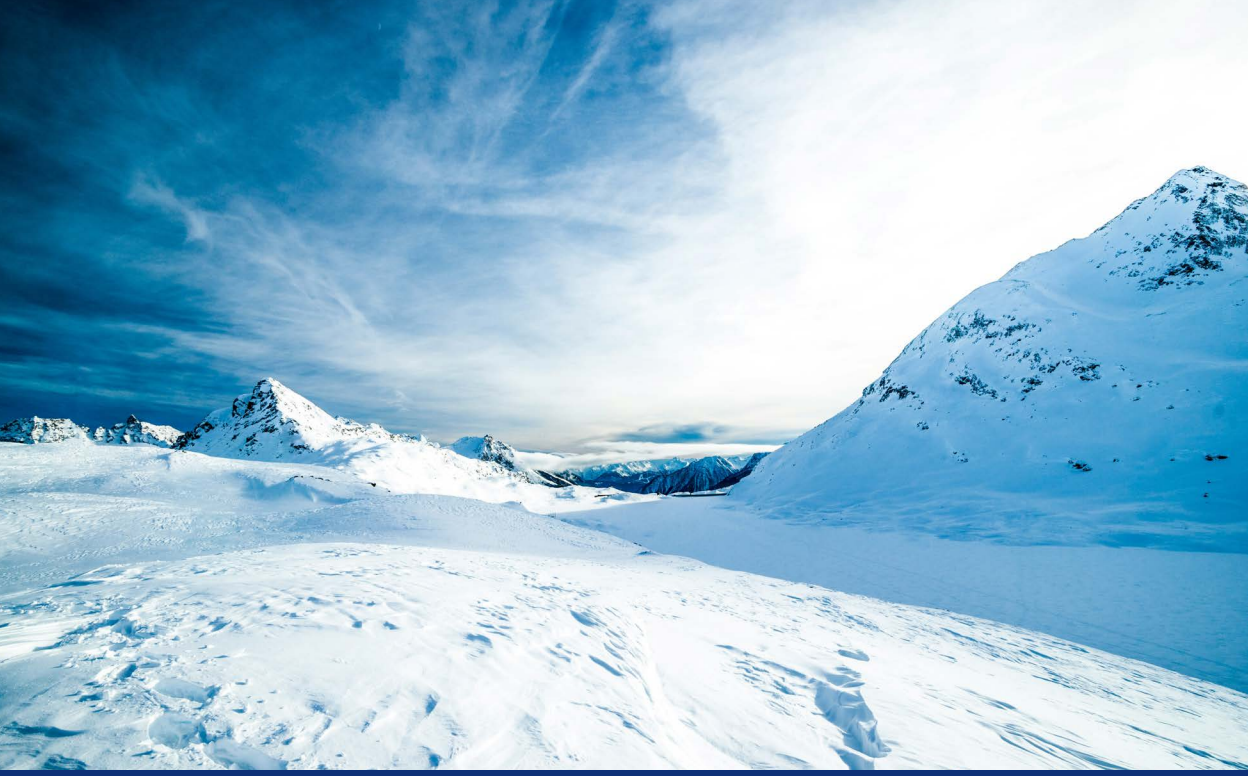

The "New" Frontier

Sino-Russian Cooperation in the Arctic and its Geopolitical Implications

Edited by

Niklas Swanström &

Filip Borges Månsson

Special Paper | September 2025

Institute for Security & Development Policy

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Contents

Abstract

This book examines Sino-Russian relations in the Arctic and forms part of a series of research projects at the Institute for Security and Development Policy (ISDP). Its aim is to enhance understanding of the extent to which Russia and China cooperate across different policy areas. Although the Arctic remains highly relevant in global geopolitics, it has been largely neglected in recent years due to Russia's invasion of Ukraine and other militarized conflicts. This volume brings together insights from 12 scholars with diverse areas of expertise, offering both a broad and indepth perspective on the region and the dynamics of Sino-Russian cooperation, or lack thereof.

- The findings and recommendations can be summarized under four key points to support the maintenance of a peaceful Arctic, notably, but not limited to:
- Promoting inclusive and pragmatic dialogue on Arctic governance
- Enhancing communication, transparency, and military deconfliction mechanisms
- Recognizing the Arctic's interconnectedness with other parts of the world and deepening cooperation with Indo-Pacific and Global South partners
- Leveraging economic and scientific tools to influence strategic alignments

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List of Abbreviations

ADIZ	Air Defense Identification Zone
BRI	Belt and Road Initiative
CNOOC	China National Offshore Oil Corporation
CNPC	China National Petroleum Corporation
CRM	Critical Raw Materials
DoD	Department of Defense
DPP	Democratic Progressive Party
EU	European Union
FSRU	Floating Storage and Regasification Unit
GHG	Greenhouse Gas
LNG	Liquefied Natural Gas
NATO	North Atlantic Treaty Organization
NSR	Northern Sea Route
PGM	Platinum-Group Metals
PLA	People's Liberation Army
PLAN	People's Liberation Army Navy
PRC	Peoples Republic of China
PSR	Polar Silk Road
REE	Rare Earth Elements
SSBN	Ship, Submersible, Ballistic, Nuclear (or commonly ballistic missile submarine)
US	United States

1. Introductory Chapter

Niklas Swanström and Filip Borges Månsson

It is almost tautological to say that the Arctic is a region defined by its extreme conditions, remarkable natural beauty and significant ecological and geopolitical importance, but we will start there. Spanning parts of eight countries – Canada, Denmark (Greenland), Iceland, Norway, Finland, Russia, Sweden, and the United States (Alaska) – the Arctic is traditionally defined as the area within the Arctic Circle, at approximately 66.5 degrees north latitude. In today's world and in recent history, the Arctic has been seen as a strategically significant region, notably due to the Northern Sea Route (NSR) that runs along the northern coast of Russia and connects the Atlantic and Pacific Oceans through the Arctic Ocean, from the Kara Sea along Siberia to the Bering Strait. Since the quest for a northern passage during the Age of Discovery in the 17th century, and the first successful navigation of the route in 1879 by Adolf Erik Nordenskiöld, the NSR has evolved into a potential commercial shipping route. Its development dates back to the Soviet era, when the NSR was established as a major domestic shipping route thanks to advances in icebreaking technology and improved Arctic infrastructure. Today, it stands as a testament to the strategic importance of Arctic navigation.

In the 21st century, significant reductions in Arctic Sea ice have made the NSR increasingly navigable. However, it remains far from a secure or reliable transit corridor due to unpredictable weather and geopolitical tensions. Despite these challenges, it has garnered global interest as a shorter alternative to traditional shipping lanes like the Suez Canal. The NSR can reduce the distance between Europe and Asia by up to 40 percent, leading to substantial savings in fuel, time, and costs for shipping companies. This potential has attracted international attention, with countries like China, Japan, and South Korea showing interest in utilizing the route for their maritime trade.

A Region in Turmoil?

Geopolitically, the Arctic has grown increasingly significant due to recent discoveries of vast reserves of oil, gas and minerals, which are likely to attract interest and potential exploitation by regional powers. For perspective, the Arctic is expected to contain around 22 percent of the world's remaining undiscovered natural gas and oil reserves, equivalent to 412 billion barrels of oil.[1] As global warming reduces sea ice, new shipping routes are emerging with the potential to transform global trade patterns and ease pressure on existing supply chains. These changes not only present economic opportunities, but also geopolitical challenges as nations and corporations vie for access and control in the regions.

The strategic significance of the NSR has raised geopolitical questions regarding sovereignty, security and environmental protection on an amplified scale. Russia continues to play a leading role in the Arctic. This is not a surprise, given that it borders 53 percent of the Arctic Ocean coastline, and is home to approximately 2.5 million people living in Arctic territory, accounting for nearly half the population living in the Arctic region.[2]

As a result, the efficient and sustainable development of the Arctic is one of the Russian Federation's top national priorities. Russia has been upgrading its Arctic infrastructure, including modernizing icebreaker fleets and ports in regions such as Murmansk[3] to support increased traffic and expedite its output of liquified natural gas (LNG). Additionally, Russia has also modernized its military infrastructure and intensified exercises and training operations. This has been done in line with Kremlin's ambitions to legitimize further involvement and engagement in the Arctic. This intent is reflected in official documents, including *The Basis of State Policy of the Russian Federation in the Arctic by 2035*

1 Kenneth J. Bird, et al., "Circum-Arctic Resource Appraisal; Estimates of Undiscovered Oil and Gas North of the Arctic Circle," U.S. Geological Survey Fact Sheet 2008-3049, version 1.0, July 23, 2008, http://pubs.usgs.gov/fs/2008/3049/.

