decisions about future scientific participation,” he says. “It’s hard to see things moving forward so long as there is war in Ukraine.”

The war in Ukraine has also put a halt to many climate-based collaborations within Russia. Russia has more peatlands than any other country. Carbon-rich, many of these peatlands have been badly degraded by mining, agriculture, forestry practices, and oil and gas development. And climate change has made them vulnerable to wildfires. In 2010, Russia had 30,000 fires in more than 20 regions. Wildfires and peatland degradation currently account for 5 percent of the country’s greenhouse gas emissions.

Following the catastrophic 2010 fire season, the German government offered money and expertise to help restore the hydrological regimes that keep Russia’s peaty bogs, fens, and marshes wet and their carbon sequestered. But on the day that Russia invaded Ukraine, German institutes — including the Succow Foundation — withdrew their support. Just weeks afterward, a Russian bomb in Ukraine likely triggered a wildfire in the forest around the Chernobyl nuclear site, a focus of another rewetting project.

Tatiana Minayeva, a Wetlands International scientist who previously worked as a researcher and scientific consultant for the Russian government, says much progress had been made in Russian peatland restoration before the war broke out. But with little chance of collaborations resuming, she hopes the remaining funds from international donors will go to other peatland sites in Central and Eastern Europe.

Most of Russia’s peatlands are frozen in permafrost, which is thawing faster than permafrost in other Arctic nations. Much of the data on this thawing come from the Germany-based Alfred Wegener Institute for Polar and Marine Research, which in February of 2022 pulled its support from the Samoylov Island research station in Siberia’s Lena Delta. The station can host up to 20 scientists at a time and has been collecting reliable data on permafrost since 1998.

Following Russia’s invasion of Georgia in 2008 and of Crimea in 2014, the Arctic Council found ways of navigating through crises without pausing communications with Russia. And nonprofit organizations with offices in or close ties to Russia helped keep back channels open when the Arctic Council wasn’t willing or able. Following Russia’s annexation of Crimea, for example, the Pew Charitable Trusts persuaded

Russia, the U.S., Canada, Iceland, and other countries to meet in Shanghai in 2015 to discuss the proposed Central Arctic Fisheries Accord.

But today's situation is quite different, says Clive Tesar, former head of communications and external relations for the World Wildlife Fund's Global Arctic Programme. Many of those back channels are now closed or silenced, and now that the seven other Arctic Council states are no longer communicating with Russia, it's unclear how international collaborations on a non-governmental level can move forward.

The World Wildlife Fund has worked in Russia since the 1980s, when it financed the establishment of the Great Arctic Reserve, the largest nature reserve in Eurasia. Since then, it has been involved in more than 1,000 field projects, many of which led to the protection of more than 200,000 square miles of unique territories, most of them in the Arctic and sub-Arctic regions. "It's going to be very difficult to get things back on track as this war continues," says Tesar.

Evan Bloom, who helped to establish the Arctic Council and served as the lead U.S. negotiator in establishing the world's largest marine protected area, in Antarctica's Ross Sea, has been through many international crises and notes that the future of Arctic research is "not all gloom and doom." Multilateral research on the Arctic will continue in Canada, Alaska, Greenland, and in Ny-Ålesund, on Norway's Spitsbergen Island.

But the Arctic Council is a forum regulated by consensus, Bloom says, and "nothing goes forward there unless all parties agree." If the situation in Ukraine gets worse, "there is ample opportunity for Arctic governance to get much worse."

With Arctic Council communications with Russia suspended indefinitely, the seven other Arctic Council states could continue working on plans that don't involve Russian territory, Bloom says. But that might anger and alienate Russia, preventing its future return.

Even if the Arctic Council did find a way to reconcile with Russia, or to forge a different path forward, it's hard to imagine the research community returning to pre-war normal, because so many of Russia's best Arctic scientists have fled the country or are looking for ways to emigrate.

Some, like Olga Shpak, a Ukrainian marine biologist formerly working with the Russian Academy of Sciences' Severtsov Institute for Ecology and Evolution, gave up her research to volunteer on the front lines to defend her hometown last spring. "My life has changed drastically on February 24th," she said at a meeting of the Council for the Advancement of Science Writing last October. "My priority is not science, not Arctic, not whales, but people."

"Infrastructure in Russia's Arctic: Environmental Impact and Considerations," Thomas E. Rotnem, Wilson Center, November 2021 [81]

https://www.wilsoncenter.org/sites/default/files/media/uploads/documents/KI_211026_Cable%2073_V3.pdf

Overview:

In 2007, Russia signaled its commitment to pursue territorial claims in the Arctic by planting a titanium Russian flag on the polar seabed. Now, Russia is moving well past symbolism and has developed concrete plans and goals for its entire Arctic region. Russia is preparing to pay significant economic and environmental costs to bring these plans into reality.

Current & Relevant Information:

Background

Since 2008, with the publication of the regime's first Arctic strategy, a slew of official documents have been published, each with the intent to delineate Russia's specific plans for its Arctic Zone (AZRF). Russia's Arctic policies center on three main goals: developing oil and gas deposits in the AZRF, extracting mineral and other resources, and creating a transport infrastructure that will shepherd all of these to world markets. As Arctic waters warm perhaps faster than once thought possible, Russia's Northern Sea Route project (NSR) becomes imperative for the latter goal, since it creates a 3,500-mile cargo and container transit corridor between the Pacific and Atlantic oceans.

To support the project, investments in a powerful new class of nuclear-powered icebreakers, underwater laying of fiber optic cables across the entire NSR, new and upgraded search and rescue stations, and map surveying of seabed along the NSR aquifer are all underway. Noteworthy onshore investments are also being made in the "feeder network" of rail, roads, and port facilities that will one day supply the NSR with the cargo and container goods that may help the Kremlin reach its goals of an annual 80 million tons transiting the NSR by 2024.

It is truly startling to consider the number and scale of the projects being developed or planned in the near term in this feeder network. Rosatom's director, Aleksei Likhachev, recently said the NSR feeder network projects are "perhaps developing at an even faster tempo than we had planned."

Yet, these same onshore developments may have serious repercussions for the environment and people living in Russia's sensitive Arctic region. Although only 2.5 million people live in Russia's sparsely populated AZRF, last May's huge diesel spill by a Nornikel subsidiary in the Taimyr Peninsula negatively affected indigenous populations living along the Ambarnaya River. This tragedy may prove to be a cautionary tale for the government as it builds out the NSR feeder system.

Conclusion

Among gargantuan economic plans devised by Soviet or post-Soviet governments, the full development of the Northern Sea Route commercial artery stands out as one of the biggest long-term construction projects ever undertaken. The goal of reaching 80 million tons of cargo delivered along the route by 2024, and 150 million tons by 2030, are regularly trumpeted in official speeches. At the beginning of the Eastern Economic Forum in Vladivostok in September, President Putin announced that regular year-round cargo transportation between St. Petersburg and Vladivostok would start on a test basis in 2022. Yet, container transit between Asia and Europe will perhaps only amount to a quarter of the 80 million target by 2024. To reach Putin's oft-mentioned goal, the remaining cargo will have to come from within Russia's resource-rich northern regions, borne along feeder networks of rail, road, and river transport.

In the last year, a mixture of Russian public and private investment monies have funded the development of new railway, road, and port improvements in the AZRF, as well as new Far North mining, oil, gas, and other projects, ventures that will soon deliver additional cargo to the NSR. What will the impact be upon Russia's environment in the Arctic? Despite an apparent authentic government focus on environmental problems more recently, it is doubtful that a real "greening" of the government's plans in the Arctic will come to pass.

"Russia declares state of emergency after massive oil spill in the Arctic Circle," Holly Ellyatt, CNBC, 4 June 2020 [82] https://www.cnbc.com/2020/06/04/russia-oil-spill-in-the-arctic-circle-state-of-emergency-declared.html

Overview:

President Vladimir Putin has declared a state of emergency in a region within the Arctic Circle in far northern Russia.

The move comes after 20,000 tons of oil leaked into a river from a power plant.

The plant is operated by a subsidiary of Norilsk Nickel, a leading palladium and nickel producer.

Current & Relevant Information:

President Vladimir Putin has declared a state of emergency in a region within the Arctic Circle in far northern Russia after 20,000 tons of oil leaked into a river from a power plant.

The spillage occurred on May 29 [2020] when the "oil products" leaked from a tank in an industrial plant operated by a subsidiary of Norilsk Nickel, the world's largest producer of palladium and one of the largest producers of nickel, platinum and copper.

"The accident took place at the industrial site of the Nadezhdinski Metallurgical Plant, and part of the spilled petrochemicals, a considerable amount actually,

seeped into the Ambarnaya River," Putin said as he discussed the incident with officials on Wednesday, according to the Kremlin. He questioned the measures being taken to clean up the fuel leak that took place near the city of Norilsk in the Krasnoyarsk region, within the Arctic Circle.

Discussing how news of the spill emerged in the televised meeting, Putin was reportedly shocked to discover that local authorities had only learned of the incident from social media two days after it happened, and he admonished the region's governor Alexander Uss, Reuters reported.

"What are we to learn about emergency situations from social networks? Are you alright health wise over there?" Putin said, the news agency reported Wednesday. He then reportedly supported a proposal to declare a national state of emergency in the area as it would assist the clean-up effort.

Norilsk Nickel said on its website that "the accident was caused by a sudden sinking of supporting posts in the basement of the storage tank" and that emergency teams "immediately arrived to the site to start clean up works." It said the spill happened in a remote area and that no local community had been impacted.

"A regional emergency situation has been declared in the city of Norilsk and Taymir region. An emergency response team has been set up chaired by the city mayor of Norilsk," the company said, adding that it was trying to limit damage to the local environment. It said a special team had been brought in to deal with the oil spill.

"In total, Norilsk Nickel has mobilized 250 personnel and 72 equipment items to work on the liquidation. As of June 3, a total of 262 tons of diesel fuel has been collected near HHP-3 (the power plant), a total of 800 cubic meters of contaminated soil has been removed and approximately 80 tons of fuel has been collected from the spill to Ambarnaya river," the company said.

Russia's Investigative Committee has launched a probe into the incident that has "caused pollution and environmental damage," it said on its website. A manager at the site has been detained, it said.

5. Potential Detrimental Impacts:

"Arctic Repercussions of Russia's Invasion: Council on Pause, Research on Ice and Russia Frozen Out," Michael Paul, Stiftung Wissenschaft und Politik, 10 June 2022 [83] https://www.swp-berlin.org/en/publication/arctic-repercussions-of-russias-invasion

Overview:

While Russia remains chair of the Arctic Council until May 2023, the other seven member states have suspended their participation in response to Russia's invasion of Ukraine. The impacts on Moscow are multiple. Politically the move sidelines a policy area where Russia still played a significant role after the collapse of the Soviet

Union. Economically it creates question marks over important Russian Arctic projects and their markets. The interruption of the Council's work also touches the interests of other states such as China and erodes Russia's standing in the region. All Western partners have suspended scientific and research cooperation. While Russia is especially vulnerable to the impacts of climate change in the Arctic, the disruption of climate-related research is ultimately detrimental to all nations. In the military sphere, Finland and Sweden are seeking to join NATO. That outcome would double the length of Russia's border with NATO states, and represents the exact opposite of Moscow's original intention to halt the Alliance's expansion.

Current & Relevant Information:

The work of the Arctic Council has always been based on the fundamental principles of sovereignty, territorial integrity and consensus. In response to Russia's invasion of Ukraine the other seven Arctic states declared that they would not be sending representatives to the Council's meetings in Russia, although they remained convinced of the value of Arctic cooperation. The joint statement issued by Canada, Denmark, Finland, Iceland, Norway, Sweden and the United States **spelled out the implications**: "Our states are temporarily pausing participation in all meetings of the Council and its subsidiary bodies, pending consideration of the necessary modalities that can allow us to continue the Council's important work in view of the current circumstances". In practical terms, all activities of the Council and its working groups are in abeyance. Russia's Arctic ambassador Nikolai Korchunov said that was "**regrettable**" and called in vain for the Arctic to be excluded from "the spill-over effect of any extra-regional events".

Research on ice

The Alliance of Science Organizations in Germany condemned the Russian invasion as "an attack on the elementary values of freedom, democracy and self-determination that form the basis for academic freedom and scientific cooperation". It recommends that "scientific cooperation with state institutions and business entities in Russia should be frozen with immediate effect, Russia should be excluded from all German research funding and all scientific or research-related events should be cancelled. New collaborations should not be initiated at this juncture."

Russian-American polar bear research and the long-term climate data series are veritably **frozen**, as is the decades-old German-Russian scientific collaboration in Siberia. The entire Arctic Zone of the Russian Federation (AZRF) is now out of bounds to Western researchers. They have lost access to important facilities in the Russia Arctic, and in some cases had to end personal relationships going back decades. More than seven thousand Russian researchers and scientific journalists signed a **petition** against the war, understandably fearing that Russia faces years of isolation and ostracization.

The Arctic represented one field where Moscow's international status was unaffected by the collapse of the Soviet Union. Its chairmanship of the Arctic Council could have offered Moscow an opportunity to confirm that role and present its Arctic research successes to a global audience. The first research station on a drifting ice floe was created by Soviet researchers in 1937. Now a modern version is under construction, an 83-metre research platform named *North Pole*. Its trials in autumn 2022 could have been the high point of the Russia chairmanship. Beginning in 2023, the **new platform** is due to drift the Arctic Ocean for up to 24 months at a time with a team of thirty-four researchers on board (plus a crew of fourteen). Russia will use the data it gathers to back its territorial claims in Arctic waters, and the station itself leverages the normative power of the factual: in the Arctic, simple presence is a decisive factor.

Uncertain prospects for the Arctic Zone as a national resource base

As an integral part of the Russian Federation, the AZRF is of great geostrategic and economic importance. **According to Vladimir Putin**, the region holds "a concentration of practically all aspects of national security – military, political, economic, technological, environmental and that of resources".

The Kremlin's sights are set correspondingly high. To date however, as demonstrated in an **SWP Research Paper**, its aspirations are hindered by the heavy bias towards fossil fuels in socio-economic development planning, the reduction of the Northern Sea Route to fuel transport, and the high costs incurred by military measures against fictitious enemies, avoidable environmental disasters and administrative procrastination. Even before the war, a landmark ruling by a Netherland's court in May 2021 had serious implications for Russia. The court ruled that oil giant Shell – and by implication other investors – must do more to reduce climate emissions. Other energy companies and investors have withdrawn completely from Russian projects in response to Putin's war. In the absence of pipelines, shifting energy sales to Asia will require expensive tankers and involves markets that will neither absorb the volumes hitherto delivered to Europe nor bear the high prices Europe pays. In 2021 Russia supplied about 33 billion cubic meters of gas to Asia, while **Europe** imported up to 200 billion cubic meters.

The idea that rising demand in Asia will be the saving of Russian fossil fuel producers remains a **risky bet**. Enormous technical effort and investment will be required to facilitate the extraction and transport of fossil fuels, and to modernize and expand the infrastructure along the Northern Sea Route. Russia possesses neither the financial nor technical means to accomplish that on its own.

In the absence of alternatives, Moscow must rely on Beijing as its strategic backer, technology supplier and investor. The war makes Russia even more dependent on China and strengthens Beijing's role in the AZRF, in the scope of the Belt and Road project, where infrastructure projects are always bound up with geostrategic

objectives. The prospect looms of a war-weakened Russia and its national resource base falling increasingly under Chinese influence. This could bolster China's status as a "near-Arctic state" to a point where the Arctic becomes a real "arena for power and for competition".