2 The Russian Federation, "Arctic Council," n.d., https://arctic-council.org/about/states/russian-federation/.

3 Rosmoport Fsue, Arctic Basin Branch, n.d., "Development of Port Infrastructure Facilities and Fleet of the Arctic Basin Branch," Rosmorport.com, https://www.rosmorport.com/filials/mur_developmentofports/.

(2020),[4] *The Strategy of Developing the Arctic Zone of the Russian Federation and Ensuring National Security by 2035* (2020),[5] and *The Conception of Foreign Policy of the Russian Federation* (2023),[6] These policies emphasize strengthening military presence and nuclear capabilities in the Arctic, while also promoting economic development and the exploration of new resources. As the Arctic ice continues to recede, opening up new shipping lanes and prospects for resource extraction, the region is not only becoming more strategically importance but also increasingly prone tensions – and potentially, conflict – between Russia and NATO member-states.

In Russia's case, not only do vast natural gas and oil reserves lie within its Arctic economic zones, but the region also holds significant military strategic value. The shortest route for ballistic missiles targeting major population centers in North America is over the North Pole, making the Arctic a key location for air and missile emplacements. Thus, the Kremlin has been very keen on keeping a big chunk of its ballistic missile submarines (SSBNs) on the Kola Peninsula.[7] This enhances Russia's ability to protect its interests and maintain operational capacity in the North Atlantic and the European Arctic in the event of conflict escalation, or worse, with NATO states.

The People's Republic of China (PRC) has also sought to increase its influence in the Arctic. Its ambitions are driven by a strategic blend of economic, scientific, and military initiatives aimed at bolstering its influence and securing its interests

4 Kremlin, "The basis of State Policy of the Russian Federation in the Arctic by 2035," 2020, http://www.scrf.gov.ru/media/files/file/W5JeWAnrAyplMIMHXFRXEmQwLOUfoesZ.pdf.

5 Kremlin, "The strategy of developing the Arctic Zone of the Russian Federation and Ensuring National Security by 2035." 2020, http://www.scrf.gov.ru/media/files/file/hcTiEHnCdn6TqRm5A677n5iE3yXLi93E.pdf.

6 RgRU, "Decree of the President of the Russian Federation of March 31, 2023 No. 229,On approval of the Concept of Foreign Policy of the Russian Federation" [Указ Президента Российской Федерации от 31 марта 2023 года № 229 "об утверждении Концепции внешней политики Российской Федерации]," Российская газета, 2023. https://rg.ru/documents/2023/03/31/prezident-ukaz229-site-dok.html.

7 E. Rumer, R. Sokolsky, and P. Stronski, "Russia in the Arctic— A Critical Examination," Carnegie Endowment for International Peace, March 2021, 6, https://carnegie-production-assets.s3.amazonaws.com/static/files/Rumer_et_al_Russia_in_the_Arctic.pdf.

in the region. Beijing views itself as an important stakeholder in Arctic affairs, and defines itself as a geographically "near-Arctic state" due to its proximity to the Arctic Circle.

Consequently, the PRC sees views the changing conditions in the Arctic as having a direct impact on its climate and ecological environment, which in turn impacts economic sectors such as agriculture, fishery, scientific research and maritime industry, sectors in which the PRC seeks to play a prominent role in. This strategic interest is clearly articulated in China's 2018 Arctic White Paper[8] and reinforced in the 14th Five-Year Plan, which, for the first time, explicitly references the Arctic. Notably, the Arctic is discussed under the themes of maritime governance and economic development,[9] signaling a broader geopolitical vision and underlining China's intent to participate in shaping Arctic governance.

An example of this vision is found in the "Polar Silk Road," a component of China's Belt and Road Initiative (BRI). It aims to establish new routes through the Arctic Ocean, enhancing global trade connectivity and promoting Arctic exploration. A key motivation for PRC's Arctic ambitions is the economic potential of the Northern Sea Route (NSR). For example, a trip from Dalian, China, to Rotterdam, Netherlands via the NSR takes around 33 days, compared to 48 days through the Suez Canal.[10]

Russia has welcomed this collaboration, with President Vladimir Putin acknowledging the alignment of the NSR with Chinese projects. More importantly, Russia's full-scale invasion of Ukraine has isolated it from the seven other Arctic nations, all now members of the North Atlantic Treaty

8 State Council Information Office of the People's Republic of China, "China's Arctic Policy," January 2018, https://english.www.gov.cn/archive/white_paper/2018/01/26/content_281476026660336.htm.

9 T. T. Martins, "Arctic ambitions: China's engagement with the Northern Sea Route," The Diplomat, November 24, 2023, https://thediplomat.com/2023/11/arctic-ambitions-chinas-engagement-with-the-northern-sea-route/#:~:text=China's%20interest%20is%20branded%20as,connectivity%20and%20promoting%20Arctic%20exploration.

10 Ibid.

Organization (NATO), and made it more dependent on the PRC. This growing dependency is further illustrated by joint military exercises in the Bering Sea, such as those conducted in 2022, which demonstrate the deepening strategic partnership between Russia and China in the Arctic.[11]

Due to the Russian invasion of Ukraine, Russia has effectively been isolated, particularly through Western-led blockades of its participation in the Arctic Council and a necessary halt in cooperation with Russian institutions. While Russia's absence has increased the tensions and made constructive talks virtually impossible, from a broader perspective, this response by the Arctic states is justified. Unintentionally, however, this has created opportunities for China to deepen its engagement with Russia in the Arctic, not only as a provider of strategic resources and joint scientific research, but also in terms of naval cooperation and as an export destination.

When discussing current Arctic issues and Sino-Russian cooperation, key topics include, but are not limited to:

- The prospects of Russia and the PRC strengthening their maritime capabilities and expanding their presence in the Arctic.
- How joint collaboration between Russia and the PRC might affect existing territorial claims and boundary disputes in the Arctic? Could such initiatives increase the risk of conflict escalation, or conversely contribute to resolving current issues?
- How will the management and control of the NSR be shared or contested between Russia and the PRC? Can existing mechanisms ensure fair usage and continued access for other Arctic and non-Arctic nations?
- Will industrial activities and resource extraction by Russia and the PRC further harm the already fragile Arctic ecosystem? How can the Arctic Council collaborate to prevent such outcomes?

11 J. Gronholt-Pedersen, and G. Fouche, "Dark arctic: NATO allies wake up to Russian supremacy in the region," Reuters, November 16, 2022, https://www.reuters.com/graphics/ARCTIC-SECURITY/zgvobmblrpd/.

- Can Russia and the PRC balance their economic ambitions in the Arctic with their responsibilities toward climate change mitigation? What are the socio-economic implications of their industrial and infrastructural development on Arctic indigenous communities?
- Most importantly, how will (or can) NATO and the Western Arctic states respond to a growing Russia-PRC partnership in the Arctic? Will the shifting security dynamics lead to increased militarization and conflict escalation, or can the Arctic Council still play a central role in maintaining peaceful dialogue between all parties through established mechanisms and policies?

These are some of the key questions this book seeks to address, By providing a comprehensive overview and presenting different perspectives on the securitization of the Arctic, the book aims to deppen our understanding of why the Arctic matters to so many different nations, and why maintaining a peaceful Arctic is more important than ever before.

The shifting geostrategic environment coupled with climate change has pushed Arctic actors to implement alternative strategic approaches to the region. The United States, for example, presented a new Arctic Strategy in June 2024, aimed at strengthening its deterrence capabilities and managing risks to U.S. The strategy emphasizes increased engagement with key allies and exercising what the DoD calls "Tailored Presence" in the Arctic.[12] More importantly, the strategy acknowledges the growing cooperation between the PRC and Russia in the Arctic, which could alter the security dynamics and further destabilize the region.