A new era in the High North

It is an irony of history that Putin's actions have provoked Finland to apply to join NATO. Even in January 2022 surveys showed just 28 percent in favor and 42 percent against. The mood shifted in March 2022, following the invasion, and by May support exceeded 70 percent. In Sweden too, support for joining NATO grew with the hostilities. Russia's war has produced majorities for membership in both countries. Sweden and Finland presented their applications to NATO Secretary-General Jens Stoltenberg on 18 May 2022.

Putin has said Russia will treat Finland as an "enemy" if it joins NATO, and issued all kinds of threats. Russian nuclear weapons would be stationed in the region, he said, and the Russian Ministry of Defense declared that its forces in the Kaliningrad enclave had simulated the launch of nuclear-capable Iskander missiles. Russia's willingness to take greater risks, its ability to deploy 100,000 soldiers without additional mobilization and "loose talk in Russia about weapons of mass destruction" were the reasons for Helsinki to request to join NATO, Finnish Foreign Minister Pekka Haavisto explained. How else could the country defend itself against the threat of weapons of mass destruction? The Kremlin plainly underestimated the Nordic response to its repeated threats and military aggression – just as it underestimated the resistance of the Ukrainian population and armed forces.

The accession of Finland and Sweden will make NATO the dominant military actor in the Baltic Sea and enhance the defenses of the Baltic states. It will double the length of Russia's border with NATO states, Moscow will lose diplomatic options, and the Russian navy will face growing constraints on its movements as the Baltic Sea becomes dominated by NATO allies. This incisive change in Russia's security situation results from the Kremlin's mistakes and the brutality of the Russian armed forces. But it will demand a wise policy of reserve and vigilance on the part of the NATO states.

The upshot of all this is that a conflict in the Arctic – provoked by events outside the region – can no longer be excluded. Despite the return of a rhetoric of containment and the desire "to see Russia weakened" militarily, as US Secretary of Defense Lloyd Austin put it before visiting Kyiv in April 2022, the NATO states will remain concerned to avoid any international escalation. But the Arctic region will also be part of a robust and networked containment strategy against Russia – and in future China. It is already an area of operations for NATO.

Whether the Arctic can become a region of cooperation again is an open question after Russia's war. If need be, the lowest common denominator would be the kind

of unavoidable cooperation dictated by the region's harsh conditions. Climate change creates new – and non-traditional – security problems for human society and the environment, which offer openings for cooperation. If the associated challenges are to be tackled effectively, cooperation will be indispensable. But any such initiative will face strong headwinds from a new confrontational security policy that threatens to utterly marginalized collaboration in the long term. The Arctic Council's "intermission" is just one expression of this fatal complex.

What now?

The seven states remain members of the Arctic Council. But in the fog of Russia's war it is impossible to predict how long the pause will last, nor the circumstances under which it could be ended. A bilateral agreement would offer a better basis than a militarily "frozen" but unresolved conflict in Ukraine. Nobody can know when the time will be opportune for the Arctic Council to resume its normal functions. "We are focused on making sure that what we do now will not create obstacles to our later returning to normalcy," said Norway's Arctic ambassador **Morten Høglund**. The tricky task of gathering up the pieces and reassembling a viable basis for future cooperation will likely fall to Norway's chairmanship in 2023–25.

Russia accounts for about half the Arctic's population and territory. For that reason alone, cooperation cannot be suspended indefinitely. But which issues could be meaningfully discussed with Moscow – and how, when and with whom? Together with an American colleague, Russian researchers have identified one topic. Their **proposal** for an effective regional governance system for civil nuclear safety in the Arctic builds on the Arctic Military Environmental Cooperation of 1996, which dealt with the radioactive legacy of the Soviet navy (and contributed indirectly to the founding of the Arctic Council). It also takes up one element of the Arctic Council Strategic Plan, which was adopted in 2021 in Reykjavik under the Icelandic chairmanship. Along with rescue operations and cleaning up oil pollution, these are issues whose significance is uncontested among the Arctic states – and in retrospect formed a significant basis for successful cooperation in the Arctic.

But restarting cooperation will not be easy, even if Russia ended the war tomorrow. It will be a long time before the Arctic can become a region of constructive dialogue again.

"Ukraine's Conflict Has Rippled All the Way to the Arctic Circle," Aryn Baker, Time Magazine, 9 March 2022 [84] https://time.com/6156189/russia-ukraine-conflict-risks-arctic-climate/

Overview:

The effects of the conflict in Ukraine have rippled across the globe, sending more than two million refugees fleeing, and driving up gasoline prices in the U.S., heating bills in Europe, the cost of bread in the Middle East, and even the price of potato

chips around the world. But one of the most significant impacts, for the future of global warming at least, is unfolding thousands of miles away in the Arctic, where vital research on carbon emissions just came to a screeching halt.

Current & Relevant Information:

Right as Russia decided to attack Ukraine, a global consortium of permafrost scientists was poised to embark on a multi-year, Arctic-wide monitoring effort that would have helped provide crucial data on how the region is warming. But international uproar and financial sanctions over the unprovoked invasion put an immediate stop to any scientific collaboration with Russian researchers. And while climate scientists agree that the sanctions are necessary, they lament the lost opportunity for vital research in the region—Russia accounts for half the Arctic land mass.

“At least half our work would have been in Russia, and now we can’t do any science there at all,” says Sue Natali, Arctic program director for the Woodwell Climate Research Center in Massachusetts, who now has a couple of pallets worth of methane and carbon monitoring equipment originally destined for Russian research stations lying unused in the back of her research center.

As the conflict progresses, experts worry that eroding political cooperation among Arctic nations could see environmentally-harmful Russian activities in the region go unchecked—further worsening the effects of climate change.

After the Amazon rainforest, the Arctic is the second largest carbon sink in the world, locking approximately 1.5 trillion metric tons of organic carbon—twice as much as Earth’s atmosphere currently holds—under thick layers of frozen soil and ancient plant matter called permafrost. At least for now.

The region is warming four times faster than the rest of the planet. As the Arctic heats up, the permafrost thaws, releasing stores of planet-warming carbon and methane gasses in a continuous feedback loop that threatens to turn the Arctic into a net carbon emitter, instead of a carbon sink, locking the planet on a cataclysmic climate trajectory. The problem with the Arctic’s carbon flux, as the exchange of environmental gasses between the land and the atmosphere is called, is that no one knows when, or under what conditions, that tipping point might occur, because scientists still do not have baseline data on how much carbon the region is absorbing or emitting at any given place or time.

A better understanding of the carbon flux in the Arctic is one of the most important elements of understanding, and predicting, climate change in the world today, says Natali. “This is one of the largest and most vulnerable carbon pools on the planet. The region is warming faster than anywhere else, and there are still so many unknowns.” Having data from the Russian Arctic “is essential” she says. “We cannot just ignore what is happening with permafrost in Russia. It’s a massive blind spot.”

An intensifying conflict in Ukraine, however, could have repercussions in the Arctic that go way beyond the permafrost study.

Last week, seven of the eight Arctic nations—Canada, Denmark, Finland, Iceland, Norway, Sweden, and the United States—censured Russia for its actions in Ukraine, and announced that they would suspend their participation in the Arctic Council, the intergovernmental body that coordinates Arctic policy and cooperation.

The Arctic Council was the brainchild of Soviet Union President Mikhail Gorbachev, who proposed in 1987 to transform the Arctic into a "pole of peace," free from the geopolitical tensions that defined member nations' activities elsewhere in the world. That peace held through the waning days of the Cold War and even when Russia, which is the current head of the Council, annexed Crimea from the Ukrainians in 2014.

While the Council does not directly discuss military security issues, its multiple working groups, which meet several times a year, cover development, exploration, shipping, search and rescue, Indigenous rights, resource extraction, and environmental impact studies across the region. It is unclear when the Council might resume activities, but it's not likely to happen before the summer of 2023, when the rotating chair shifts from the Russian Federation to Norway. Even then, ongoing sanctions could continue to preclude Russian participation, or meetings on Russian territory. That's a long time to go without leadership in a key region.

"Stopping Arctic collaboration in general will have big consequences," says Tero Mustonen, a Finland-based Arctic biological variability expert and advocate for Arctic Indigenous rights. "The Arctic is the most important canary in the climate change coal mine, so anything that takes away from the capacity to monitor, understand, and respond in an orderly way to climate change in the Arctic is a loss for humanity."

Mustonen's Snowchange Cooperative, a consortium of pan-Arctic Indigenous groups, has been participating in the Arctic Council assessments for 20 years. Climate scientists are predicting that the Arctic could start seeing ice-free summers as early as 2035, opening the region up to increased shipping, resource extraction, fishing, and military adventurism. With no mechanism to build new cooperative agreements in place because of the pause in Arctic Council activities, the consequences could be catastrophic for the fragile ecosystem, says Mustonen.

"In a world of dwindling natural resources, the Arctic is the last place where most of those untapped assets—not only minerals, rare earth metals, and timber, but also freshwater and genetic variability that has been lost elsewhere—can be found," Mustonen explained. "If we don't have a friendly mechanism to jointly agree on conservation, research, and development, actions in these areas will lead to a very different climate pathway than the one that could happen if the collaboration was in place."

Meanwhile, the need for regional dialogue is greater than ever. While few military analysts anticipate a hot war in the polar north—not least because forces from Russia's Arctic fleet, nominally based in the Kola Peninsula near Finland, are currently fighting in Ukraine—the potential for miscommunications to escalate into flashpoints is high, particularly if NATO forces end up getting dragged into Ukraine's war.

"I would not put it past [Russian President Vladimir] Putin to now view the Arctic as another avenue for conflict, and one that will allow him to flex his muscles," says Daniel Silverberg, a managing director for the Washington, D.C.-based policy strategy consultancy Capstone, and an adjunct senior fellow for energy, economics, and security at policy organization, the Center For a New American Security. Putin has any number of options at his disposal to inflict pain on the United States and its allies in the Arctic in a way that does not necessarily rise to an act of war, notes Silverberg, but still manages to be deleterious to regional commerce. Russia could use its vast new fleet of icebreakers to make passage across the polar sea routes more difficult for foreign vessels, or fish on the edges of territorial waters, which could hurt domestic fishing industries.

Far more likely, and worrying, says Silverberg, is that without the Arctic Council to hold it accountable, Russia could commit some kind of climate-harming actions in the far north, such as gas flaring which releases planet-warming methane emission, or develop new climate and environment-harming mining activities that would normally be adjudicated by the Council. "For all of this to be taking place at the exact time when we're trying to advance COP26 objectives [to reduce carbon emissions and limit warming to 1.5°C beyond pre-industrial levels] is troubling," says Silverberg. "Obviously, the number one priority is saving human life and stopping the hot conflict, but to the extent climate change is a national security threat, the Arctic is ground zero. We need to be mindful of how this kind of hot conflict ripples into that context."

"Russia's Arctic Policy Poses a Growing Nuclear Threat," Maxim Starchak, Carnegie Russia Eurasia Center, 1 November 2024 [85]
https://carnegieendowment.org/russia-eurasia/politika/2024/10/russia-arctic-nuclear-threat?lang=en

Overview:

Russia's nuclear development of the Arctic continues apace, but with the country cut off from regional cooperation initiatives and foreign funding, many worry it may struggle to respond to a nuclear emergency.

Current & Relevant Information:

The war in Ukraine continues to drain Russia's resources away from critical areas, including nuclear security in the Arctic. Despite this, Moscow remains committed to

the development of this strategic region, and has not stopped building nuclear sites there. In September, Norway detected elevated levels of radioactive Cesium-137 near its Arctic border with Russia. As Russia is no longer cooperating with other nations on nuclear safety in the Arctic, this is unlikely to be the last such report.

Around the same time that Norway reported the surge in radiation levels, Russian Foreign Minister Sergey Lavrov accused NATO of militarizing the Arctic through increasingly frequent crisis response exercises. Yet Russia is guilty of the same. Its new foreign policy concepts and doctrines call the Arctic "a vital area for ensuring our national interests in the global ocean," and Moscow has warned that it will use "any means necessary" to secure its interests there. Those means include the Northern Fleet, whose ships regularly—and conspicuously—traverse the Arctic Ocean, training to counter Western submarines.

Particularly crucial to Russia's plans is its fleet of nuclear submarines, which has become significantly more active in northern waters in the past decade. The fleet consists of twelve strategic nuclear submarines carrying up to 192 nuclear-capable ballistic missiles, twenty-four nuclear submarines armed with cruise missiles, and ten special-purpose nuclear submarines, with another twelve nuclear submarines under construction or nearly ready for commission.

The Arctic is also a testing ground for new nuclear-powered, nuclear-armed weapons—from the Burevestnik cruise missile to the Poseidon torpedo—contributing to both regional tensions and the risk of radiation accidents.

That risk is growing, not only because of Russia's military activities, but also because of its increasing economic activity in the Arctic. Rosatom, the state nuclear company, operates the eight-ship nuclear icebreaker fleet that is key to the Northern Sea Route, along which 36 million tons of cargo were transported in 2023, up from 4 million in 2014. That number is expected to reach 270 million tons in 2035, while the nuclear icebreaker fleet is to expand by seven more vessels.

Rosatom's footprint in the Arctic extends to Russia's two nuclear power plants there: Kola and Bilibino. They do not generate enough energy for the country's Arctic development needs (the region contains trillions of cubic meters of natural gas and billions of tons of oil), for which Rosatom estimates that no fewer than fifteen floating nuclear power plants are required. The company separately plans to build several small modular reactors (SMRs), the first of which should be up and running by 2028.

In the past five years, Russia's development of the Arctic has seen the number of civil and military nuclear reactors in the region increase by 30 percent, from sixty-two to eighty-one. By 2035, it is estimated there may be 118.

In response to growing concerns about nuclear safety, Rosatom has offered reassurances on SMRs' passive safety systems. But environmentalists stress that SMRs are experimental, and therefore high-risk. Of

particular concern is how they will be transported. It has already been reported that ships not designed to transport nuclear materials have been used to do just that, and further nuclear safety violations cannot be ruled out. In addition, a 2022 study found that SMRs produce more radioactive waste than conventional nuclear power plants.

The Arctic's radiation risks are therefore only rising. The situation was far from ideal to begin with, thanks to the region's rich Soviet nuclear inheritance. There are some 18,000 sunken assets that were or remain dangerously radioactive, a thousand of which continue to pose a threat. They include submarines, reactors, and high-level waste. In addition, the Russian Arctic is peppered with facilities for storing nuclear fuel—fresh and spent alike—and refining it.

Ensuring the safety of new nuclear assets and managing the Soviet nuclear inheritance is difficult and expensive, and an endeavor in which Russia used to work closely with foreign partners. It was not uncommon for projects to be 50 percent or even 60 percent foreign funded, and some were wholly financed from abroad. The Bellona Foundation estimates that Russia received some $2.5 billion in international assistance in this area, in addition to all the political, technological, informational, and other support from which it benefited.

Years of international cooperation on nuclear security ended with the invasion of Ukraine. Russia was cut off from foreign funding, not only bilaterally but also through EU and European Bank for Reconstruction and Development programs. Technical assistance dried up as well, precluding the maintenance of foreign equipment and halting the supply of spare parts.

Institutions also stopped working together, with Russia leaving the Barents Euro-Arctic Council and being suspended from the Organization for Economic Cooperation and Development's Nuclear Energy Agency. The European Technical Safety Organisations Network cut ties with Russia's Scientific and Engineering Center for Nuclear and Radiation Safety.