Additionally, as the Arctic becomes more accessible and strategically important, several areas of concern are emerging amid rising regional tensions. Global communication cable networks and satellite systems such as GPS are placed and positioned around the Arctic. In an era where global digitalization and

12 U.S. Department of Defence, "2024 Arctic Strategy," 1, https://media.defense.gov/2024/Jul/22/2003507411/-1/-1/0/DOD-ARCTIC-STRATEGY-2024.PDF.

connectivity plays a critical role, it might become more difficult for members of the Arctic Council to secure and maintain these cables, given the harsh environmental conditions. Rising tensions between Arctic and non-Arctic states further elevate the risk of international sabotage, disruption or exploitation. Such incidents can not only impact global trade due to the reliance on fast communication by the financial markets, but also local communities and global operations that rely on these systems, including military communications, emergency response, cyber security and intelligence gathering. Disruptions have occurred before in 2022, and with NATO officials believing that Russia has had a program to map out undersea infrastructure, undersea cables are believed to be at great risk in case of conflict escalation. Meanwhile, Russia is developing its own undersea infrastructure, notably the Polar Express cable linking Vladivostok to Murmansk.[13] Given China's increasing interest in the Arctic maritime governance, it is plausible that the PRC would invest into either the project or its own under water infrastructure in collaboration with Russia. This would in turn also open the door for increased collaboration on Arctic-related intelligence, surveillance and monitoring in order to safeguard both Russia and PRC's interests in the Arctic.

Moreover, an often overlooked issue is that the increasing tensions, presence, and ambitions of major powers in the Arctic can have profound implications for the indigenous populations who currently reside in the region. Indigenous communities, whose cultures, livelihoods, and traditions are intricately linked to the Arctic environment,[14] face significant challenges in conjunction with the accelerating pace of industrial development and geostrategic competition. The intensified exploitation of natural resources and the opening of new shipping routes risk causing socio-economic and cultural displacement. Furthermore, the environmental degradation resulting from increased human activity poses severe

13 A. M. Middleton, and B. Rønning, "Geopolitics of subsea cables in the Arctic," The Arctic Institute, Center for Circumpolar Security Studies, August 2022, https://www.thearcticinstitute.org/geopolitics-subsea-cables-arctic/.

14 Shaugn Coggins, James D. Ford, et al., "Indigenous Peoples and Climate Justice in the Arctic," February 2021, Georgetown Journal of International Affairs, https://gjia.georgetown.edu/2021/02/23/indigenous-peoples-and-climate-justice-in-the-arctic/.

risks to the fragile Arctic ecosystem on which indigenous communities depend for subsistence. Adhering to international frameworks like the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and ensuring the meaningful participation of indigenous representatives in decision-making processes related to Arctic governance is arguably more important than ever, given that Arctic and non-Arctic actors continue to expand their presence and interests in the region.

As Russia's invasion of Ukraine continues, with Arctic states such as Sweden and Finland joining NATO, and the PRC expanding its Arctic presence in partnership with Russia, the western Arctic states are striving to enhance their capabilities to match those of the region's dominant power. It is increasingly evident that a militarization of the Arctic is taking place, and that the potential for conflict necessitates a re-evaluation of international frameworks and agreements governing the region.

In a geopolitical landscape marked by strategic partnerships and increased (global) competition, robust and adaptive policy responses are required to ensure stability and cooperation in a region that has long served as a zone of peace and collaboration. The Arctic Council's role in promoting these values is thus also at stake here. The question is whether the Council can take the necessary steps to maintain and promote peaceful collaboration and enhance mechanisms for conflict prevention, thereby reinforcing its position as a platform for transparency and mutual trust between Arctic and non-Arctic states.

2. Russia-China Arctic Security Cooperation: Countering a U.S. Threat?

Pavel Devyatkin

Introduction

After the growth in Russia-China joint coast guard, bomber plane and warship exercises in and around the Arctic in recent years, international policymakers and analysts are more frequently asking: what constitutes Russia and China's Arctic relationship in security-related affairs? This chapter examines the official discourse on Sino-Russian security cooperation in the Arctic and draws on officials' statements and media reporting to present Russian and Chinese stances on this question.

There is no official alliance between Russia and China, but officials from the countries have emphasized their relationship as a "comprehensive strategic partnership of coordination in a new era."[1] The Russia-China relationship can thus be called a strategic partnership, but not a formal alliance. China's only mutual defense treaty is with North Korea, while Russia has a similar defense pact with North Korea as of 2024 (in addition to other defense agreements such as the CSTO).[2] In 2014, Russian President Vladimir Putin called Russia and China "natural partners, natural allies,"[3] while in 2019

1 Vasily B. Kashin, "Russia and China: Evolution of Strategic Partnership," PIR Center, April 15, 2024, https://pircenter.org/en/editions/security-index-yearbook-chapter-10-russia-and-china-evolution-of-strategic-partnership/.

2 Jae-kwan Kim, "Recent Changes and Prospects in the China-Russia-North Korea Triangle and the Three Bilateral Relationships," *Analyses & Alternatives* 8, no. 3 (2024): 7–44, https://doi.org/10.22931/aanda.2024.8.3.001. "Recent Changes and Prospects in the China-Russia-North Korea Triangle and the Three Bilateral Relationships."

3 Vladimir V. Putin, "Meeting with Premier of the State Council of the People's Republic of China Li Keqiang [Встреча с Премьером Госсовета КНР Ли Кэцяном]," The Kremlin, October 14, 2014, http://special.kremlin.ru/events/president/news/46783.

he called Russia-China relations "an allied relationship in the full sense of a multifaceted strategic partnership."[4] Chinese leader Xi Jinping has never called the relationship an alliance. Putin has expressed that the two countries are drawn together in part because of "the U.S. policy of simultaneously deterring Russia and China."[5]

2024 Sino-Russian Exercises

In 2024, Russia and China achieved significant milestones in their security cooperation in the Arctic. Their joint military activities, which include bomber exercises near Alaska, coast guard drills, and collaborative efforts between their naval and air forces, received considerable attention from media and analysts. The Russian and Chinese militaries and coast guards have been conducting joint exercises since the mid-2000s in various locations such as the Mediterranean Sea, Sea of Japan, and Baltic Sea, but these recent Arctic operations have raised concerns among Western officials and experts.[6] This anxiety stems from the exercises' Arctic location and their closeness to Alaska.

In 2024, Russian and Chinese bombers conducted joint drills over the Chukchi and Bering Seas and the northern Pacific Ocean, marking the eighth patrol since 2019 and the first within Alaska's Air Defense Identification Zone (ADIZ).[7] These exercises took place in international airspace within the region defined as the Arctic under the U.S. Arctic Research and Policy Act. In 2024, the Russian Navy and the People's Liberation Army Navy carried out their largest

4 Vladimir V. Putin, "Meeting of the Valdai Discussion Club [Заседание дискуссионного клуба «Валдай»]," The Kremlin, October 3, 2019, http://kremlin.ru/events/president/news/61719.

5 Vladimir V. Putin, "Russia and China-a Partnership looking to the future [Статья Владимира Путина в «Жэньминь Жибао» «Россия и Китай – партнёрство, устремлённое в будущее»]," March 19, 2023, http://kremlin.ru/events/president/news/70743.

6 Lei Yu and Sophia Sui, "China-Russia Military Cooperation in the Context of Sino-Russian Strategic Partnership," *Asia Europe Journal* 18, no. 3 (September 1, 2020): 325–45, https://doi.org/10.1007/s10308-019-00559-x.

7 "Russian and Chinese planes conducted joint patrols off Alaska [Российские и китайские самолеты провели совместное патрулирование у Аляски]," *RIA Novosti*, July 25, 2024, https://ria.ru/20240725/tu-95ms-1961882698.html."; Natasha Bertrand and Oren Liebermann, "NORAD Intercepts Russian and Chinese Bombers Operating Together near Alaska in First Such Flight," *CNN*, July 25, 2024, https://www.cnn.com/2024/07/24/politics/norad-russian-chinese-bombers-alaska.

joint naval exercises since the 1990s, dubbed 'Ocean-2024'. The return of such "Cold War-era practices" was reported by Russian media as a response to rising tensions with the U.S.. These exercises spanned the Pacific and Arctic Oceans, as well as the Mediterranean, Caspian, and Baltic Seas.[8] The Russian Ministry of Defense stated that the exercises aimed to assess the readiness of military formations and enhance collaboration with partner navies.[9] In response, the U.S. Army deployed troops and rocket launchers to Alaska's farthest reaches as a show of force.[10]

Chinese Coast Guard and Russian Border Service vessels also conducted a joint maritime patrol in the northern Pacific Ocean, with the Chinese Coast Guard entering the Arctic Ocean for the first time.[11] The Chinese Coast Guard announced that the patrol aimed to expand their operational range in unfamiliar waters and support international and regional ocean governance.[12]

Russia-China Arctic Cooperation

The joint coast guard exercises are being undertaken as per the 2023 'Memorandum of Understanding on Strengthening Maritime Law Enforcement Cooperation'. The Chinese Coast Guard and the Russian Federal Security Service (FSB) signed the MoU in the northern Russian city of Murmansk, affirming Russia and China's aims to cooperate in sea-based rescue operations

8 Vladimir Kulagin, "Russia has started the largest naval exercises in 30 years together with China [Россия начала самые масштабные морские учения за 30 лет вместе с Китаем]," *Vedomosti*, September 11, 2024, https://www.vedomosti.ru/politics/articles/2024/09/11/1061436-rossiya-nachala-morskie-ucheniya-vmeste-s-kitaem.

9 Ministry of Defense of the Russian Federation, "Ships of the Northern Fleet Repelled an Air Raid in the Barents Sea as Part of Okean-2024 [Корабли Северного Флота в Рамках СКШУ «Океан-2024» Отразили Воздушный Налёт в Баренцевом Море]," September 11, 2024, https://function.mil.ru/news_page/country/more.htm?id=12528751@egNews.

10 Mark Thiessen, "Army Deploys to Alaska Island amid Rise in Russian Military Activity," *Army Times*, September 18, 2024, https://www.armytimes.com/news/your-army/2024/09/18/army-deploys-to-alaska-island-amid-rise-in-russian-military-activity/.

11 Meredith Chen, "China's Coastguard Takes Part in First Arctic Patrol with Russia," *South China Morning Post*, October 2, 2024, https://www.scmp.com/news/china/diplomacy/article/3280832/chinas-coastguard-takes-part-first-arctic-patrol-russia.

12 China Coast Guard, "A Formation of Chinese and Russian Maritime Police Ships Arrives in the Arctic Ocean [中俄海警舰艇编队抵达北冰洋]," October 2, 2024, https://www.ccg.gov.cn/gjhz/202410/t20241002_2486.html.

and law enforcement.[13] Vladimir Kulishov, Head of the FSB Border Service, said that "in the interests of jointly countering emerging threats emanating from the United States… we are improving interaction with partners from friendly states" and went on to discuss the 2023 memorandum with China's Coast Guard.[14] This comment may suggest that Russian practitioners orient their cooperation with China as a countermeasure to the United States. However, Kulishov says this orientation is an imperative after Russia's isolation from international coast guard cooperation under the auspices of the North Pacific Coast Guard Forum and Arctic Coast Guard Forum. Kulishov said Russia is working with "friendly states" like China after the United States and Canada curtailed their coast guard relations with Russia in connection with the war in Ukraine. The Chinese Coast Guard announced in 2024 that it would "carry out bilateral and multilateral maritime law enforcement cooperation and actively participate in international and regional maritime governance."[15]

In 2024, Russian and Chinese officials Mikhail Mishustin and Li Qiang emphasized that their Arctic cooperation is not confrontational and is not directed against third countries. The officials issued a joint communique, which focused on collaboration in Arctic transport, maritime safety, and ecological protection—areas involving coast guard and security services.[16] In September, during talks in Beijing, the two nations discussed advancing joint

13 China Coast Guard, "The China Maritime Security Bureau and the General Administration of Security of the Russian Federation Signed a Maritime Law Enforcement Cooperation Document [中国海警局和俄罗斯联邦安全总局签署海上执法合作文件 – 海警要闻]," April 27, 2023, https://www.ccg.gov.cn/hjyw/202405/t20240515_1111.html.

14 Federal Security Service of the Russian Federation, "Interview with the First Deputy Director-Head of the Border Guard Service of the Federal Security Service of Russia [Интервью Первого Заместителя Директора – Руководителя Пограничной Службы ФСБ России]," May 28, 2024, http://www.fsb.ru/fsb/press/message/single.htm%21id%3D10440008%40fsbMessage.html.

15 Feng Xiong, "The Chinese Naval Police Ship Formation Successfully Completed the 'Pacific Cruise—2024' Sino-Russian Naval Police Joint Performance and Joint Patrol [中国海警舰艇编队圆满完成‘太平洋巡航—2024’中俄海警联演联巡 – 中华人民共和国国防部]," Ministry of National Defense of the People's Republic of China, October 17, 2024, http://www.mod.gov.cn/gfbw/jsxd/ly/16346079.html.

16 Government of Russia, "29th regular meeting of the Heads of Government of Russia and China [29-я регулярная встреча глав правительств России и Китая]," August 21, 2024, http://government.ru/news/52427/.

energy projects, scientific research, and transport initiatives, like developing the Northern Sea Route, emphasizing a comprehensive strategic partnership amid new geopolitical conditions.[17]

The Russian and Chinese Navy Chiefs also signed a memorandum of understanding to cooperate in search and rescue at sea "in the interests of security and stability in the World Ocean" in 2024.[18] Sino-Russian joint land forces exercises began in 2005, followed by joint naval exercises in 2012 and joint air exercises in 2019.[19] In general, the two countries' armed forces have openly cooperated in many regions around the world.

After the 2024 Pentagon Arctic Strategy drew attention to the threat of Russia-China collaboration to Arctic stability, Putin's press secretary Dmitry Peskov criticized the assertions, saying that "Russian-Chinese cooperation in the Arctic zone [is] never directed against any third countries or a group of third countries," and only contributes to stability in the region.[20] Russia's Ambassador to Norway Nikolay Korchunov similarly said that Russian-Chinese Arctic cooperation does not lie in the military dimension and that "Sino-Russian joint exercises exclusively occur in the Pacific region. Attempts to somehow associate it with the Arctic have no ground."[21]

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17 Ministry of Foreign Affairs of the Russian Federation, "On the Russian-Chinese Inter-Ministerial Consultations on the Arctic [О Российско-Китайских Межмидовских Консультациях По Арктике]," September 26, 2024, https://mid.ru/ru/foreign_policy/news/1971799/.

18 Ministry of Defense of the Russian Federation, "The Commander-in-Chief of the Russian Navy and the Commander of the PLA Navy Signed a Memorandum of Understanding and Cooperation in the Field of Search and Rescue at Sea [Главнокомандующий ВМФ России и Командующий ВМС НОАК Подписали Меморандум о Взаимопонимании и Сотрудничестве в Области Поиска и Спасания На Море]," April 21, 2024, https://structure.mil.ru/structure/forces/navy/news/more.htm?id=12509929@egNews.

19 Guihai Guan, "Thirty Years of China–Russia Strategic Relations: Achievements, Characteristics and Prospects," *China International Strategy Review* 4, no. 1 (June 2022): 21–38, https://doi.org/10.1007/s42533-022-00101-6.

20 Elena Chernenko and Karine Sepoyan, "Super Cold War [Суперхолодная война]," *Kommersant*, July 23, 2024, https://www.kommersant.ru/doc/6851028.

21 Astri Edvardsen, "Russia's Ambassador to Norway Warns of Political Vacuum in the Arctic Region," *High North News*, December 27, 2024, https://www.highnorthnews.com/en/russias-ambassador-norway-warns-political-vacuum-arctic-region.