Crucially, it has become more difficult for Russia to respond promptly to nuclear emergencies. The Arctic is marked by extreme weather conditions, huge distances, and poor infrastructure. Notifying partners of a nuclear incident as soon as possible is of the utmost importance, so that complicated interagency and international coordination may commence. Yet Russia is out of the Norwegian-led Arctic and North Atlantic Security and Emergency Preparedness Network and is no longer invited to nuclear incident response exercises, even as an observer.

As the 2000 Kursk submarine disaster made painfully clear, Russia was never inclined to accept outside assistance in nuclear emergencies. However, cooperation with partners was at least theoretically possible. Now, any prospect of a regional agreement on nuclear security in the Arctic establishing a joint emergency response mechanism is as good as dead.

Rosatom admits that Russia being cut off from foreign funding means projects related to nuclear safety in the Arctic will stall. Yet it maintains that they will not be canceled altogether, which would seem plausible given the company's financials.

However, in practice, funding *is* being cut, and the results are clear. Hitherto largely financed by Norway, efforts to remove solid radioactive waste from Andreyeva Bay may be suspended indefinitely, Bellona experts fear.

Rosatom's accounts show that nuclear safety is not a priority. Federal spending on nuclear and radiation safety has steadily been falling since about 2020, and is expected to be cut by a further 1.5 billion rubles between 2024 and 2026. Cuts of 2.3 billion rubles are planned for efforts related to radioactive waste disposal and management and the cleanup of nuclear legacy sites. At the same time, tariffs for the disposal of radioactive waste are to increase by an average of 33 percent by 2027.

The opacity of the Russian state does not help matters. Gone are the days when many projects were implemented with the involvement of NGOs, and Rosatom's disclosures offer so little information as to be useless as a guide to Russia's plans for the cleanup of nuclear legacy sites.

The same concerns extend to Russia's response to nuclear emergencies. Since many sites are operated by the military or considered key to national security, gathering information about incidents is extremely difficult.

Before the war, the prospect of a nuclear accident in the Arctic seemed remote. It was only slightly easier to imagine one involving a nuclear vessel or a floating nuclear power plant. Today, the situation is deteriorating rapidly, as Russia continues to build new nuclear sites while halting the cleanup of nuclear legacy sites. The absence of international assistance and regional cooperation, along with the dwindling attention paid to nuclear safety in the Arctic by the federal authorities, spells further trouble.

That the risks are growing is no concern to Russia, which may in fact see the peril of its development of the Arctic as a feature, not a bug. It could form part of its policy of blackmail, with Russia taking things to the brink to force concessions from the West such as the resumption of financing and technical assistance—irrespective of developments on other fronts.

"Russia's war on Ukraine: Implications for the Arctic," Gabija Leclerc, European Parliament, January 2024 [86]
https://www.europarl.europa.eu/RegData/etudes/BRIE/2024/754604/EPRS_BRI(2024)754604_EN.pdf

Summary:

Russia's brutal war of aggression against Ukraine may not be taking place geographically in the Arctic, but it has already had a plethora of impacts on the circumpolar north, the repercussions of which are likely to spread well beyond the region. First, the war has negatively affected cooperation, as activities with Russia in the framework of regional forums such as the Arctic Council (AC), the Barents Euro-Atlantic Council (BEAC), the Council of the Baltic Sea States (CBSS) and the Northern Dimension have either been significantly scaled down or suspended. The repercussions of curtailed scientific cooperation, which has been a hallmark of Arctic exceptionalism for decades, are feared to be especially serious, in a context where unprecedented climate change necessitates urgent joint circumpolar action. In parallel, Russia's war on Ukraine has had a negative impact on the indigenous peoples of the Arctic, with those living in Russia most affected. With the return of full-blown war to European soil, as well as the implications of climate change, heated geopolitics has also returned to the 'high north'. Russia's aggression has been a catalyst for two Nordic countries – Finland and Sweden – to apply for membership of the North Atlantic Treaty Organization (NATO), reinforcing the Arctic dimension of the alliance. This development is set to strengthen NATO in the region; however, the intensifying hybrid threats and a non-conventional military build-up by Russia are likely to further increase tensions in the Arctic. Russia's isolation and the effects of economic sanctions imposed owing to its military aggression also create room for possible new dynamics and alliances in the region in the context of the changing power balance and China's rising ambitions there. These developments are of great concern for the EU, which – in line with its Arctic policy outlined in successive Commission communications and Council conclusions – has been actively involved in matters relevant to the Arctic. The consequences of scaled-down cooperation on climate change, the environment and livelihoods, and the changes in the security environment and China's ambitions, all touch upon core interests of the EU. Through its resolutions, the European Parliament has been advocating for enhanced protection for the Arctic region, for 'peaceful cooperation while taking into account the new security realities', and for a stronger EU policy in the Arctic that is better adapted to the current geopolitical situation.

Current & Relevant Information:

Introduction

Following decades where the Arctic was a backdrop for geopolitical competition and military build-up between the great powers, the end of the Cold War opened a new chapter in the Arctic region. Through mutually beneficial international governance and trust-building efforts, the 'Arctic 7' (the US, Canada, Denmark, Iceland, Sweden, Finland and Norway) and Russia managed to achieve a relatively high level of cooperation and stability thanks to bilateral cooperation and cooperation in multilateral nonbinding forums such as the Arctic Council.

However, rivalries and tensions, even if managed before Russia's full-scale invasion of Ukraine, never disappeared completely, and have become more prominent over the last 10 to 15 years. This has happened in the context of numerous factors – Russia's military build-up in the Arctic, the race to ensure energy security by Arctic and non-Arctic states, the increasing focus on maritime trade and the significance of the region for space-based technologies, to name a few.

In addition, climate change – which comes not only with enormous ecological and climatic threats, but also with possible economic opportunities – has been the amplifying force in the rise of rivalries and tensions (see box). In particular, as the region holds unexploited natural resources and may offer game-changing Arctic maritime routes in the future, it has strategic importance not only for the Arctic states, but also for some that are further away (e.g. China).

Even though the tensions due to economic and military interests in the Arctic have been rising, the turning point in the region was Russia's invasion of Ukraine in February 2022. Since then, pre-existing tensions in the 'high north' have skyrocketed and regional cooperation has been heavily impacted, with the ramifications likely to be felt not only by local communities nor even solely by the Arctic states, but also possibly by the world as a whole.

Background: Cooperation in the Arctic

The Arctic Ocean and parts of the territories of eight Arctic states – the United States, Russia, Iceland, Norway, Finland, Sweden and the Kingdom of Denmark (through its semi-autonomous entities Greenland1 and the Faroe Islands) – constitute the Arctic region, encompassing the area surrounding the North Pole, north of the Arctic Circle (latitude 66 degrees, 32 minutes north). The Arctic region is home to almost four million people, around 10% of whom are indigenous.

Unlike in Antarctica, where the Antarctic Treaty System regulates international cooperation, cooperation in the Arctic is not governed by a treaty. Instead, the legal regime of Arctic affairs is based on public international law, domestic law, and 'soft law'. Since the end of the Cold War, several intergovernmental forums, regional initiatives and bilateral projects with a focus on Arctic matters have been established. The Arctic Council (AC), Barents Euro-Atlantic Council (BEAC) and Council of the Baltic Sea States (CBSS) – with the last encompassing more than the Arctic region – have been the most prominent intergovernmental cooperation forums. The EU has been participating in different forums either as a member or through its Nordic and other participating Member States, with the aim of promoting its Arctic policy (see below).

For more than 30 years until the Russian invasion of Ukraine on 24 February 2022, through cooperation and mutually beneficial trust-building activities, the region managed to achieve 'Arctic exceptionalism' and the 'high north' was often praised for its 'low tensions'. For instance, in 2013 the AC reiterated the commitment to settle

Arctic disputes in accordance with international law, especially the United Nations Convention on the Law of the Sea (UNCLOS), as reaffirmed by the 2008 Ilulissat Declaration, adopted by five Arctic Ocean coastal states. In 2015, even after the illegal annexation of Crimea by Russia, the Arctic Coast Guard Forum (ACGF) was established as an independent and informal non-treaty based forum for operational cooperation in the maritime domain among all eight Arctic states (however, after Russia's full-scale invasion of Ukraine, the Arctic 7 suspended their participation in the forum).

Arctic Council

The Arctic Council, established by the 1996 Ottawa Declaration, is the leading intergovernmental non-treaty based forum promoting cooperation, coordination and interaction among the eight Arctic states. It focuses on common Arctic issues, in particular on sustainable social and economic development and environmental protection (climate, healthy and resilient ecosystems and a healthy marine environment) in the Arctic. The cooperation requires decisions to be taken by consensus among the eight Arctic states, and explicitly excludes military security matters. To provide for active participation and full consultation with the Arctic indigenous representatives, the AC gives permanent participant status to six indigenous peoples' groups. These groups are: the Aleut International Association (AIA), the Arctic Athabaskan Council (AAC), the Gwich'in Council International (GCI), the Inuit Circumpolar Council (ICC), the Russian Association of Indigenous Peoples of the North (RAIPON), and the Saami Council. The AC also has 38 observers: (a) 13 non-Arctic states, including China; (b) 13 intergovernmental and inter-parliamentary organizations; and (c) 12 non-governmental organizations. They have a right to make statements but have no say in decision-making. The AC's leadership is based on a bi-annual rotating 'chairship' between its member states; the chairship is currently (2023-2025) assumed by Norway. The activities are conducted in six working groups 2 that execute the programs and projects mandated by the AC Ministers, and a stand-alone expert group covering a broad range of issues, as well as task forces (currently, there are no active task forces). While the decisions taken by the A Care not legally binding, on three occasions the Arctic states have negotiated legally binding agreements under its auspices: the Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic ('2011 SAR Agreement'); the Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic ('2013 Oil Spills Agreement'); and the Agreement on Enhancing International Arctic Scientific Cooperation ('2017 Science Cooperation Agreement').

Barents Euro-Atlantic Council (BEAC)

In 1993, to foster sustainable development with the right balance between environmental, economic, indigenous and social aspects and the well-being of inhabitants, and to build trust in the region that historically suffered from military

confrontation, the Kirkenes Declaration launched cooperation in the Barents region on two levels. The first level takes the form of the intergovernmental BEAC, which initially included Denmark, Finland, Iceland, Norway, Sweden and the EU (through the European Commission), as well as Russia. However, following its condemnation and suspension due to its war on Ukraine, Russia announced its decision to withdraw from the forum on 18 September 2023. The second level refers to the interregional Barents Regional Council (BRC). Following Russia's withdrawal from the forum, only eight out of 13 counties or similar sub-national entities forming the BRC remain members. The representatives of the three indigenous peoples – the Sámi, the Nenets and the Vepsians – cooperate in the Working Group of Indigenous Peoples (WGIP), which has an advisory role in both the BEAC and the BRC.

The Council of the Baltic Sea States (CBSS)

The Council of the Baltic Sea States (CBSS) is an intergovernmental political forum for regional cooperation, established in 1992 with the aim of building confidence and relations based on trust. Before Russia's invasion of Ukraine, its highest decision-making body – the Council – consisted of the 11 foreign ministers of the CBSS member states (Denmark, Estonia, Finland, Germany, Iceland, Latvia, Lithuania, Norway, Poland, Sweden and Russia) and a high-level representative of the EU. However, on 3 March 2022 the members of the CBSS suspended Russia from further participation in the Council's activities, following which, on 17 May 2022, Russia withdrew from the CBSS. The CBSS also has 11 observer states: France, Hungary, Italy, the Netherlands, Romania, Slovakia, Spain, Ukraine, the United Kingdom, the US and Belarus (suspended). The work of the CBSS focuses on three streams: (a) Regional identity (culture, higher education, youth); (b) Sustainable & prosperous region (labor, science, sustainable development, sustainable maritime economy); and (c) Safe & secure region (anti-trafficking, child protection, civil security).

The European Union in the Arctic

As per its 2021 joint communication on stronger EU engagement for a peaceful, sustainable and prosperous Arctic, the EU is 'in the Arctic'; since 1995, the EU has been a part of the Arctic through the northernmost regions of Finland and Sweden (Finnish Lapland and Norrbotten respectively). As a geopolitical power, the EU underlines its strategic and day-to-day interests in the region, the EU's focus being on supporting multilateral peaceful cooperation in the Arctic, slowing the effects of climate change and supporting the sustainable development of Arctic regions to the benefit of Arctic communities, including indigenous people. The implementation of the EU's Arctic policy is expected to contribute to the delivery of the targets defined by the EU Green Deal and to meet its geopolitical interests. Besides the consecutive strategy documents published in 2008, 2012, 2016 and, most recently, 2021, the EU's Arctic policy is built upon the principles set out in UNCLOS and the United Nations 2030 Agenda and the Sustainable Development Goals. In 2017, to give the

EU a focal point for Arctic diplomatic outreach, the post of EU Special Envoy 3 for Arctic Matters within the European External Action Service (EEAS), currently occupied by Clara Ganslandt, was created. The EU's Arctic policy is also based on its involvement in the work of the multilateral forums, notably the AC, the BEAC, the CBSS and the Northern Dimension policy 4 framework.

¬ The EU, through the European Commission, as well as Denmark, Finland and Sweden, are full members of the BEAC.

¬ The EU, together with Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland and Sweden, is also a full-fledged member of the CBSS.

¬ Three EU Member States – Finland, Sweden and Denmark – are full-fledged members of the Council. Six other non-Arctic Member States – Germany, Poland, France, the Netherlands, Spain and Italy – are observers. However, the EU itself is neither a member nor an official observer at the AC, even though it submitted its application in 2008, and which it has been reiterating, including in 2021. The EU's application for observer status has been opposed by Canada and Russia for different reasons. Canada's opposition is based on economic reasons, particularly because of the EU's ban on imported seal products, 5 which, according to Canada, threatened to impact Canadian Inuits' livelihoods, while Russia's opposition was grounded on geopolitical reasons. The attitudes towards the EU's involvement have been diverging even within the Union itself, with the Nordic Member States preferring targeted involvement of the EU in selected areas such as research programs and their funding, fisheries, and sustainable regional development. In 2013, the AC Declaration, adopted in Kiruna, stipulated that, until a final decision on whether to accept the EU as an observer, the EU may observe Council proceedings. Therefore, the EU continues to focus on coordination with its relevant Member States and is committed to engaging in AC working groups, task forces and expert groups. In particular, the Commission's experts provide support and bring in data and information generated by the EU through its own programs, such as Horizon Europe, or policy-oriented research. The EU is also engaged in the AC's work through OSPAR (the Convention for the Protection of the Marine Environment of the North-East Atlantic, which is itself an observer to the AC), to which the EU is a contracting party.

The EU also engages in other contexts focusing on Arctic matters or relevant to the Arctic, for example in the implementation of the agreement to prevent unregulated fisheries in the Central Arctic Ocean, or in the global processes on the Treaty of the High Seas (BBNJ).