The view is shared by the Chinese Ministry of Foreign Affairs, whose spokesperson, Mao Ning, criticized the Pentagon Strategy and said that China is "committed to promoting peace, stability and sustainable development of the Arctic."[22] Zhang Xiaogang, a spokesperson for the Chinese Ministry of Defense said the 2024 coast guard patrol with Russia "deepened strategic mutual trust and substantive cooperation between the two militaries, does not target any third party, is in line with relevant international law and practices, and has nothing to do with the current international and regional situations."[23] Meanwhile, China's Defense Minister Dong Jun stressed that China supports Russia, understands that the United States is trying to isolate Russia, and will not abandon its support for Russia despite US pressure on China.[24]

A military component to Sino-Russian Arctic cooperation is consistently repudiated in rhetoric from the two governments' spokespeople. It is evident that the governments purposely refrain from presenting Arctic military cooperation as a show of force against the United States. Such intentions would legitimize U.S. and NATO military activities in the region and may lead to a security dilemma, where states try to outpace each other in the defense of their interests in the region.[25]

Conclusions and Policy Recommendations

The rhetoric from officials of the two states demonstrate that Russia and China are increasing, not decreasing, their security-related cooperation in the Arctic.

22 Ministry of Foreign Affairs of the People's Republic of China, "Foreign Ministry Spokesperson Mao Ning's Regular Press Conference," July 23, 2024, https://www.mfa.gov.cn/eng/xw/fyrbt/lxjzh/202407/t20240730_11463266.html.

23 Ministry of National Defense of the People's Republic of China, "Regular Press Conference of the Ministry of National Defense," August 1, 2024, http://eng.mod.gov.cn/xb/News_213114/NewsRelease/16328897.html.

24 "China will not abandon Russia's support on the Ukrainian issue, despite US pressure [КНР не откажется от поддержки РФ по украинскому вопросу, несмотря на давление США]," *TASS*, January 31, 2024, https://tass.ru/mezhdunarodnaya-panorama/19864301.

25 "Kosachev believes that NATO's claims to a special role in the Arctic threaten the interests of Russia and China [Косачев считает, что претензии НАТО на особую роль в Арктике угрожают интересам РФ и Китая]," *TASS*, August 25, 2022, https://tass.ru/politika/15564323.

However, such exercises are officially not aimed at third countries and within the framework of international law. China does not have a permanent military presence in the region and is unlikely to pursue one that could rival Russia's military complex.[26] China does not have the military-technical capabilities to conduct full-fledged military operations in the Arctic.[27] So far, China's military presence in the Arctic has been limited to joint exercises in waters on the outskirts of the Arctic Circle and far from Russia's Arctic coast. Depending on how we define the Arctic, some of these activities are not even within the Arctic Circle. The Arctic will continue to occupy an important role in Sino-Russian relations and the Arctic strategic triangle.[28] With the re-election of Donald Trump, the U.S. will likely continue to negatively view Russian and Chinese security cooperation in the Arctic. Trump has said he would try to "un-unite" Russia and China.[29] Trump administration officials see the Arctic as a potential region to "drive a wedge between Moscow and Beijing."[30]

Recommendations for policymakers include prioritizing military-to-military dialogue in the region to avoid unintended incidents, collisions and crises. There is a dearth of meaningful security-related cooperation that is crucial for maintaining stability. This includes consistent and official military-to-military communication, confidence-building measures, joint military exercises that include adversaries as observers, an enhanced Automatic Identification System,

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26 P. Whitney Lackenbauer, Adam Lajeunesse, and Ryan Dean, "Why China Is Not a Peer Competitor in the Arctic," *Journal of Indo-Pacific Affairs*, September-October 2022, https://www.airuniversity.af.edu/JIPA/Display/Article/3172586/why-china-is-not-a-peer-competitor-in-the-arctic/.

27 Pavel A. Polonchuk, P"Prospects for the Military and Political Presence of the PRC in the Arctic [Перспективы Военно-Политического Присутствия КНР в Арктике]," *Ethnosocium* 6, no. 180 (2023): 102–13.

28 Pavel Devyatkin, "The Arctic Strategic Triangle: United States—China—Russia Competition and Cooperation," In *China-Russia Relations in the Arctic: Friends in the Cold?* edited by Iselin Stensdal and Gørild Heggelund, 57–79 (Cham: Springer Nature Switzerland, 2024), https://doi.org/10.1007/978-3-031-63087-3_4.

29 Stefan Wolff, "Dysfunctional Love Triangle: Trump Seeks to Split Moscow, Beijing," *Asia Times*, November 12, 2024, https://asiatimes.com/2024/11/dysfunctional-love-triangle-trump-seeks-to-split-moscow-beijing/#.

30 Natalia Drozdiak and Alberto Nardelli, "US, Russia Mull Cooperation on Arctic Trade Routes, Exploration," *Bloomberg*, February 26, 2025, https://www.bloomberg.com/news/articles/2025-02-26/us-russia-mull-cooperation-on-arctic-trade-routes-exploration.

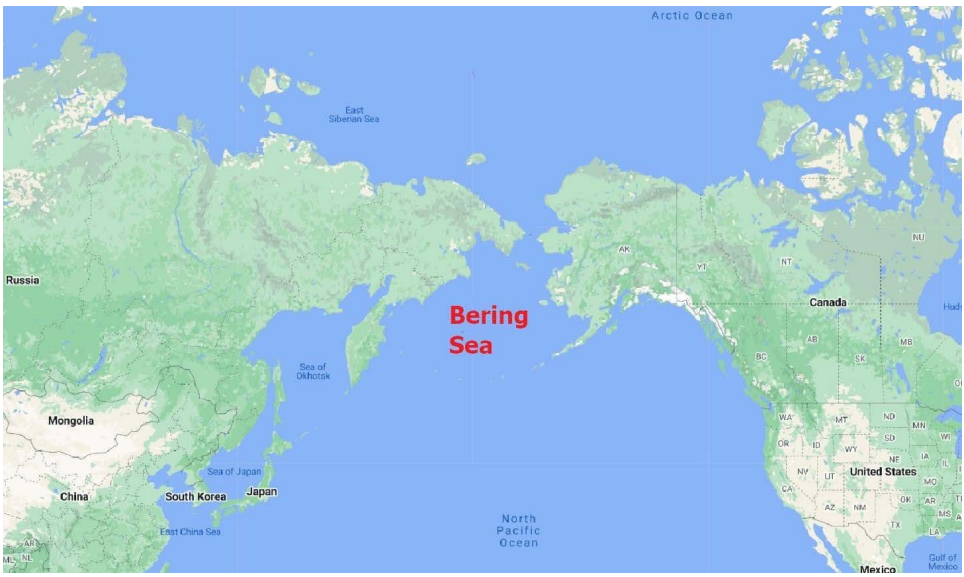
and other measures that improve transparency and safety of security-related activities. Commentators from the West and East emphasize the importance of restarting such activities, but the obstacles to restarting them are high.

3. Sino-Russian Partnership in the North Pacific Arctic

Elizabeth Wishnick[1]

When we think of Sino-Russian cooperation in the Arctic, typically we think of China's role in the Russian Arctic as an investor in fossil fuels and participant in shipping along the Northern Sea Route. In recent years, however, China also has been collaborating with Russia in the North Pacific Arctic (see Figure 3.1), a development that has important security implications as the two countries engage more frequently in coast guard and maritime patrols in the maritime chokepoint that is the Bering Strait.

Figure 3.1: ***The Arctic Viewed from the North Pacific***



Source: https://allfishes.org/fish-habitat/fauna-of-the-bering-sea/

1 The views expressed are those of the author and do not represent those of CNA or its sponsors.

Sanctions on Russian Arctic LNG ventures and now on the shadow fleet that has supplied China with fossil fuels, have led some major Chinese firms to pause their investments, if not to abandon them altogether. At the same time, China's economically lagging northeastern provinces have sought to develop infrastructure on Russia's Pacific coast to facilitate their own eventual participation in the Polar Silk Road.

This chapter explores four key drivers of Sino-Russian cooperation in the North Pacific Arctic. The first section examines why and how China's northeastern provinces engage with Russia in developing the infrastructure in the Russian Far East that will connect them to the Polar Silk Road. The second section addresses the development of cooperation between the Chinese and Russian coast guards in the North Pacific Arctic. The third section discusses the growing number of Sino-Russian military exercises in the Bering Sea. The fourth section looks at Russian and Chinese efforts to expand their access to the Arctic remotely by cooperating in satellite and undersea technology. By viewing the Arctic through a "North Pacific lens,"[2] China and Russia have been better able to circumvent the restrictions they encounter in the European Arctic and justify their own collaboration with a wider range of Indo-Pacific partners. Given the emphasis on security cooperation, including military exercises and cooperation between the PRC and Russian Coast Guards, Sino-Russian interactions in the North Pacific Arctic have security implications for the Euro-Atlantic Arctic. A final section proposes some policy recommendations for the Arctic Seven for greater engagement with Indo-Pacific partners in the North Pacific Arctic.

The Chinese Northeast and the Polar Silk Road

The domestic factor in China's interest in the Arctic has not attracted as much attention as geopolitics but the development of China's northeastern provinces—Heilongjiang, Jilin, and Liaoning—is an important driver of the

2 Oran R. Young and Jong-Deog Kim, "Introduction: Looking Far North through the North Pacific Lens," in Young and Kim (eds), *North Pacific Perspectives on the Arctic Looking Far North in Turbulent Times* (Cheltenham, UK: Elgar Publishers, 2024), xvii. A series of conferences by the East-West Center and the Korea Maritime Institute have developed a "North Pacific lens" on the Arctic.

country's Polar Silk Road. Their path to the Polar Silk Road is via the North Pacific and their infrastructure collaboration focuses on their near neighbors, Russia and North Korea. From their perspective, the Polar Silk Road via the Northeast Passage saves shipping time compared to the Suez Canal, which is not the case for southern Chinese ports.[3] Prior to the full-scale Russian war in Ukraine, Chinese scholars portrayed Northeast China as a potential "bridgehead" for the Polar Silk Road, involving Japan and South Korea, as well as Russia and North Korea.[4] Writing in 2024, scholars from Liaoning province envisage a more narrowly scoped land-sea corridor, leveraging their province's rail connections to Russia and maritime shipping potential via the Polar Silk Road. They view the route as a "must-go" for China, though they noted the numerous economic and geopolitical obstacles, especially since the full-scale war in Ukraine.[5]

The three Northeast Chinese provinces were the first to industrialize, but are now seen as laggards, requiring repeat visits from Xi Jinping to encourage them to try new approaches and technologies to boost their development and overcome their considerable disadvantages—high levels of debt, an industrial structure focused on state-owned heavy industries, an aging population,

3 A study of the viability of Arctic shipping, using Shanghai as the port of origin, found that the Northeast Passage route would not be competitive till 2065. See Adan Wu, Tao Che, Qingchao Xu, Jiping Wang, Jinlei Chen,and Xiaowen Zhu, "Assessing the economic viability of the Arctic Northeast Passage from 2021 to 2065," *International Journal of Digital Earth*, 17(1): 1–29. Chinese scholars, using Qingdao in Shandong province, 724 km north of Shanghai, as the most frequent port of origin for Chinese shipping to Europe through 2021 found the Polar Silk Road to be economically beneficial. See Meng Hu, Meng Cui and Maixiu Hu, "[Analysis of the Current Situation and Economic Benefits of Chinese Merchant Ship Passage Through the Arctic Northeast Passage]," *Haiyang Kaifa he Guanli* [Ocean Development and Management] 41, no. 4 (2024):18–30, http://www.haiyangkaifayuguanli.com/hykfyglen/ch/reader/view_abstract.aspx?file_no=20240402&flag=1.

4 Lianyi Zhou and Chuyuan Wen, "Zhongguo dongbeide diqu duijie "bingshang sichou zhilu"duice yanjiu [Study on the Countermeasures of Connecting Northeast China with the "Ice Silk Road]," *Shenyang Nongye Daxue Xuebao* [Shehui kexue ban] Journal of Shenyang Agricultural University (Social Science Edition) 22, no. 5:537–545.

5 Jingyu Li, Haidong Li, and Bohua Xiao, "Fahui Liaoning yanhai youshi chuangjian zhongguo dongbei fangxiang luhaidatongdao [Leveraging Liaoning's Coastal Advantages to Create A Major Land-Sea Channel In Northeast China]," July 8, 2024, https://www.kunlunce.com/e/wap/show2022cont.php?classid=161&id=179163.

and population outflow.[6] Their immediate neighbors—Russia and North Korea—have their own serious economic challenges and a similar economic structure. It is not surprising therefore that these three provinces have looked to China's Polar Silk Road as an opportunity to reach more lucrative markets and improve their economic position relative to China's southern coastal cities through foreign trade and related infrastructure. Each of the three provinces included the Polar Silk Road in their own five-year development plan for 2021, with land-locked Heilongjiang and Jilin hoping to open to the Arctic and collaborate with Russia in polar technologies, while Liaoning aims to make its port of Dalian, the largest in northeast China, a hub for Arctic shipping.[7]

Coast Guard Activity

Given the priority that China and Russia place on expanding their cooperation in the Northern Sea Route, it is only to be expected that they would also seek to enhance ties between their coast guards. However, their joint actions have not been limited to this waterway; in fact, the new cooperative agreement between the two coast guards enabled the Chinese Coast Guard to sail in the Bering Sea for the first time. On September 29, 2024, the U.S. Coast Guard spotted two Chinese Coast Guard ships and two Russian Coast Guard ships engaging in a joint patrol in the Bering Sea, the northernmost location that Chinese Coast Guard vessels have been observed.[8] According to a social media post by the Chinese Coast Guard, this was the first time its vessels sailed in the Arctic

6 Carol Yang, "China's Rust-Belt Regions At Risk Of Being Left Behind As Coastal Economies Surge," South China Morning Post, February 12, 2025, https://www.scmp.com/economy/china-economy/article/3298265/chinas-rust-belt-regions-risk-being-left-behind-coastal-economies-surge; "Full Revitalization of Enervated Northeast China Imperative For Country's Holistic Modernization," China Daily February 9, 2025, https://www.chinadailyhk.com/hk/article/604132; Keith Bradscher, "Slowing, Graying and in Debt, Can China's Industrial Heartland Be Revived?" The New York Times, September 26, 2023, https://www.nytimes.com/2023/09/26/business/china-economy-factories-liaoning.html.

7 Trym Eiterjord, "The Arctic in China's Subnational 14th Five-Year Plans," The Arctic Institute, November 30, 2023, https://www.thearcticinstitute.org/arctic-chinas-subnational-14th-five-year-plans/.

8 "U.S. Coast Guard Encounters Joint Chinese Coast Guard, Russian Border Guard Patrol in Bering Sea," October 1, 2024, https://www.news.uscg.mil/Press-Releases/Article/3922625/us-coast-guard-encounters-joint-chinese-coast-guard-russian-border-guard-patrol/.

Ocean—coinciding with the PRC's National Day—in a patrol designed to improve domain awareness, enhance navigation skills, and contribute to ocean governance.[9] The patrol came at a significant time in Sino-Russian relations—the two countries were celebrating the 75th anniversary of their diplomatic relations.[10] The Chinese Coast Guard reports to the PRC Central Military Commission, the country's top military body, while the Russian Coast Guard is a part of the Federal Security Service (Federal'naya Sluzhba Bezopasnosti or FSB), a key power ministry in Russia. Although coast guard cooperation is considered non-military, the positioning of the Russian and Chinese Coast Guards within their respective governments connects this type of collaboration to their expanding military cooperation in the North Pacific Arctic, detailed in the next section.