The EU, which has developed international networks on Arctic research as a diplomatic tool, is a major supporter and funder of Arctic research through its Horizon program and the Atlantic Arctic Lighthouse of the Mission 'Restore our Ocean and Waters', as well as through bilateral Science and Technology

Cooperation Agreements with Canada, Russia (suspended) and the US. Since 2016, the EU has supported science diplomacy via the Arctic Science Ministerial meetings. In parallel, the EU supports regional development in the Arctic through Interreg programs. During the 2021- 2027 programming period, the EU is continuing to provide funding for various initiatives to encourage cross-border cooperation, increase competitiveness and support indigenous peoples in the Arctic region (including the Sami) especially through the Interreg cooperation programs Aurora and The Northern Periphery & Arctic. The projects carried out under these programs aim to contribute to the twin transitions and sustainable social, ecological and economic development in the European Arctic.

Position of the European Parliament

The European Parliament has been supporting stronger involvement of the EU in the Arctic. Its resolution of 6 October 2022 on momentum for the ocean and strengthening ocean governance and biological variability (2022/2836(RSP)) expressed support for the EU's application for observer status on the AC. In line with the Parliament's stance on environmental protection and climate change, this resolution also called for enhanced protection for the Arctic region, including a prohibition on oil exploration and, 'as soon as possible, on gas exploration'.

Just days before Russia's full-scale invasion of Ukraine, the Parliament adopted a resolution, on 17 February 2022, on the implementation of the common foreign and security policy (2021/2182(INI)), in which it expressed concerns 'about the potential spillover of global security issues into the Arctic'. The resolution also relayed concerns over 'the progressive and substantial Russian military build-up in the Arctic as well as the impact of far-reaching Chinese development and infrastructure initiatives and ambitions in the region'. It noted that 'the Arctic plays a crucial role in the security of Europe as [a] whole' and underlined that 'the EU must have a clear vision of its role in security matters in the Arctic along with good cooperation with NATO'.

In its resolution of 18 January 2023 on the implementation of the CSDP (2022/2050(INI)), the Parliament underlined the need to include the EU's Arctic policy in the CSDP. This resolution also stressed 'that the Arctic must remain an area of peaceful cooperation, while taking into account the new security realities resulting from the Russian war of aggression against Ukraine', and warned against increased militarization of the region. In its recommendation of 15 March 2023 for a stronger EU in the world (2021/2065(INI)), the Parliament suggested adapting the organization of the EEAS and the corresponding Commission services to new strategic needs arising from the new geopolitical context without further delay, with special attention to the Arctic.

Implications of Ukraine war for Arctic governance Following Russia's invasion of Ukraine in February 2022, circumpolar cooperation – whose implementation (in

terms of practical aspects such as cross-border research and events) was already being challenged by the outbreak of the coronavirus pandemic – became a silent collateral victim of this aggression. According to several sources, while the rationale behind the curtailing of scientific cooperation with Russia in the light of its unjustified aggression is clear and fully warranted, this step comes with major negative consequences for Arctic governance, Arctic science, and Arctic indigenous peoples.

In particular, Russia's invasion of Ukraine has had ramifications for the Arctic governance structures, given that other participating members refused to be used for messaging that business was going on as usual. On 3 March 2022, citing violations of the forum's foundational principles, including sovereignty and territorial integrity under international law, seven member states of the AC, the most prominent Arctic intergovernmental forum, decided to 'pause temporarily' all activities involving Russia, which at that time held the chairship of the Council (2021-2023). However, in June 2022 some of the projects were resumed without Russia's – the largest Arctic state's – participation, leading many to question the future of the forum. Since the successful transfer of the AC's chairship from Russia to Norway in May 2023, the first tangible steps have been taken towards the resumption of work that includes Russia. In September 2023, the eight AC countries approved the guidelines allowing the working groups, where the Council's main work is carried out, to resume their activities based on a written procedure of communication.

While work is being gradually resumed at the technical level, the extent of the cooperation is nevertheless compromised – the speed and the level of work is lower than normal and, importantly, the meetings at political level will most likely continue to be impossible in the current situation. At the same time, experts argue that even the resumption of work at the technical level avoids dark scenarios (such as Russia's withdrawal from the forum and establishing its own, or an AC that is paralyzed for years to come) developed by numerous scholars. The three legally binding agreements negotiated under the auspices of the AC– the 2011 SAR Agreement, the 2013 Oil Spills Agreement and the 2017 Science Cooperation Agreement – remain legally binding for all eight Arctic states. However, as most of the operational work necessary for implementing these agreements was conducted in the AC working groups, the 'wait-and-see' attitude has been obstructing their efficient application.

The BEAC and the CBSS followed suit. On 3 March 2022, the members of the CBSS suspended Russia from participation in the Council's activities, following which, on 17 May 2022, Russia withdrew from the forum altogether. In parallel, after the BEAC issued a statement condemning and suspending activities involving Russia in March 2023, Russia announced its decision to leave the forum on 18 September 2023. On 8 March 2023, the EU, Iceland and Norway condemned 'in the strongest possible terms' Russia's military aggression and halted 'until further notice' all activities of the Northern Dimension policy that involve Russia and Belarus(which

was an observer). With cooperation in the main Arctic forums being compromised, it could be expected that the countries in the region would increasingly focus on certain international organizations to which Russia is a party, such as the International Maritime Organization (IMO), International Hydrographic Organization (IHO) and World Meteorological Organization (WMO).

Arctic scientific cooperation

Scientific cooperation has been a hallmark of 'Arctic exceptionalism' for decades. However, since Russia's invasion of Ukraine in February 2022 most of the avenues for scientific and research cooperation between the Arctic 7 and Russia have been curtailed. In particular, Russia's scientists and researchers have been excluded from nearly all Arctic scientific cooperation with their Western partners. This exclusion happened through the suspension of activities involving Russia in the framework of the Northern Dimension policy, the BEAC and the CBSS, following which Russia withdrew from the two latter forums. Activities involving Russia within the AC have also been suspended, with a gradual and limited resumption of scientific cooperation at the working group level since the beginning of September 2023, when the guidelines on the partial resumption of the forum's activities were approved. However, while the resumption of activities at the technical level allow for the continuation of existing and the start of new scientific projects, the cumbersome procedure of written communication and practicalities, as well as the lack of impetus at the political level, remain problematic.

In parallel, the Arctic 7 have each imposed sanctions regimes that include the restrictions in the field of scientific cooperation with Russia. For instance, Denmark, Sweden and Finland have enforced the EU sanctions against Russia, which encompassed the suspension of all scientific collaboration with Russian entities and the withdrawal of research funding from activities that involve Russia.

Furthermore, while Western scientists in some instances could collaborate with their Russian counterparts on a personal level in their own capacity, Academia Europaea Bergen's Special Report explains that such collaboration has become very difficult due to the real and perceived obstacles on both sides. In the West, many researchers have become cautious when connecting and collaborating with Russian counterparts, as they often feared being perceived as supporting (even if inadvertently) the Russian government, which indeed funds most of the country's research. The fear of negative reactions or even repercussions from colleagues and especially funding bodies, together with a fear of security threats, has had a chilling effect on Western-Russian scientific cooperation in the Arctic. In addition, the practical and logistical difficulties arising from the sanctions regimes often lead to difficulties or even make Western-Russian cooperation impossible. Russian scientists also risk repercussions if their government deems that they are working too closely with the West.

Impacts of disrupted Arctic scientific cooperation

As Russia geographically spans nearly half the Arctic region, representing the largest Arctic nation with the longest polar coastline and control over large areas of the Arctic Ocean, access to research in its territory is essential to gain a circumpolar perspective. In other words, without collaboration with Russian scientists and access to Russian territory, Arctic research data will be incomplete. This is problematic, as numerous large scientific projects and consortia, such as INTERACT, an Arctic network of research stations funded by Horizon 2020, rely heavily on data flowing across borders and between institutions; therefore, the halt in scientific cooperation risks unravelling knowledge infrastructures that have been built over decades. The curtailed cooperation in the Arctic disrupts not only data collection, data processing and data sharing, but also burdens peer-to-peer feedback, scientific dialogue, and the publication and dissemination processes, where Russian counterparts are involved.

Several analysts point out that it is possible, to some extent, to reduce the data gaps due to the absence of Russia's participation in scientific and monitoring activities. For instance, researchers could reach out to other colleagues across the world, including those in non-Arctic states, to try to close knowledge gaps. In addition, several planned projects, which initially included Russia, could be rerouted. This has already been happening since the invasion, with the example of US-Russia joint permafrost and carbon projects that were originally intended for the Russian Arctic but have since been rerouted to Alaska and northern Canada. Nevertheless, the Arctic without its Russian part is often not sufficient to provide a comprehensive understanding of the crucial issues, such as research on the permafrost environment. In parallel, the reduced Western-Russian cooperation is expected to result in stronger involvement of non-Arctic countries, such as China or India, in scientific projects in the Russian Arctic. This may create polarization of the Arctic into two parts and cause the fragmentation of Arctic research. In this context, many fear that the scientific collaboration dynamics in the region may have reverberating consequences worldwide, especially for climate change and environmental issues.

Arctic indigenous peoples

Russia's war on Ukraine has had a negative impact on the indigenous peoples of the Arctic, with the indigenous peoples living in Russia arguably being affected the most. During its war of aggression, Russia's disregard for its international legal obligations has been growing. For instance, its exclusion and subsequent withdrawal from the legally binding European Convention on Human Rights (ECHR) in September 2022 is a particularly worrying development, as it means that citizens, including indigenous peoples in the Russian Arctic, have one channel less to protect their human rights. On top of this, Russia has reinforced measures against persons and organizations who do not support the Russian regime, thereby leaving its citizens, including indigenous people, with the dilemma of supporting the war or facing

punitive measures. The Russian Association of the Indigenous Peoples of the North (RAIPON), which is a permanent member of the AC, has been rubber-stamping Russian government policy since 2013, with the alternative representatives (mostly in exile) being discredited and intimidated, and the last remaining free indigenous peoples' media facing forced shutdowns. The indigenous communities have reportedly also been misled and used for Russian propaganda purposes in support of the war effort. Moreover, there have been increased concerns over the recruitment of indigenous peoples to fight in Ukraine. While reliable data is not available, human rights activists fear that a 'disproportionate number of Indigenous people are dying in this war' after being drafted, coerced or after joining voluntarily due to their precarious (and ever worsening) socio-economic situation.

The war has had repercussions on Arctic indigenous peoples beyond the Russian part of the region. For example, cooperation between Arctic indigenous peoples has been affected directly – due to the suspension or delay of projects in the framework of the AC or the discontinuation of Interreg projects (notably under Kolarctic and Karelia programming) involving Russia, among other things– and indirectly, as obstructed cooperation in the Arctic impacts the local communities first and foremost. The war has also polarized indigenous Arctic communities not only within Russia, but also around the region. Most notably, it has caused significant rifts between Sámi in Russia and those in Nordic countries, which was manifested by the 'heart-breaking' suspension of two internationally recognized Sámi organizations in Russia from the transnational Saami Council. In parallel, concerns have been raised over the impact of the further militarization of the region on the Arctic peoples, including the indigenous communities.

Security and geopolitics

During the Cold War, the potential use of military force from the Arctic gave the region its geopolitical importance. With the heavy presence of US and Russian intercontinental ballistic missiles, long-range bombers and nuclear deterrents in the Arctic, the region was seen as a theatre for the military posturing and competition between the great powers. However, after the fall of the Soviet Union and the end of the Cold War, through collective efforts and multilateral cooperation, the region was turned into a space generally free of significant geopolitical tensions, avoiding major confrontations even during geopolitically heated times elsewhere, even if ongoing re-militarization in the Russian Arctic has been of concern. The slogan 'high north, low tension' that promoted soft cooperation (excluding military security) was popularized, and reflected the geopolitical dynamics in the Arctic until Russia's invasion of Ukraine in February 2022. That said, with the return of full-blown war to European soil, as well as the implications of climate change (notably, opening trade passages and increasing access to the exploitation of natural resources), heated geopolitics has also returned to the 'high north'.

Russia's aggression against Ukraine since 2014, and especially since its full-scale invasion in February 2022, has led to a number of geopolitical developments that, in turn, have strong defense implications for the Arctic. These developments – the expansion of NATO, the increase in hybrid threats in the region and the growing cooperation between Russia and China in the Arctic – have contributed to the elevated tensions in the region.

NATO enlargement

Russia's invasion of Ukraine was a catalyst for the expansion of NATO. Russia's unprecedented assault led two EU Member States – Finland and Sweden – that belong to the Arctic 8 to revise their non-alignment and neutrality. Consequently, the two countries, each with a long history of neutrality, submitted their applications to become a part of NATO in May 2022. Following ratification by all of its members, Finland joined NATO almost one year later – on 4 April 2023. Sweden is expected to join the block in the near future, when the last two NATO members still to do so – Hungary and Turkey – ratify its bid.

This NATO expansion is of great relevance for the Arctic region. In particular, the accession of Finland, which has a 1 340-kilometre border with Russia, more than doubled the pre-existing border between the block and its rival, and turned the strategically important Baltic Sea into a 'NATO lake'. On top of this, when Sweden finalizes its accession to NATO, all seven Arctic states (except Russia), will be members of the US-led alliance. Both Finland and Sweden would be important security contributors to NATO, bringing in assets such as Finland's expertise in operating in Arctic conditions, its robust defenses on the north-eastern flank, one of the largest artillery capabilities in Europe – with an arsenal of approximately 1 500 weapons – as well as its capabilities and intelligence in telecommunication technologies. In this context, NATO's expansion to the north is set to increase the importance of northern Europe for the whole alliance, strengthen its posture in the Arctic and significantly affect Russia's sense of vulnerability and increase its alertness – all altering regional security dynamics.

Both NATO and Russia react to the tensions in the Arctic, and to the growing strategic importance of the region due to its natural resources, maritime potential and strategic location, by indicating their willingness and ability to operate in the 'high north' to protect their interests. Therefore, NATO and Russia are likely to continue putting importance on the 'high north', not only through the issuance of statements, policy documents and/or strategies, but also through an increase in military exercises (such as Formidable Shield and Arctic Challenge 2023, hosted by Finland), monitoring and other activities and engagement in the region.

Instability in the region In the context where Russia is experiencing challenges in its war of aggression against Ukraine, the Russian government is also likely to use the Arctic as a venue for asserting its dominance and demonstrating that Russia is still a

strong military power. However, Russia's prolonged war in Ukraine and Western sanctions imposed on Russia because of its aggression, are set to weaken its conventional forces and reduce its military readiness in the Arctic region in the short term. Because of this, Russia's political and military leadership may increase the emphasis on nuclear weapons in managing escalation and conflict. This would increase the importance of the Russian Arctic and, in particular, the Kola Peninsula, which borders Norway and Finland and is home to the Northern Fleet, hosting Russia's most advanced Arctic land, air, and naval assets, including its nuclear deterrent. In addition, the European Centre of Excellence for Countering Hybrid Threats reports that Russia has been resorting to more frequent use of hybrid tactics (such as disinformation, cyber operations, jamming of GPS signals, or even alleged and not always confirmed cases of targeting key infrastructure) in the region, which, in turn, raises concerns for NATO, especially its European Nordic members. While experts do not consider that Russia is likely to directly confront NATO, the reduced channels of communication between Russia and Western countries, Russia's intensifying hybrid activities and the risk of Russian provocations increase the risk of miscalculations in the Arctic.