On April 25, 2023, the Chinese and Russian Coast Guards signed a memorandum for cooperation in maritime law enforcement, which the Chinese Coast Guard called a step towards the creation of a "maritime community with a shared future."[11] At the time, Russia held the rotating chair of the Arctic Coast Guard Forum but the other members (the Arctic Seven, all NATO members) refused to engage in joint activities with Russia due to its ongoing war on Ukraine. Consequently, Russia reached out to China to partner in joint coast guard patrols.[12] After signing the memorandum, the Chinese Coast Guard observed Russia's Arctic Patrol 2023 exercise. A delegation from the Chinese Coast Guard was invited to

9 Zhongguo Haiguan [Chinese Coast Guard], "ZhongE haiguan jianting biandui dida bei bingyang [Chinese and Russian Coast Guard Fleet Arrives in the Arctic Ocean]," October 1, 2024, https://mp.weixin.qq.com/s/v457sJIVqTb67wm7suwmrg. Also see Simone McCarthy, "China's Coast Guard Claims to Have Entered the Arctic Ocean for the First Time as it Ramps up Security Ties with Russia," CNN, October 3, 2024, https://www.cnn.com/2024/10/03/china/china-russia-coast-guard-arctic-ocean-intl-hnk/index.html.

10 Meredith Chen, "China's coastguard takes part in first Arctic patrol with Russia," South China Morning Post, October 2, 2024, https://www.scmp.com/news/china/diplomacy/article/3280832/chinas-coastguard-takes-part-first-arctic-patrol-russia.

11 "China Coast Guard, Russian Federal Security Service Sign MoU," China Coast Guard, May 16, 2024, https://www.ccg.gov.cn/mhenu/lbt/202405/t20240516_2230.html.

12 Thomas Nilsen, "FSB Signs Maritime Security Cooperation with China in Murmansk," The Barents Observer, April 25, 2023, https://www.thebarentsobserver.com/security/fsb-signs-maritime-security-cooperation-with-china-in-murmansk/162966.

Vladivostok in April 2024 for talks outlining future joint activities.[13] In October 2024, the Russian Coast Guard traveled to Beijing and Qingdao to discuss future cooperation, including enhancing the capabilities for joint operations in the far seas.[14]

Military Exercises

As China and Russia have deepened their economic cooperation in the Arctic, there has been mounting concern in western states that military collaboration would soon follow. Interestingly, China and Russia have never engaged in any military exercises along the Northern Sea Route, where Russian Arctic military bases are concentrated, but, beginning in 2022, they participated in naval and air exercises near Alaska. On September 19, 2022, a U.S. Coast Guard patrol boat in the Bering Sea spotted three Chinese ships and four Russian vessels sailing 86 miles north of Alaska's Kiska Island.[15] This would be the first in a series of now regular sea and air exercises that China and Russia have been conducting in the North Pacific Arctic. In August 2023, eleven Russian and Chinese ships sailed near the Aleutian Islands in a joint patrol.[16] This time, four U.S. Navy destroyers and P-8 Poseidon aircraft shadowed the Sino-Russian patrol, after some criticism about the "tepid" U.S. response to their 2022 patrol.[17]

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13 Meia Nouwens and Veerle Nouwens, "China-Russia Coast Guard Cooperation: A New Dimension of China-Russia Relations?" CSIS, October 16, 2024, https://chinapower.csis.org/analysis/china-russia-coast-guard-cooperation/#:~:text=Public%20Signals%20Toward%20China%2DRussia%20Coast%20Guard%20Cooperation,-China%20has%20begun&text=The%20two%20sides%20signed%20a,meeting%20gained%20little%20public%20attention.

14 "ZhongE haijing jiang jinyibu shenhua hezuo tisheng liangguo haijing yuanhai lianhe xingdong nengli [China and Russia Will Further Deepen Cooperation to Enhance the Joint Operations Capabilities of the Two Coast Guards in the Far Seas]," October 25, 2024, https://www.chinanews.com/gn/2024/10-24/10307430.shtml.

15 Marc Thiessen, "Patrol Spots Chinese, Russian Naval Ships off Alaska Island," AP, September 26, 2022, https://apnews.com/article/russia-ukraine-china-alaska-honolulu-coast-guard-54638cccc30d5a0f8879022f493a6302.

16 Michael R. Gordon and Nancy A.Youssef, "Russia and China Sent Large Naval Patrol Near Alaska," The Wall Street Journal, August 6, 2023, https://www.wsj.com/world/china/russia-and-china-sent-large-naval-patrol-near-alaska-127de28b.

17 Hilde-Gunn Bye, "Military Vessels from Russia and China Recently Operated near Alaska," High North News, August 7, 2023, https://www.highnorthnews.com/en/military-vessels-russia-and-china-recently-operated-near-alaska.

In July 2024, Russian Tu-95MS "Bear" and Chinese Xian H-6 nuclear-capable strategic bombers flew a joint patrol near Alaska for the first time. A Japanese research center concluded from satellite data that both the Chinese and Russian bombers took off from Anadyr in Russia's Chukhotka region, setting a new precedent in their cooperation.[18] U.S. and Canadian aircraft intercepted the Russian and Chinese planes, which were flying in international airspace. China and Russia had been engaging in joint air patrols around Japan since 2019, but this was their first exercise near Alaska.[19] Chinese and Russian vessels took part in the North-Joint 2024 naval exercises, a component of Russia's large-scale Okean (Ocean) exercises taking place in multiple seas. North-Joint 2024 featured anti-submarine and anti-UAV exercises in the Sea of Japan and the Sea of Okhotsk.[20] According to one Russian analysis, the exercises demonstrated China's potential role in assisting Russia to keep key transportation corridors like the Northern Sea Route open at a time of increased Western pressure.[21]

Increased Sino-Russian military cooperation in the Arctic has occurred in a rapidly changing international environment since the 2022 full-scale Russian war in Ukraine began. In terms of specific timing, the Sino-Russian joint exercises in the Arctic can be viewed as a rejoinder to U.S. exercises in Alaska and the North Pacific with Indo-Pacific allies (see Figure 3.2).

18 David Pierson, "Why China's and Russia's Militaries Are Training Together," The New York Times, August 13, 2024, https://www.nytimes.com/2024/08/13/world/asia/china-russia-military-patrols.html.

19 Ken Moriyasu, "China, Russia Bombers Fly off Alaska, Trigger First U.S. Intercept," Nikkei Asia, July 26, 2024, https://asia.nikkei.com/Politics/International-relations/Indo-Pacific/China-Russia-bombers-fly-off-Alaska-trigger-first-U.S.-intercept.

20 Sergey Sukhankin, "Sino-Russian Partnership in the Arctic and the Far East Reflect Joint Security Interests (Part One)," Eurasia Daily Monitor 21(166), November 14, 2024, https://jamestown.org/program/sino-russian-partnership-in-the-arctic-and-the-far-east-reflect-joint-security-interests-part-one/.

21 "Rossiia i Kitai pokazali, chto gotovy zashchishchat' i severnyi morskoi put'- Perendzhiev [Russia and China have shown that they are ready to protect the Northern Sea Route – Perendzhiev]," September 21, 2024 https://ukraina.ru/20240921/1057532403.html.

Figure 3.2: ***Sino-Russian Exercises in the Context of US and Allied Exercises in the Arctic***

US and Allied Exercises	Sino-Russian Exercises
June 2022: Red Flag Alaska (Canada, Australia, Singapore, France)	*September 2022:* Four Chinese and Russian ships patrol near Alaska
May 2023: US Northern Edge (Canada, UK, Singapore)	*August 2023:*11 Russian and Chinese ships patrol off near Aleutian Islands
June 2024: Red Flag Alaska (Canada, Australia, Singapore, India)	*August 2024:* Russian and Chinese strategic bombers fly near Alaska
July 2024: Arctic Defender (involving Canada, UK, Germany, France, Spain)	*September 2024:* North-Joint naval exercises in Sea of Okhotsk and Sea of Japan

However, given China's key role in supporting the Russian war through dual-use technologies and messaging, NATO has begun to highlight the growing connections between Euro-Atlantic and Indo-Pacific security. NATO's 2022 Strategic Concept called attention to the importance of the Indo-Pacific for Euro-Atlantic security.[22] The leaders of Japan, South Korea, Australia, and New Zealand have been participating in NATO summit meetings since 2022. Both the U.S. and Canada engaged in new dialogue formats with Nordic countries in 2024 regarding Arctic security.[23] This has not gone unnoticed in Beijing and Moscow, and their joint statements increasingly feature condemnations of NATO pressure tactics. With the Arctic Council largely still on hiatus due to the war in Ukraine, Russia in particular fears isolation in the Arctic

22 NATO 2022 Strategic Concept, Adopted by Heads of State and Government at the NATO Summit in Madrid on June 29, 2022, https://www.nato.int/nato_static_fl2014/assets/pdf/2022/6/pdf/290622-strategic-concept.pdf.