Rise of China as an actor in the Arctic

Closer relations between Russia and China, including increased Sino-Russian cooperation in the Arctic, is another repercussion of Russia's war on Ukraine. The economic sanctions imposed by numerous countries (the US, Canada, and the EU, among others) on Russia due to its annexation of Crimea in 2014, and comprehensively expanded since the full-blown invasion, isolated the country not only diplomatically but also from the West's markets and investments. Therefore, since 2014, Russia has become increasingly dependent on Chinese cooperation. This seems to be in the interests of China, which, despite being situated 1 400 km from the Arctic circle, calls itself a 'near Arctic state' in its 2018 white paper on Arctic policy, and which is keen on expanding its diplomatic, economic, and scientific activities in the region to become a 'polar great power' by 2030. In the context where some observers have raised concerns regarding China's real motivations and goals in the Arctic, and where the strengthened Sino-Russian cooperation in the region could further increase China's presence and activities in the 'high north', the ever-closer cooperation between the two countries may continue to alarm policymakers in the West.

Russia's isolation offers new opportunities for China to gain influence in the Arctic through the soft power toolbox – investment, cooperation on Arctic energy, research and transport, and an ever-closer presence – and through the economic and geopolitical pressure that China may exert. Indeed, just a few weeks before Russia's invasion of Ukraine, on 4 February 2022, the two countries released a joint statement committing themselves to intensifying 'practical cooperation for the sustainable development of the Arctic'. In the spring of 2023, the countries agreed to

establish a joint umbrella organization for traffic along the Northern Sea Route and signed a memorandum providing for extensive cooperation in law enforcement in the Barents Sea and Arctic waters. However, China's ambition to become a 'great polar power' is likely to increase tensions with the Arctic 7 and other Western countries. Russia itself, while officially welcoming China's interest in the Arctic, seems to remain cautious regarding China's growing influence and the possibly shifting balance of power in the area, where Russia has historically enjoyed dominance. In this context, Russia has been seeking to diversify its partnerships in the Arctic with non-Arctic countries, such as India and the United Arab Emirates, that are not aligned with the Western sanctions, and thus are potential suppliers of investment and technology. However, this, combined with China not having a sovereign jurisdiction in the Arctic, and as its capacity to invest is not limitless, could indicate that China's rise as an Arctic player may be limited.

"Lessons from Ukraine for the Arctic: Russia "dialogue" isn't always what it seems," Jeremy Greenwood, Brookings, 31 January 2022 [87]
https://www.brookings.edu/blog/order-from-chaos/2022/01/31/lessons-from-ukraine-for-the-arctic-russian-dialogue-isnt-always-what-it-seems/

Overview:

As tensions continue to mount along the Ukraine border and the threat of invasion by Russian forces (or Russian-backed proxy forces) perhaps imminent, many commentators have looked at the potential consequences for the Arctic. There has been a long-standing call for revitalizing old forums or creating new ones for the discussion of military security matters in the Arctic.

Current & Relevant Information:

The highest and most recent call came from Russian Foreign Minister Sergey Lavrov himself at the May 2021 Arctic Council Ministerial in Reykjavik, who said: "It is important to extend the positive relations that we have within the Arctic Council to encompass the military sphere as well."

While dialogue with one's strategic rivals (and enemies) remains a vital diplomatic tool, it is unclear that any new military security dialogue with Russia in the Arctic would advance the cause of peace or deconflict any military activity in the region.

In fact, it is very possible that quite the opposite will occur, and Arctic tensions will only rise from the creation of a new Arctic security forum or by introducing Arctic military security within the Arctic Council.

Russia's actions in the European security theater to date demonstrate that engagement only goes so far to limit its ambition or temper its militarism. Even if the Ukraine situation turns out to be a bluff, Russia has demonstrated a willingness to mobilize tens of thousands of troops and posture for an unthinkable war on the European continent.

In this case, one quasi-superpower will have forced open a dialogue on “demands” that have been long-settled regarding European security, NATO membership, and the right of a sovereign Ukrainian nation to exist.

This does not bode well for Arctic security in any form; military, economic, environmental, or otherwise. Let’s remember that forums previously existed for the discussion of military security with Russia. The Arctic Chiefs of Defense Forum was suspended following Russia’s unlawful annexation of Crimea in 2014.

It’s no wonder Russia wants the West to resume these dialogues, as it would signal a “return to normal” or simply a quiet understanding that Russia’s means of international engagement are lawful.

In the end, Russia goes it alone and tends to use “dialogue” as a method of normalizing otherwise unacceptable behavior or discussing matters on its terms to advance its interests. While it is true that all nations act in their own interests, Russia’s use of dialogue tends to be regressive for the international community.

As has happened in Ukraine and Georgia and throughout the post-Soviet space, Russia makes facts on the ground and then uses dialogue to normalize it.

The value of an Arctic security dialogue is thin, especially when it comes from the Russians themselves. The argument that it could shape Russian behavior is thinner, and the idea that we could have an inadvertent clash in the Arctic without it must be rationally balanced against the fact that this has not happened, despite an entire Cold War with even higher militarization of the Arctic. Any dialogue that may be needed to de-escalate hypothetical tensions in the Arctic remains available to the Russians through a wide variety of pre-existing channels, including within the United Nations and NATO.

To understand the risk, one needs to only think of the likely list of topics that an Arctic security dialogue would contain. Certainly, Russia would love nothing more than to have advance notice of all military exercises in the Arctic.

Since their coastline occupies more than 50% of the Arctic, the Russians would likely jump at a legal requirement to pre-notify them of submarine deployments and surface naval actions, like the ones the American and British navies recently conducted in the Barents Sea. Such an arrangement would be detrimental to NATO and would not be an “even-exchange” for notification of Russian exercises.

Russia would also likely push for so-called “buffer zones” near its borders, disproportionately impacting Norway, Sweden, and Finland. Surely, Moscow would love to discuss the U.S.-Canadian North American Aerospace Defense Command (NORAD) or the activities of allied forces on Greenland or Iceland.

In the meantime, the Russians aren't actually interested in discussing these issues with NATO, or effectively utilizing the existing NATO-Russia Council, but are seeking a new Arctic forum where they believe that they would have an upper hand.

This is not to say that the United States, its allies, and its Arctic partners should not engage Russia. The Arctic Council remains the premier forum for Arctic cooperation and Russia should continue to engage productively on "soft security" issues such as economic and environmental security.

Combatting climate change through scientific study, reducing the risk of oil pollution, and understanding the economic impacts of increased shipping are all vital to "Arctic security." What is less vital to Arctic security is the discussion of settled principles of sovereign rights and the law of the sea.

"Shifting Ice: How the Russian Invasion of Ukraine has changed Arctic Circle Governance and the Arctic Council's Path Forward," Alan Cunnigham, The Arctic Institute: Center for Circumpolar Security Studies, 14 May 2024 [88]
https://www.thearcticinstitute.org/shifting-ice-russian-invasion-ukraine-arctic-circle-governance-arctic-councils-path-forward/

Overview:

The Russian Federation invaded Ukraine over two years ago in a direct violation of international law. While many feared Ukraine would fall to Putin's soldiers, the Eastern European nation has repelled offensive upon offensive by the Russians while taking back territory from the invading force. Assisted by US and Western European supplies and materials, the Ukrainians have captivated the entire world in their fight against a totalitarian force which has changed not only the entire geopolitical framework of Europe, but also affected nearly every country and continent.

Outside of Ukraine and the immediate vicinity of former Soviet satellite nations, the impact of the Russian invasion has most clearly and presently been felt in the Arctic Circle.

Current & Relevant Information:

How the Russia-Ukraine War Has Impacted the Arctic

The Arctic Circle is of utmost importance to various nations for clear financial, political, and social reasons, the region being key to the global oil and gas industry, to scientific research, and to the fishing industry.

According to the Atlantic Council the Arctic Circle "provides researchers with the means to almost predict the effects of climate change through polar amplification—the phenomenon where changes to our climate tend to produce more extensive changes near the poles than the planetary average—showing what the future will hold," holds an impressive amount of oil and natural gas, "is the perfect incubator for

clean energy," and also allows for faster shipping, which immeasurable helps international business, travel, and communications. The disruption of these programs in the wake of the Russian invasion spells trouble for the global community.

In early March of 2022, roughly fifteen days since the beginning of Russia's invasion, the Wilson Center held an event titled "Ukraine and the Arctic: Perspectives, Impacts, and Implications". One panelist, Dr. Michael Sfraga, the Chair of the US Arctic Research Commission and founding director of The Polar Institute, described how the Ukraine crisis has and will affect the Arctic impressively. He states, "There is a wide array of social, cultural, environmental, economic, political aspects of the Arctic that, at this moment, are feeling the tensions originating in Europe … we see how connected, interdependent, and integrated we really are".

The same day this panel was held, "Seven of the Arctic Council's eight members — all except Russia, which currently holds the council's rotating chairmanship — have agreed to boycott future meetings … indefinitely [pausing] council proceedings on issues from climate change to Arctic oil drilling". This effectively halted all kinds of work being performed in the Arctic given Russia is such a massive partner to various projects in the region.

With the conflict now drawn out for over two years with no end in sight, it is apparent now how the invasion has affected the Arctic. The Arctic Council's determination to boycott future meetings has substantially changed the way in which governance will occur. While the removal of Russia from the Council does allow for a temporary end to "[Russian] participation in one of its few remaining soft power venues capable of meaningful international coordination", it also means the Council "forfeit the institutional legitimacy and progress [it] has fostered" with "little utility [existing] in such an organization without Moscow". This spells severe problems for the Arctic as the Council can no longer claim to be fully or wholly immune to armed geopolitical conflicts and also indicates that the Council will "lose legitimacy and goodwill and its agenda will shrink in both scope and size as future Russian statements on Arctic cooperation will likely be met with more skepticism from the other seven members than ever before". In July 2022, the Arctic Council announced it would resume limited work "in projects that do not involve the participation of the Russian federation," posing serious problems for future governance policies in the Arctic for 2023.

From a climate and scientific research standpoint, Russia is a key figure in "tracking changes such as permafrost degradation and methane emissions from warming landscapes," yet this work has now been halted due to Russia's actions in Ukraine and the international community's desire to pressure Russia into submission. Some academics focusing on climate issues argued that "[the breakdown in relations is] significantly worse now because of the open warfare".

From a military perspective, Russia has long been building up a military presence in the region, modernizing and expanding “military installations … along more than 6,000km of Arctic coastline” as well as reorganizing and updating “Russia’s fifth, military district … [serving to] protect the forces of the Northern Fleet and its nuclear deterrent,” while also announcing in August 2022 that it would refocus its military might on the Arctic and Nordic region. Given that Russian militarization shows no sign of stopping in the Arctic, this is quite concerning and poses a problem for nation-states in the European Arctic, especially for those states that are fiercely opposed to Russian action like Norway.

Furthermore, according to national security and defense experts at the think tank CNAS, “the Kremlin’s sense of security is most likely to be affected by the movement of any NATO infrastructure into Finland and Sweden, the increased size and complexity of NATO exercises in the region, the gathering of air forces on the Scandinavian peninsula, cross-border air exercises, enhanced intelligence collection, and the changed dynamics in the Baltic Sea, which will now be surrounded by NATO member states,” which in turn could heighten the chances “of miscalculation and escalation.”

Not only this, but strategically, China has become a far stronger power in the Arctic, using the power vacuum and political instability to further its economic and military goals in the region.

Overall, the Arctic remains highly vulnerable to changing geopolitical developments, and has likely never been more vulnerable in its history, considering increased global interactions with the region. In fact, the Arctic affairs have become even more vulnerable in recent months, considering Russia’s threat to leave the Arctic Council and their refusal to pay the annual contributions.

How the West Can Reclaim the Arctic

Allowing China to gain a further foothold in the region could lead to severe issues for the global community and for the Arctic itself. However, the end result of Russia’s invasion of Ukraine and how this may affect the Arctic in the immediate future of the conflict and after the conflict is over remains to be seen.

Writing for The Conversation, Mathieu Landriault and Paul Minard, political scientists at the University of Ottawa and the University of Saint-Paul, write, “it’s difficult to foresee how Arctic institutions will continue in the future given the fundamental rift between Russia and the West … [but many Arctic experts] were correctly pessimistic about Arctic Council members, including Russia, resuming co-operation by the end of September 2022,” with most instead seeing the most likely scenario being that Russia and the other members of the Arctic Circle be unable to resume their regular operations in the near future.

In spite of this, commentary in the Financial Times and Foreign Policy has argued that Western efforts at cooperation must be made with Russia in the Arctic. While these experts certainly do not ignore the realities of the Ukraine-Russia conflict, there appears to be a desire to disregard these events in favor of keeping the status quo that has long existed in the Arctic.

No matter the desire to see a return to normalcy or continue operations in the Arctic, while it is important to ensure continuity, it is also important to protect human rights and work against those who are continuing to engage in illegal or criminal activities with no indication or inclination to stop. By continually refusing to work with Russia in the Arctic Circle, the Arctic Council is applying pressure to the Russian Federation in coordination with the international community and the rest of the West. Certainly, the nation-states that make up the Council do realize that this lack of participation with Russia does spell issues for the Council as a whole and in terms of properly governing and regulating the region, yet they understand that what Russia is doing in Ukraine (flagrantly violating international law, indiscriminately killing Ukrainian civilians, torturing and mutilating combatants and prisoners of war, suppressing their own domestic population, and using sexual assault as a weapon of war) matters far more than the current stability of the Arctic Circle. To them, and to the vast majority of individuals, protecting human rights and stopping totalitarian regimes matters more than maintaining the status quo of a region.

Nonetheless, this is not an excuse for allowing China or other world powers that pose an additional threat to stability and apply further pressure and influence in this important region. As such, it should be an additional priority of the Arctic Council to halt Chinese incursion and consolidate Western power over the Arctic against nation-states intent on further increasing their own power to the West’s detriment.

Solutions for the Arctic of the future

The first solution to this complex situation is for the Arctic Council to disband itself and reform their organization in total, without Russia. Timo Koivurova, a research professor at the University of Lapland in Finland whose work largely focuses on the Arctic Circle, detailed in an article for the Georgetown Journal of International Affairs that, “the Arctic Council is only an intergovernmental forum—that is, it is not a formal international organization—so it is possible to continue its work by creatively applying the rules that have evolved over time in the Arctic Council”.

While some have argued the Ottawa Declaration (which established the Council’s authority) is legally binding, Jeremy Greenwood, a fellow at the Brookings Institution and an officer of the United States Coast Guard reasoned that, “[it] is not a binding treaty and the Rules of Procedure that govern the Council are similarly not legally-binding on any State,” meaning these “high-level agreements made in careful negotiation among the Foreign Ministers of all eight States and the representatives

of the Permanent Participants" could be broken with the permission and consultation of the Foreign Ministers and appropriate representatives of the involved states.

As such, the Council is not bound to any legal mandate to retain its membership, so the precedent to move forward without Russia is a realistic one. However, Greenwood does argue for a different path forward, stating, "Russia should be given a clear choice: Voluntarily absent itself from the Arctic Council for the time-being or the other seven Arctic States will establish a parallel forum which will forever doom the current Arctic Council … The benefit to Russia of agreeing to this self-imposed isolation is their ability to maintain a say in Arctic Council final decisions through correspondence," while noting the other signatory members of the Council can remove Russia of chairmanship by way of a vote. Should this not work, Greenberg continues, the Council should then "consider a new parallel body and announce with one voice their intention to carry-on the important work of the Council without Russia … [establishing] a new charter and rules of procedure, with Norway assuming the first Chairmanship".

If the Council did decide to dissolve and recreate itself without Russia, this would give it the ability to continue its operations while maintaining an uncompromising mentality with Russia, in addition to having a more realistic pathway towards countering threats in the region. However, as Heather Exner-Pirot and Evan Bloom, two Senior Fellows at the Wilson center focusing on Arctic politics and governance, have pointed out, this does "mean it will be hard to muster the time and energy to push a new body forward, and its effectiveness for the Arctic region as a whole would be limited without Russian participation".

Conclusion

The Arctic is an imperative region for further multinational cooperation, economic development, and scientific advancement. It is necessary for the region to be protected and defended from any kind of geopolitical upset as it is far too important and essential to many global industries. However, this balance should not be sacrificed at the cost of doing what is morally right, adhering to the values of individual nation-states and liberal democracies, and also ensuring that despotic leaders are unable to violate international law and human rights.

In continuing operations in the Arctic, it is first important that Russia be defeated in Ukraine. Through providing arms and materiel to the Ukrainian forces and government, something most of the West has already been doing, the global community has been able to undeniably help push back Russia while also protecting their own interests and the interests of Liberal Democratic governance. However, another way of showing global solidarity, working against the Russian Federation, and making for a safer Arctic Circle is by completely reorganizing the Arctic Council and removing Russia from activities in the forum.

The Arctic Council has already made a noble decision to continue many of its projects and forces without including Russia. While many political science and international relations experts in influential publications have argued that the Arctic Council should continue coordinating efforts and cooperate with Russia, the unclear future and complicated current geopolitical situation requires innovation and risk.

Allowing the Arctic Circle to be unprotected is not a solution, but also cooperating with a nation-state that has proven time and time again to be a threat to global security in return for an uneasy alliance in the Arctic is not a viable solution either. By removing Russia from the Arctic Council and reorganizing the entity in total, this allows for an entity that can secure the Arctic region on its own terms, in accordance with international law, and promote security and stability without having to compromise their beliefs or working with nations that violate those international norms.

"Russia in the Arctic: Gauging How Russia's Invasion of Ukraine Will Alter Regional Dynamics," Andrea Kendall-Taylor, et al., Center for a New American Security, 15 September 2022 [89] https://www.cnas.org/publications/reports/russia-in-the-arctic-gauging-how-russias-invasion-of-ukraine-will-alter-regional-dynamics

Summary:

Russia's reinvasion of Ukraine in February 2022 is producing ripple effects that will reverberate far beyond Ukraine for years to come, affecting issue areas and regions where the United States and Europe must manage relations with Moscow. Such effects will certainly be felt in the Arctic (which for this study will be limited to the European Arctic or the "High North"). Already, Russia's aggression in Ukraine has compelled Finland and Sweden to apply for NATO membership, altering the region's security architecture. Amid the changes that are unfolding, it is critical that analysts and policymakers reexamine long-standing assessments and assumptions about Russia. To that end, this paper reexamines Russia's approach to the Arctic in light of events in Ukraine. Given the high degree of uncertainty about the trajectory of the war in Ukraine and its effect on Russia, it is impossible to confidently project a single future for Russia's Arctic policy. CNAS researchers, therefore, identified four drivers that are most likely to shape Russia's approach to the Arctic: Russia's perception of the Western threat, the impact of Western sanctions, China's role in the Arctic, and whether Putin remains in power. Using different permutations of those drivers, the authors developed three scenarios for how the future Russian approach to the Arctic could evolve looking out to 2025.

SCENARIO ONE: ISOLATED RUSSIA

Russia's economy is badly damaged because of effective and lasting Western sanctions, and Moscow is isolated from the West and other partners such as China, which seeks to avoid European backlash that could stem from its support for Moscow. The degradation of Russia's conventional military forces in Ukraine leads

Moscow to double down on its nuclear arsenal, raising the importance of protecting its second-strike nuclear capability in the Northern Fleet. Russia's poor military performance in Ukraine also leads Putin to view the Arctic as an opportunity to demonstrate that Russia is still a power to be feared. Putin seeks to use frequent displays of military power in the region, where Russia still enjoys a subregional military advantage, to restore the Russian military's image as a formidable force. Russia occasionally stages complex, attention-grabbing "warning" exercises by flexing its nuclear capability and uses the Arctic as a testbed for new and experimental weapon systems. In this scenario, there is heightened risk of escalation, either unintentional, or because Moscow intentionally instigates a provocation designed to show that Russia is the dominant power in the Arctic—a proposition that grows if Russia calculates that the United States and NATO are exhausted amid a long, grinding war in Ukraine.

SCENARIO TWO: RUSSIA-CHINA ENTENTE

The Russian economy is resilient to sanctions, largely due to hydrocarbon and mineral exports as well as cooperation with partners outside the West, especially China. Russia and China deepen their military and economic relationship, as Putin can no longer refuse Xi's demands to have a Chinese military presence in the Russian Arctic. Russia and China conduct joint air patrols and share satellite capability, while Russia allows China to build military facilities in the Arctic. Although little information is available, there are indications that Russian Arctic development is having a devastating effect on the environment. In this scenario, a Chinese military presence (or major exercises) in the Russian Arctic or in the Northern Sea Route would complicate U.S. Navy competition with China in the Indo-Pacific by adding another theater of operations—in this case the Arctic—where the U.S. Navy would have to monitor Chinese naval operations and perhaps even prepare for potential confrontation.

SCENARIO THREE: POST-PUTIN RUSSIA

Vladimir Putin is no longer in office. A civilian government staffed by "technocrats" is established, although real power remains in the hands of the security services. The government initiates a global charm offensive to garner support for Russia's reintegration into the international community. Looking to bolster an economy weakened by sanctions, Moscow appeals to Western energy companies to return and for the Arctic Council to resume. Meanwhile, satellite imagery indicates continued infrastructure buildup at key Russian Arctic military bases and the acceleration of Moscow's efforts to enhance its anti-access/area denial capabilities along the Northern Sea Route. While NATO expresses concern about Russia's actions in the Arctic, its 32 members remain divided on the best way to deal with the new government. In this scenario, Putin's departure raises hard questions the transatlantic allies will have to confront about how to approach Moscow. Opposition to Putin and his authoritarian regime is currently a unifying force for the West and his

departure could produce uncertain and conflicting responses. The better the Russians behave, the harder it will be to keep the alliance unified. While some countries may seek to guide Russia toward democracy, others will remain skeptical of Russia's intentions and its ability to overcome its authoritarian past. This divergence would place strains on NATO and the European Union, potentially fracturing their approaches to Russian actions, including those in the Arctic.

Key Takeaways

¡ Contrary to Putin's statements suggesting that Finland's and Sweden's NATO membership do not pose a threat to Russia, their entry into the alliance will profoundly alter regional security dynamics, Moscow's relations with each country, and ultimately Russia's threat perception in the region.

¡ The Kremlin's sense of security is most likely to be affected by the movement of any NATO infrastructure into Finland and Sweden, the increased size and complexity of NATO exercises in the region, the gathering of air forces on the Scandinavian peninsula, cross-border air exercises, enhanced intelligence collection, and the changed dynamics in the Baltic Sea, which will now be surrounded by NATO member states. This sense of Russian insecurity could increase the chance of miscalculation and escalation.

¡ Russia's war in Ukraine and the weakening of its conventional forces will likely drive the Russian political and military leadership to see an increase in the utility of nuclear weapons in managing escalation and conflict, increasing the importance of the Kola Peninsula.

¡ Russia's growing sense of vulnerability, along with reduced channels of communication with the West, is likely to lower the threshold of what the Kremlin responds to in the Arctic and is likely to increase the unpredictability of Russia's actions there. Putin is also likely to view the Arctic as a venue for demonstrating that Russia is still a power to be feared, raising the risk of Russian provocations and miscalculation/escalation in the Arctic.

Current & Relevant Information:

Introduction

Russia's reinvasion of Ukraine in February 2022 is producing ripple effects that will reverberate far beyond Ukraine for years to come, affecting issue areas and regions where the United States and Europe must manage relations with Moscow. Such effects will certainly be felt in the Arctic (which for this study will be limited to the European Arctic or the "High North"). Already, Russia's aggression in Ukraine has compelled Finland and Sweden to apply for NATO membership, strengthening the region's security architecture. Although Russian President Vladimir Putin has publicly stated that their membership in the alliance does not pose an immediate threat to Russia, their membership is sure to change the region's security dynamics

and increase the sense of threat that Moscow perceives, leading to still-undefined changes in Moscow's relations with its Arctic neighbors.

Beyond Finland's and Sweden's entry into NATO, Moscow's future foreign policy approach will be influenced by additional changes playing out in and around Russia. These include the significant rise in confrontation between Russia and the West; the impact of Western sanctions on Russia, including on the Russian military; the evolving Russia-China relationship; and the heightened possibility of leadership change in Russia. Although it is still unclear how the war in Ukraine will end, the torrent of nationalism the Kremlin has unleashed in the country and the lived experience of the war in Ukraine—a war that the Kremlin has framed as a great patriotic endeavor—will shape the worldviews of current and future Russian officials; these altered worldviews will have unpredictable effects on Moscow's foreign policy priorities and decisions. Any one of these changes could dramatically alter Russia's actions in and approach to the Arctic. Although Russia will emerge from the war in Ukraine weaker, a wounded Russia is still a dangerous Russia, and the Arctic provides the Kremlin with a venue to attempt to demonstrate that Russia remains a great power to be feared.

Amid the changes that are unfolding, it is critical that analysts and policymakers reexamine long-standing assessments and assumptions about Russia. To that end, this paper reexamines Russia's approach to the Arctic in light of events in Ukraine. Given the high degree of uncertainty about the trajectory of the war in Ukraine and its effect on Russia, it is impossible to confidently project a single future for Russia's Arctic policy. CNAS researchers, therefore, developed three scenarios for how the future Russian approach to the Arctic could evolve looking out to 2025. The three scenarios presented in this report aim to prepare policymakers and planners for the possible futures they could face and the implications of those futures, including key challenges and opportunities that may arise in the years to come.

The report first identifies the drivers that are most likely to shape Russia's approach to the Arctic and discusses how those factors are evolving. These drivers include Russia's perception of the Western threat, the impact of Western sanctions, China's role in the Arctic, and whether Putin remains in power. Using different permutations of those drivers, the report then spells out three scenarios for Russia's approach to the Arctic: an isolated Russia, a Russia-China entente, and a post-Putin Russia. These three scenarios were chosen based on their potentially significant impact on U.S. and European national security interests. For each scenario, the report discusses the implications of the given world for the United States and Europe.

Conclusion

The Arctic will only continue to grow in importance over the coming years due to climate change. Even before Russia's invasion of Ukraine, the region was characterized by a growing sense of competition as climate change opened access

to the region's resources, with political analysts warning about a heightened risk of conflict. Tensions between Washington and Moscow were already running high, and the United States and European Arctic nations were operating in ever closer proximity to Russian forces, amplifying the risk of unintended escalation. Now, Russia's invasion of Ukraine is producing ripple effects that are altering—and further complicating—the security order and dynamics in the region. Real questions have (re)emerged about how Russia will respond to Finland and Sweden joining NATO; what the degradation of Russia's conventional forces will mean for its nuclear posture and how any change in Russia's posture will affect its actions in the Arctic; whether China will look to play a greater role in the region; and how the Kremlin could seek to use the Arctic as an opportunity to demonstrate that Russia is still a great power.

Given the uncertainty of the present period, it is difficult (and unwise) to make a single-point prediction about how Russia will approach the Arctic going forward. This report, therefore, presented three potential futures for how Russia's approach might change following its invasion of Ukraine. Although it is impossible to know for sure how dynamics in the Arctic will develop, this report bounds the problem—identifying the factors most likely to shape Russia's approach and assessing how those factors might combine to shape future reality. In this way, the goal of this report was to generate new thinking and discussion about how the war in Ukraine will shape dynamics in the Arctic with the intent of better preparing policymakers to plan for what the future might hold.

Regardless of what future unfolds, Russia will sustain its desire to be the predominant Arctic power in the 21st century. As Russia is the largest Arctic state, it cannot be ignored when it comes to Arctic matters. Now, given the changes that Russia's invasion of Ukraine has set in motion, it is critical that the United States and its Arctic allies prepare for new challenges that will arise and remain united in navigating them.

"Feeling the chill: Navigating Arctic governance amid Russia's war on Ukraine," Joanna Hosa, European Council on Foreign Relations, 18 May 2023 [90]
https://ecfr.eu/publication/feeling-the-chill-navigating-arctic-governance-amid-russias-war-on-ukraine/

Summary:

- Russia's war on Ukraine has highlighted the strategic importance of the Arctic and upended structures of cooperation between the western Arctic states and Russia, including the Arctic Council.
- The Arctic Council includes six organizations of indigenous peoples alongside the eight Arctic states, providing a platform for inclusive governance and the recognition and representation of the Arctic's indigenous population.

- The participation of indigenous peoples in Arctic governance is key to upholding Europe's values-based foreign policy and effective governance in the region, particularly against the backdrop of Russia's values war with the West.
- The war has divided the Arctic into two camps – one including the Western Arctic states and the other comprising the Russian Arctic – with both sides exploring alternative avenues for cooperation.
- In this uncertain context, European governments need to preserve indigenous peoples' participation in existing and emerging forums of cooperation.

The motto 'nothing about us without us' has long been used by Ukrainians to demand that their voices are heard on issues that directly affect them, whether deciding on the Normandy Format – the grouping of states formed in an attempt to resolve the war in Donbas in 2014 – or building the controversial Nord Stream 2 pipeline. As Russia's war on Ukraine brings more attention to the Arctic, its people have taken up the same refrain. With the region's geopolitical importance growing, it is essential that they are involved in discussions about its future.

The effects of rapid climate change in the Arctic, its militarization, and the hype surrounding its potential in natural resources have attracted international attention to the region in recent years. In this context, the inhabitants of the Arctic, particularly its indigenous peoples, often stress that it should not be considered as a future military base or the next target of unbridled resource exploitation. Instead, governments should work to protect it and preserve its nature. The Arctic's indigenous communities – some of which are still reeling from a painful history of colonization – have long fought to have their voices heard and be present at the decision-making table. Despite the long road ahead, they have made some progress, including growing recognition of their rights at the United Nations, the European Union, and at national levels.

Indigenous organizations have gained representation at the Arctic Council, which has become their most significant platform and crucial for sharing their perspectives on governance of the Arctic region. This leading forum for Arctic cooperation includes the eight Arctic states – Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, and the United States – as well as six organizations of indigenous peoples of the Arctic as "permanent participants." Russia's invasion of Ukraine has upended structures of cooperation in the region, including the Arctic Council. In March 2022, it suspended its activities in response to Russia's invasion, largely depriving the indigenous people of this key forum.

In May 2023, Norway successfully took over the chair of the Arctic Council from Russia, furthering hopes that Arctic cooperation can be revived. However, the future of the forum remains uncertain, and it is unclear to what extent the Arctic Council can include Russia in its work while the war in Ukraine continues. In this context,

indigenous peoples are amplifying their demands for inclusion in other forms of cooperation and positioning themselves as indispensable partners in the region.

Involving indigenous people in policymaking can strengthen European foreign policy. As the Arctic's global importance increases, European Arctic states will need robust relationships with the local population to govern effectively and champion European priorities in the turbulent times ahead. If they want to build strong partnerships with the indigenous communities in the region, they need to support their aspirations for recognition and representation.

Such an approach would also uphold Europe's commitment to a values-based foreign policy and help it overcome its legacy of colonization in the Arctic. This is particularly relevant in the context of Russia's war on Ukraine, which Moscow frames as a war of values against the West. Russia's use of force in neighboring countries, tight control of its own regions, and close relationships with authoritarian nations such as China – including in the Arctic – underline the contrast between Europe and Russia. In their relations with indigenous peoples of the Arctic, European states should uphold their core values of human dignity, freedom, democracy, equality, rule of law, and human rights. This is not only the right thing to do morally, it would also strengthen Europe's position vis-à-vis Russia, both on Arctic issues and beyond.

This paper examines how the people of the Arctic – the indigenous peoples and regional governments alike – have been involved in Arctic policymaking, how Russia's war on Ukraine has changed Arctic governance and indigenous participation therein, and how European policymakers can ensure that indigenous peoples' voices are heard and that they are involved in shaping the future of the region. It focuses on two Arctic entities: Greenland – which remains part of the Kingdom of Denmark – and the Canadian territory of Nunavut, which, though not in Europe, serves as a valuable case study of indigenous governance and reveals some of the challenges facing the people of the Arctic. Both these territories have majority indigenous populations: in Nunavut, the Inuit constitute 83.7 per cent of the total population, while in Greenland the population is 88 per cent Inuit.

Current & Relevant Information:

Arctic people and governance

Different Arctics

Looking at a map, one could assume that the Arctic is one mostly homogeneous area, like Antarctica. But it differs from Antarctica in many ways. Antarctica is uninhabited and is governed by a comprehensive Antarctic Treaty that aims to ensure peaceful use and scientific cooperation on the continent. By contrast, the Arctic land is inhabited and is divided between eight sovereign states. Seven of the Arctic states are some of the world's most progressive democracies, while Russia has become a highly centralized authoritarian state under the rule of Vladimir Putin.

There are significant geopolitical and economic differences between these Arctic territories. Norway, Sweden, Finland, and Iceland are small countries with strong northern identities and their Arctic territories are close to the centers of power. Due to the warm Gulf Stream ocean current that envelops northern Europe, the temperatures in these parts are higher than in the American Arctic, making it easier to develop and maintain settlements there. By contrast, the Arctic parts of Canada, the US, and Denmark are far from the national capitals; this distance and the resulting isolation is palpable and winter temperatures can drop well below minus 30 degrees Celsius. As a result, these regions have long lacked investment and sometimes even been neglected, as their central governments and businesses considered the cost of the cold too high to invest more in them.

The Russian Arctic is a world of its own. It is relatively heavily populated: of the around 4 million people that live in the Arctic, half are in Russia. This is because Russia has followed a consistent strategy of industrialization of the Arctic, unlike other Arctic states. In pursuit of natural resources, the Soviet Union built industrial complexes and vast cities from scratch in the Arctic and conducted mass deportations to relocate people to the far north. Analysts have argued that this level of Arctic investment was unsustainable and, especially after the collapse of the Soviet Union, became the source of Russia's great economic weakness. Nevertheless, Russia has again gradually increased its Arctic investments over the last two decades – this time mostly focused on the development of the Northern Sea Route – and the number of military bases there, especially since it annexed Crimea.

Over the years, strategic documents of the different Arctic states have revealed these diverging priorities, with notable differences between the strategies of the seven democracies and that of Russia. While the democracies have prioritized the environment and sustainable development, Russia has focused on development above all, with very little interest in sustainability.

The people of the Arctic are equally varied. The biggest indigenous group is the Inuit, whose population is estimated at over 180,000 people scattered across northern Canada, Denmark and Greenland, Alaska (a state of the US), and Russia. In Europe there are around 80,000 Sami – the only indigenous people in the EU – present in Norway, Sweden, Finland, and Russia. Apart from the indigenous populations who have lived in the far north for thousands of years, there are also those who settled there much later, such as the Danes who arrived in Greenland with the missionary, Hans Egede, in the 18th century, or Europeans who followed the 16th-century English explorer, Martin Frobisher, to Baffin Island.

The Arctic states have taken different approaches to incorporating indigenous peoples into policymaking. In the democratic countries, after a long period of colonization, indigenous peoples have increasingly gained more rights and representation. There is a patchwork of institutions that represent them, while some others, including the regional governments, represent the public at large. By

contrast, in Russia, the Arctic is divided into federal constituent territories, whose governors are appointed by Moscow. The territories have little autonomy, and indigenous peoples are not involved in policymaking.

Arctic Council cooperation

Despite these differences, the Arctic states and communities of indigenous peoples have found a way to cooperate through the Arctic Council. Ironically given the effects of Russia's aggression on the organization, it was the Soviet leader, Mikhail Gorbachev, who in 1987 launched the Murmansk Initiative with the goal to 'de-securitize' the Arctic. During the cold war, both the US and the Soviet Union stored significant military arsenals in the area, including intercontinental ballistic missiles and nuclear weapons. When the conflict ended, the governments of the Arctic states decided to transform it from a military theatre into a zone of peace. Almost a decade later, in 1996, they established the Arctic Council. In the spirit of de-securitization, its founding document, the Ottawa Declaration, explicitly states that the Arctic Council "should not deal with matters related to military security."

Instead, the Arctic Council aims to preserve the fragile environment in the region and foster sustainable development. It is structured around six working groups, which focus on contaminants, the monitoring and assessment of environmental change, conservation of flora and fauna, emergency prevention, the protection of the marine environment, and sustainable development. The Ottawa Declaration is not a treaty and so agreements made within the Arctic Council are not legally binding.

Moving away from a military focus was a big achievement and a notable change of course. However, the motivation to cooperate was always driven by the threat of confrontation that the Arctic had experienced during the cold war. Academics and analysts have held vivid discussions about whether the Arctic is a zone of cooperation or confrontation – and if the former, how long it can remain so. But diplomatic circles have mostly been determined for the Arctic to remain an exceptional sphere of cooperation. The seven democracies wanted to compartmentalize relations with Russia to keep the Arctic stable and peaceful. Indeed, the Arctic Council survived major upheavals, including Russia's annexation of Crimea in 2014. Canada was the Arctic Council's chair at the time and suggested limited sanctions against Russia, such as boycotting meetings in Moscow, but was criticized by other member states for breaking the holy rule of not letting other conflicts spread into the Arctic.

The Arctic Council has taken steps to ensure the participation of indigenous peoples. The Ottawa Declaration opens by affirming its "commitment to the well-being of the inhabitants of the Arctic" and stresses the contribution of the indigenous peoples in particular, explicitly stating that they will play a key role in the Arctic Council. To foster true cooperation, in an innovative step, the Arctic Council includes six organizations of indigenous peoples as equal partners: the Aleut International

Association, Arctic Athabaskan Council, Gwich'in Council International, Inuit Circumpolar Council, Russian Association of Indigenous Peoples of the North, and the Saami Council. These communities can fully participate in all working groups, actively shaping the agenda and development of this key institution for Arctic governance.

Upheaval of Russia's war

Suspension of the Arctic Council

Despite the Arctic Council's previous efforts to prevent conflicts elsewhere from affecting its work, it suspended its activities shortly after Russia's invasion in 2022. Russia had only assumed its two-year chairmanship of the organization in May 2021. It had planned an ambitious program of activities focusing on four areas: Arctic inhabitants and indigenous peoples, environmental protection and climate change, socio-economic development, and strengthening the Arctic Council. Despite tensions between Russia and the West reaching new heights, in 2021 experts and diplomats expected that Arctic cooperation would prevail, and that the Russian chairmanship would be fruitful.

However, it was not to be. On 3 March 2022, the other seven Arctic states issued a statement condemning Russia's invasion of Ukraine. They wanted to make a stand and, more pragmatically, they were no longer in a position to travel to Russia for meetings and decided to pause all Arctic Council cooperation until further notice. Russia considered this to be an irrational step and feigned surprise and incomprehension: after all, the Arctic was supposed to be the unique area where cooperation was possible regardless of what was happening elsewhere in the world. Moscow argued that the Arctic Council exists to foster environmental protection of this fragile region and socio-economic development and should therefore prevail despite confrontation elsewhere.

The pause might seem like a mild step – after all, Russia was not suspended or excluded, as it was from the Council of Europe, for example. However, by Arctic Council standards this was unprecedented and reflected the belief that without Russia – the biggest Arctic state – the organization's rationale is less apprehensible. Many Arctic stakeholders feared that decades of Arctic cooperation risked being lost, including numerous joint research projects, conservation work, environmental protection, and the achievement of such prominent inclusion of indigenous peoples in decision-making processes. This is why Norway, as the next chair holder, made it its priority to restart the work of the Arctic Council in May 2023.

Greenland's pitch for independence

Russia's war has highlighted the strategic significance of the Arctic and brought to the fore issues ranging from environmental risks related to Russia's non-cooperation

in the region to the threat of military escalation. Amid this increased attention, Greenland has amplified its calls for recognition and participation in decision-making.

In recent years Greenland has been attracting more and more interest and gaining respect on the international scene. It made headlines when President Donald Trump proposed purchasing the island in 2019 for its strategic location. Worldwide, it had previously inspired investors who were struck by the promise of a natural resources rush. Meanwhile, in the United Kingdom, Greenland captured analysts' imagination as an example of a country that had left the EU.

Greenland already enjoys a degree of self-government. It has had its own government since 1979, when it gained home rule after being a Danish colony since the early 18th century, becoming an autonomous region within the Kingdom of Denmark. This was a long-held dream for the Inuit, who suffered from the destruction of their traditional communal life, forced Christianization, and suppression of their language under colonization. In Denmark many people treated them as second-class citizens and thought they were unable to govern themselves. Greenlanders living in Denmark have likewise faced discrimination. According to the UN special rapporteur on the rights of indigenous people, discrimination and racism of Greenlanders by the Danish authorities is an ongoing problem.

In 2009, under the Self Rule Act, Greenland gained the right to declare full independence. At the same time, the government's portfolio broadened to include trade, energy, and minerals, while foreign and security policy remain the responsibility of Copenhagen. The government has exercised this autonomy, taking a particularly strong stand in managing Greenland's mineral resources. The latest government, led by the left-wing Inuit Ataqatigiit party, came to power on an anti-mining platform and has so far managed to halt the development of a rare minerals mining project on Kvanefjeld mountain, in the agricultural region of south Greenland, which would have produced radioactive uranium and therefore prompted widespread protests. Greenland already has a foreign ministry, but in order to gain full independence – which remains the goal of all major political parties in Greenland – it now needs to develop its own foreign and security policy.

Greenland has long been important for US security due to its strategic position in the Arctic, close to both north America and Europe. The US Thule Air Base, which includes a deep-sea port and an airfield, has been located in northern Greenland since 1943, after Denmark authorized the US to defend the island from potential German aggression. After the second world war, it remained an outpost to monitor Soviet military activity in the far north, then lost some of its relevance after the collapse of the Soviet Union. But Russia's annexation of Crimea in 2014 and the ensuing distrust between Russia and the West made Greenland's strategic importance more evident again. As Russia increased its military presence in the Arctic, the US could monitor Russia's north or track possible intercontinental ballistic missiles from the Thule Air Base. As a result, the long-neglected Inuit government of

Greenland began to gain more respect and recognition from Copenhagen, and the Danish government began sharing more information with Greenland. Greenland also began to enjoy greater recognition at the Arctic Council – not yet as a separate entity, but leading the Danish delegation since 2021. In 2020, the US re-established a consulate in Greenland's capital city, Nuuk, and, in a sign of respect, renamed the Thule Air Base to Pituffik Space Base, to include its original Inuit name, in April 2023. The EU, keen to be more present in the Arctic, also began plans to set up its own office in Nuuk.

In the context of Russia's war in Ukraine, Greenland has been seeking to capitalize on its increased strategic importance to further emancipate itself. Since the invasion, the Greenlandic government has taken steps to put its foreign policy into action and present itself as an important, responsible partner in the region. In an unprecedented step, right after 24 February 2022, Greenland's new prime minister, Mute Egede, announced that Greenland would join Western sanctions against Russia. His clear, outspoken position surprised experts and diplomats, who noted that Greenland was traditionally keen to keep good relations with Russia and others and therefore does not typically pick sides.

The war in Ukraine might resonate particularly in Greenland because of its own colonial history. Western observers and Ukrainian activists often depict Russia's war as an anti-colonial struggle, in which Kyiv is fighting against an oppressor who believes that Ukrainians should not govern themselves. This narrative could also support Greenland's aspirations for independence. If Western states are defending the oppressed in Ukraine, they should apply the same logic to the people that they once subjugated in the Arctic. As such, the cause of Greenlandic independence is likely to find more empathetic ears than ever before.

Greenland also wants to be part of security discussions. While some Greenlanders see the American-held Pituffik Space Base as a nuisance or yet another example of external interference on Greenland's territory, it now gives Greenland more status in discussions with both Denmark and the US. The Greenlandic government has shown that the Inuit are not only interested in the environment and fisheries, but increasingly want a seat at the table when it comes to foreign policy and 'hard security' matters.

Nunavut's call for investment

Russia's invasion has also had repercussions for the far north of Canada, shining a light on its strategic importance and the need for investment in its infrastructure and people. Despite being Canada's biggest territory, Nunavut remains largely unknown, not only internationally, but also within Canada itself. When it comes to Arctic governance, its 38,780-strong population is not represented in the Arctic Council (unlike Greenland), with Ottawa representing Canada. The vocal Canadian chapter

of the Inuit Circumpolar Council (ICC) – one of the six permanent participants of the Arctic Council – fills part of this gap. The ICC was formed in 1980 and aspires to be the “united voice of the Arctic,” with participation of the Inuit from Canada, the US, Greenland, and Russia. But although this group quickly gained recognition and then a seat in the Arctic Council, it remains a non-governmental organization, with limited funding and powers.

Nunavut has a complicated relationship with the rest of Canada, marked by deep post-colonial trauma. Many Inuit in Nunavut see Canada as a colonial power that forced their nomadic ancestors to settle and abandon their traditions and livelihoods. Previously self-sufficient, the Inuit became disorientated and dependent on supplies from other parts of Canada. In a particularly damaging policy, the federal government forcibly took Inuit children away from their families and sent them to residential schools where they were assimilated into the dominant population. In recent decades, the realization of the physical and sexual abuse committed between the 1870s and the 1990s in the mostly church-run, but government-sponsored, schools has shaken Canada and led to comprehensive truth and reconciliation efforts. Despite these efforts, many Nunavut families remain deeply traumatized by the residential school system.

Canada established Nunavut as its newest territory in 1999, in recognition of the Inuit will and right to govern themselves. Its founding acts, the Nunavut Act and the Nunavut Land Claims Agreement Act, allowed the people of Nunavut to set up their own government and manage some of their land. This was a long-held dream for the Inuit, for which negotiations took decades. The government renamed the colonial town of Frobisher Bay to Iqaluit (meaning “the place of many fish” in Inuktitut, the principal Inuit language in Canada) in 1987. Iqaluit became a booming capital which now hosts an array of territorial and national institutions, responsible for a wide variety of policies, including economic development, climate change, public health, transport, education, justice, culture, and finance. Its population has doubled since 1999 and today Iqaluit has 7,429 inhabitants; its inhabitants joke that half of them work in some kind of government institution.

However, the Nunavut government does not own the land. The 1999 agreements established “Inuit-owned” lands, which are managed by the private Inuit company Nunavut Tunngavik Inc (NTI). Some argue that NTI has more say in Nunavut than the actual government. While the government is a public body that represents all citizens of Nunavut, NTI protects Inuit interests above all else. There are therefore regular arguments between the two bodies. The NTI is often distrustful of the government, regularly accusing it and even suing it for not doing enough for the Inuit, including not employing enough Inuit in the governmental departments.[9] The government and the NTI recently signed a Partnership Declaration, in which they pledge to work more closely together for the sake of Inuit prosperity, but divisions

remain. The government is therefore often frustrated and does not have much influence, both within Canada and internationally.

The people of Nunavut want to take more responsibility for their own affairs, gain more power, and ultimately change Nunavut from a territory to a province. But these ambitions are complicated by many factors, including a lack of healthcare, deep trauma from the history of the residential schools, as well as the mental health and social problems they created, high unemployment, a housing shortage, and a distrust in education (in large part due the destruction of the former Inuit way of life through modern education). The territory also has much less well-developed infrastructure than Greenland does and needs much more investment. What is more, there is an insufficient workforce to address these problems. While incomers are needed and welcome, they are often referred to or even self-identify as “settlers”, suggesting their separateness and perhaps temporary status.

Russia’s aggression against Ukraine has provided an impetus to change this dynamic, improve cooperation between Ottawa and Nunavut, and propel the Canadian government to invest more funds and energy into the territory’s development. The war has brought international attention to Nunavut. In August 2022 NATO secretary general Jens Stoltenberg visited Cambridge Bay in Nunavut to assess the state of NATO’s northern defenses. With the Canadian prime minister, Justin Trudeau, he discussed how Canada can assert its sovereignty and protect the area and the north American continent at large. A few months earlier, Canada pledged to invest 4.9 billion Canadian dollars in the modernization of the North American Aerospace Defense Command (NORAD), the binational military command that the US and Canada established in 1958 that has radars and other facilities located in Nunavut. The visit also highlighted the importance of the indigenous peoples in Nunavut. In Cambridge Bay Trudeau noted, “We can never forget that sovereignty doesn’t come through soldiers or scientists. Sovereignty comes through the people who’ve lived here for millennia.”

This attention has amplified the Nunavut government’s appeals for change. Along with the premiers of two other Canadian northern territories (Yukon and Northwest Territories), the premier of Nunavut, PJ Akeeagok, has condemned Russia’s war in Ukraine. The three premiers have also argued that to assert its sovereignty, Canada needs a resilient population in the north. They maintain that if Canada is to continue to own the land and increasingly use it for NATO’s northern defense, it has a responsibility to prioritize the well-being and needs of the people who live there. Projects like the NORAD modernization help strengthen the overall security of north America, but the inhabitants of Nunavut want additional attention and investment on areas that are more important to them, including critical infrastructure, healthcare, housing, food security, and education.

Russia’s muted north

While the Inuit in Denmark and Canada have been moving towards more self-government and attempting to overcome their colonial legacy, their counterparts in Russia are in a very different position. In Russia, indigenous peoples – the Inuit, the Sami, and other less populous peoples – have long been minorities that are assimilated into Russian society and do not have a say on governance, despite an official rhetoric that indigenous populations matter. While the Sami have a parliament in Norway, Sweden, and Finland, they do not have one in Russia.

In Russia, even indigenous associations are not free. The Russian Association of Indigenous Peoples of the North (RAIPON) is an ostensibly non-governmental organization with a seat in the Arctic Council but has in fact long been an arm of the government. In 2012 it was taken over by new leadership that is fully aligned with the Russian government. After Russia's invasion of Ukraine, it published a letter expressing its full support for Putin's decision to invade Ukraine.

A new organization, the International Committee of Indigenous Peoples of Russia, whose representatives now live outside Russia, have made statements against the war, expressed outrage at the position of RAIPON, and appealed that it should no longer be considered a legitimate representative of Russia's indigenous peoples. However, it is RAIPON that has a seat at the Arctic Council – there are currently no efforts to exclude it.

Russia's war on Ukraine has had a strong negative impact on the indigenous peoples of Russia. They have little choice but to support the war as they could otherwise face persecution or, if they openly oppose it, prison. Many have been drafted into the army (reliable figures are not available). Moscow seems to have no qualms about wasting the lives of its soldiers and of minorities in particular. Many indigenous citizens, who are generally worse off than ethnic Russians, have voluntarily joined the army due to their difficult socio-economic situation.

Paths forward

Despite the war and the differences between the Arctic states that have come to the fore, Arctic diplomats, scientists, and the ICC agree that the Arctic Council can only serve its purpose with the involvement of Russia. In order to make progress on environmental protection or search and rescue operations, Russia's contribution is essential. Norway was determined to restart the work of the Arctic Council under its chairmanship for 2023-2025, and managed to organize an orderly takeover meeting from the Russian leadership in May 2023.

The handover meeting was low key and held online. After the handover, all eight Arctic states published a joint statement that expressed their commitment to safeguard and strengthen the Arctic Council. As the first common statement made since Russia's invasion of Ukraine, this was a noteworthy development. However, the document was otherwise rather vague and the future of cooperation with Russia remains unclear. The other Arctic states do not envisage high-level political

cooperation with Moscow, planning to simply resume low-level and scientific cooperation. The Norwegian senior Arctic official, Morten Høglund, stated that Norway's main priority is to make sure the Arctic Council survives. Meanwhile, Russia asserts that it wants to be a member of the organization. Following the handover meeting, the Russian senior Arctic official, Nikolai Korchunov, said that Russia will stay in the Arctic Council as long as it serves its interests. But a few days later he claimed that if Russia is not invited to meetings in Norway, Moscow would consider this a violation of its rights and would withdraw from the organization. Keeping the Arctic Council whole is therefore bound to be a challenge.

Some analysts believe that if multilateral cooperation cannot continue, bilateral cooperation with Russia would still be possible in the far north in fields where both sides have a strong interest. Norway's latest fisheries agreement with Russia is a case in point. Despite tensions, the Joint Norwegian-Russian Fisheries Commission has continued its work and in October 2022 managed to agree on fishing quotas for the Barents Sea, with the goal of maintaining it as a sustainable fishing area. However, bilateral cooperation risks limiting the exchanges to national capitals and excluding the people of the Arctic in the process. And many will be reluctant to cooperate bilaterally with Russia. Indeed, Greenland took a different approach to fisheries from Norway, informing Moscow in December 2022 that no Russian ships would have access to its waters.

On a municipal level, prospects for cooperation also look grim. Western Arctic cities have been cutting twinning agreements with Russian cities, especially with Murmansk, where the mayor, Andrei Chibis, was particularly vocal in his support for the war and very active in looking for new recruits, promising extra monetary rewards to "patriots of the Arctic." And when it comes to cooperation between indigenous NGOs, the ICC no longer works with its Russian chapter. Sami organizations have also been divided, as some Sami leaders in Russia made pro-war statements, and in April 2022 the Saami Council suspended relations with Russian Sami organizations.

Turning inwards

Cooperation with Russia is now difficult, if not impossible, both within the Arctic Council and bilaterally. As a result, the Arctic has divided into two major parts, which are mainly turning inwards. The Western Arctic states are strengthening their camp, while Russia is focused on internal cooperation within the Russian Arctic. Russia is also looking for new external partnerships with non-Arctic states, particularly with China and India. There are rumors that Russia is thinking of setting up a new Arctic organization with these two countries.

Since the covid-19 pandemic and Russia's invasion of Ukraine, major Arctic conferences, such as the Arctic Circle or Arctic Frontiers, have grown, welcoming more participants for a wider range of discussions that connected scientists,

policymakers, businesses, academia, and indigenous peoples. Some diplomats and analysts believe that these platforms could be the beginning of a new type of organization with a more agile form of cooperation than the Arctic Council. The conferences are not constrained by strict agreements, fixed workgroups, or regular participants, and they do not happen behind closed doors. Instead, they provide an opportunity for various actors to network and set up events, putting the priorities of the many stakeholders on the agenda. In Nunavut, some see the increasing popularity of the Arctic Circle conference as an opportunity for greater visibility and a way to have their voices heard. In this spirit, the three Canadian Arctic premiers used the 2022 Arctic Circle Forum in Greenland as a platform to voice their pleas for more investment. The indigenous peoples of the Arctic have also regularly spoken there, raising the profile of the issues that most concern them and advocating for more inclusion.

However, the Arctic Circle insists it has no ambitions to replace the Arctic Council. It intends to be an agile conference that can foster inclusive discussion, but maintains that the Arctic Council should prevail and remain the key forum for cooperation in the region. The 2022 edition of the Arctic Circle conference was indeed inclusive in its participants, including for example a notable exchange between a NATO general and Chinese ambassador – not about the Arctic, but about Ukraine. But this spirit of inclusivity currently stops at Russia: in 2022, no Russian delegates were invited to Reykjavik for the event.

Meanwhile, despite the official pause of the Arctic Council, Russia organized multiple meetings under the banner of the organization. Alexei Chekunkhov, the minister of development of Russia's far east, argued that this makes sense as "half of the global Arctic is in Russia." Summing up Russia's chairmanship, foreign minister Sergei Lavrov reported that Russia organized over a hundred events. With the other Arctic Council members absent, these meetings have mostly aimed at internal coordination of Arctic activities within Russia. However, Russia has also been involving international partners from everywhere but the West. Moscow claimed that at one of the biggest Arctic events, its International Forum in St Petersburg, participants joined from over 80 countries. Moreover, in July 2022, Putin approved Russia's new naval doctrine, which stresses the importance of the Arctic for Russia's security, identifies NATO and the US as a threat, and foresees the development of the region as a "strategic resource base" in line with Russia's national interests. Following the invasion of Ukraine, Russia has been keen to reiterate its Arctic ambitions and determination to pursue its Arctic policies, regardless of what the West makes of them.

In this climate of dissociation and distrust, NATO is becoming an increasingly important actor. Finland is now a NATO member, and once Sweden joins, Russia will be the only Arctic state that is not part of the alliance. With its non-security focus and as the key institution in the Arctic, the Arctic Council managed to set a

cooperative agenda, which then dominated debates in the region, largely overshadowing security discussions. If the Arctic Council becomes less prominent, and especially if NATO becomes more important, this focus is likely to shift, and security considerations could soon dominate Western approaches to the Arctic. If this becomes the case, indigenous peoples will likely be excluded, as defense is still strictly the domain of national capitals. NATO and its member states need to prevent this and find a way to include the indigenous peoples in security and defense discussions, by ensuring they are represented in meetings and liaising with local governments.

As the Western Arctic works together more closely, there is much more room for transatlantic cooperation beyond NATO. European Arctic states run many projects together, focusing on culture, education, research, and business, and the EU's growing interest in the region is likely to give birth to even more initiatives. However, there is significantly less cooperation between the north American and the European Arctic.

Nunavut is also looking for new forms of cooperation with Greenland. Discussions with the people of Nunavut reveal their desire to work more closely with Greenland, increase opportunities for cultural and business partnerships, and strengthen their common Inuit identity. However, an invisible wall runs through Baffin Bay. There are no regular transport connections between Nunavut and Greenland, apart from the occasional charter flight. While Nunavut has developed its institutions and policies in line with those from other parts of Canada, some say that it has more in common with Greenland than it does with any other part of Canada. Culturally this is perhaps true and some cultural projects exist between the two, but otherwise there are few political or societal exchanges. Nunavut is rooted in the Canadian system and Greenland has fixed links to Europe.

There seems to be a will to change this on the part of the political leadership too: in August 2022, Nunavut and Greenland signed a new memorandum of understanding. The prime minister of Greenland emphasized the need for cooperation, saying "Our Inuit voice, our traditions and our modern Arctic technical knowledge should be shared among us, ensuring our right to development". Although some analysts worry that this memorandum is just a symbolic step, there are now plans to establish a regular commercial flight connection between Greenland and north America. This was attempted before but failed, as there was not a strong business case for it. If the connection endures, it could stimulate Inuit relations and encourage tourist travel, helping both economies. If Nunavut and Greenland work more closely together, it could also strengthen the position of the Inuit on the international stage and the foreign policy of the regional governments.

Turning a negative into a positive

The war in Ukraine has shaken Arctic governance. It has highlighted the strategic importance of the region and the value of its people. Previously all sides were determined to maintain the Arctic as an exceptional zone of peace and the Arctic Council existed to steer energy towards cooperation. The inclusion of the indigenous peoples in this endeavor was both an innovation and an achievement, no doubt contributing to the cooperative spirit. With the future of the Arctic Council now uncertain, a paradoxical situation has emerged where despite their growing importance in the strategically important Arctic region, the indigenous peoples risk losing their most effective platform.

Even if the Arctic Council manages to work with Russia in some form, cooperation is unlikely to be smooth in the years to come. The West and Russia are now divided by such a deep rift of interests and values that it is difficult to imagine constructive cooperation in any domain.

However, these new circumstances do present certain opportunities. Local, northern governments such as those in Greenland and Nunavut have the chance to gain more recognition and space to act and develop. Western Arctic countries can work even more closely together and involve indigenous peoples more than ever before. While it is easy to fear that the coming years are set to be wasted when it comes to Arctic cooperation, doubling down on the involvement of and investment in indigenous peoples and regional governments is the best way to turn a negative into a positive, strengthening Europe's unity and values-based foreign policy in the region. To do so, European Arctic states should consider pursuing the following recommendations.

'Nothing about us without us': Involve indigenous peoples in policymaking

By adopting the motto 'nothing about us without us', Arctic communities are demanding their right to be equal partners in shaping their region. So far, the Arctic Council was the key forum for their involvement. Regardless of the future of the Arctic Council and whether it remains the key Arctic organization, European Arctic states should work with the US and Canada to ensure that indigenous peoples and local governments are represented in discussions about Arctic governance and support their involvement in policymaking, including on increasingly relevant security issues. They should ensure indigenous participation in any emerging Arctic formats and encourage bilateral meetings between regional and central governments. Given that NATO is likely to play a greater role in the region, it will be particularly important to involve the local populations in security and defense discussions, even if they have not been involved before.

Overcome the legacy of colonization and discrimination

Colonization still weighs on relations between the people of the Arctic and national governments, and the latter are in some cases still responsible for continued institutional discrimination against indigenous peoples. Increased focus on the Arctic

combined with Western support for Ukraine's anti-colonial fight are an opportunity for Western governments to overcome this. Increasing investment, improving healthcare, promoting education and indigenous languages, and continuing reconciliation efforts would all be important steps in this direction. Increasing the involvement of indigenous peoples in decision-making processes at all levels, as well as granting them greater powers in self-governance, will be key. In the case of Greenland, this could lead to full independence, once it is financially capable.

Invest in the north

Arctic territories of Western states have long suffered from under-investment which, alongside other colonial policies, puts the indigenous peoples at a disadvantage. Today, investing in the Arctic is crucial for the region's development and the well-being of its people. This must not be limited to updates in military installations, but rather focus on creating new economic opportunities and promoting sustainable development. The Arctic is a region with vast potential, and investments in sectors such as renewable energy, tourism, transport and shipping, housing, and food security can help create new jobs and protect the population from the worst disruptions resulting from climate change.

Strengthen cooperation between the European and the American Arctic

There is room for much more cooperation among the Western Arctic states, especially between the north American and the European Arctic. There is also a clear willingness to do so among the indigenous population, notably in Nunavut and Greenland. In order to strengthen cooperation, European governments and the EU should focus on pursuing and incentivizing new cultural, research, and investment projects across Baffin Bay and the Atlantic. They should also support efforts to establish a flight connection between Greenland and Canada, which would help boost relations between the territories. Before Russia's full-scale invasion of Ukraine, European states pursued numerous partnerships with Russia. This energy and investment can now be directed towards other Western Arctic states.

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