23 Trine Jonassen, "In the Very First Strategic Dialogue between Canada and the Nordic Countries, which Took Place in New York And Nunavut, Canada, the Six Arctic Nations Agreed to Face the Ever-Changing Geopolitical Challenges Together by Strengthening Canada's Security Relationship with Finland, Sweden, Norway, Denmark and Iceland," *High North News*, September 30, 2024, https://www.highnorthnews.com/en/first-canada-nordic-strategic-dialogue-key-safer-future-us-region; U.S. Department of State, "U.S. – Enhanced Partnership in Northern Europe (EPINE) Dialogue," May 21, 2024, https://2021-2025.state.gov/u-s-enhanced-partnership-in-northern-europe-epine-dialogue/.

and has sought to highlight engagement with China in military exercises in this context.[24]

Efforts to Expand Remote Arctic Access

Although Russia initially was cautious about China's admission to the Arctic Council as an observer and bristled at China's self-described "near-Arctic" status, now Russian and Chinese officials share an interest in broadening access to the Arctic, partly via joint cooperation in satellite and undersea technology. This is part of a broader Chinese initiative to gain remote access to polar "strategic frontiers" through cooperation with Arctic states.[25] In 2010, China built two ground stations in Kiruna, Sweden, one for meteorological data, followed by a second for remote sensing in 2016, its first such installations outside China. Two years later in 2018, China and Finland established a joint research station for Arctic space observation at the Finnish Space Centre in Sodankylä. That same year, China and Iceland opened a joint observatory in Kárhóll to monitor the Aurora Borealis.[26] Even before the full-scale Russian war on Ukraine, concern about the potential for China to use dual-use technologies for espionage or military purposes contributed to decisions in Sweden and Finland to phase out agreements to host Chinese satellite ground stations.[27]

Originally, China was set to participate in the Arctic Connect initiative—a project led by Finland and involving a consortium of countries, including Japan

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24 Sergey Sukhankin "Sino-Russian Partnership in the Arctic and the Far East Reflect Joint Security Interest (Part Two)," Eurasia Daily Monitor 21(168) November 18, 2024, https://jamestown.org/program/sino-russian-partnership-in-the-arctic-and-the-far-east-reflect-joint-security-interests-part-two/.

25 Mia Bennett and Trym Eiterjord, "Remote Control? Chinese Satellite Infrastructure in and above the Arctic Global Commons," *The Geographical Journal* 189(3), September 2023: 399.

26 Oscar Almén and Christopher Weidacher Hsiung, "China's Economic Influence in the Arctic Region: The Nordic and Russian Cases," Swedish Defence Research Agency FOI-R--5326—SE, June 20, 2022, 26.

27 Matti Puranen and Sanna Kopra, "Finland Retreats from the Polar Silk Road," *High North News*, November 11, 2024, https://www.highnorthnews.com/en/finland-retreats-polar-silk-road; Max Bergmann, Otto Svendsen, Marc Jacobsen, Rebekka Åsnes Sagild, Eskil Jakobsen, and Øystein Solvang, "Defending the North Amid Rising Geopolitical Tensions," CSIS, January 2024, www.csis.org/analysis/defending-north-amid-rising-geopolitical-tensions#:~:text=By%202020%2C%20Swedish%20researchers%20were,not%20being%20renewed%20in%202020.

and Russia—to connect the North Pacific Arctic to the European Arctic via an undersea cable, but this project was abandoned by 2021.[28] Instead, the Finnish company Cinia, which led the earlier Arctic Connect project, is partnering with American Far North Digital and ARTERIA Networks Corporation from Japan in developing the first trans-Arctic subsea cable which would connect the European Arctic via the North Pacific Arctic to the U.S. and Canadian Arctic.[29] For its part, China is now providing fiber optic cable for Russia's Polar Express, a 2,650km subsea cable spanning from Vladivostok to Murmansk.[30]

As China's technology footprint grew smaller in the European Arctic, GLONASS, Russia's satellite network, and China's Beidou began deepening their cooperation to enhance their own capabilities in polar navigation and domain awareness. Such capabilities could also translate into greater support for their respective undersea missions. This could involve remote sensing, but also providing guidance to submarines which would no longer need to rely on GPS. Although Sino-Russian satellite cooperation is not specific to the North Pacific Arctic, a 2022 agreement between Russia's GLONASS and China's Beidou involves placing one Chinese satellite ground station in Petropavlovsk-Kamchatsky on the Sea of Okhotsk.[31]

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28 Stéphanie Pézard, Irina A. Chindea, Naoko Aoki, Domenique Lumpkin, and Yuliya Shokh, China's Economic, Scientific, and Information Activities in the Arctic: Benign Activities or Hidden Agenda? (Santa Monica, CA: RAND, 2025), 33.

29 Trine Jonassen, "Far North Fiber Plans a Route Study to Define the Fastest and Most Secure Route for a Submarine Cable System Directly Connecting Scandinavia, North America, Ireland and Japan through the Arctic Region," *High North News*, April 12, 2023, https://www.highnorthnews.com/en/far-north-fiber-one-step-closer-pan-arctic-connectivity.

30 Elizabeth Wishnick, "China's Quest for Arctic Resources: Implications for the US and Its Indo-Pacific Partners," October 1, 2024, chinasresourcerisks.com. For more on Polar Express, see Alexandra Middleton and Bjørn Rønning, "Geopolitics of Subsea Cables in the Arctic," The Arctic Institute, August 2, 2022, https://www.thearcticinstitute.org/geopolitics-subsea-cables-arctic/.

31 Two others are being constructed in Obninsk in central Russia and in Irkutsk in Siberia. Russian ground stations are being placed in Urumqi in Xinjiang, Changchun in northeast China, and Shanghai on the eastern coast. Roman Kolodii, Dr Giangiuseppe Pili and Jack Crawford, "High-Tech, High-Risk? Russo-Chinese Cooperation in Emerging Technologies," RUSI, March 1, 2024, https://www.rusi.org/explore-our-research/publications/commentary/hi-tech-high-risk-russo-chinese-cooperation-emerging-technologies#:~:text=In%202018%2C%20Russia%20and%20China,%2C%20Irkutsk%20and%20Petropavlovsk%2DKamchatskiy.

Conclusion

As Russia and China have found themselves marginalized in the European Arctic, they have begun calling attention to their Arctic collaboration in the North Pacific Arctic. This enables them to respond to the pressure they claim to feel on their borders from NATO and U.S. Indo-Pacific alliances by engaging in coast guard patrols and military exercises near U.S., Canadian, and Japanese shores, and developing new remote access capabilities. The enthusiasm of China's northeastern provinces for participation in the Polar Silk Road also gives new impetus to cooperation between northeast China and the Russian Far East, which has long been a weak point in Sino-Russian cooperation.

Relocating their Arctic cooperation away from the Russian Arctic— a region that is integral to Russian identity, economic, and military security—has the further benefit of reducing the sensitivity for Russia of greater dependence on China in the Arctic. One area of continued dependence will be in satellite technology, where Russia must use more Chinese components to maintain its GLONASS satellites and rely more extensively on Beidou satellite data for polar navigation in general. Some analysis contends that this reliance on Chinese technology will be detrimental for Russian satellite development.[32] Moreover, China's future development of unmanned undersea gliders and quiet submarines will pose a problem not just for the Arctic Seven as they will be able to cross the Bering Strait unnoticed,[33] but also for Russia should they navigate the Northern Sea Route.

Policy Recommendations

- **NATO should engage with Indo-Pacific partners on areas of common concern in the Arctic.** NATO has increased its engagement with Indo-

32 Pavel Luzin, "Russia's Satellite Constellation Deteriorates, Increasing Dependency on China," *Eurasia Daily Monitor* 21(69), May 6, 2024, https://jamestown.org/program/russias-satellite-constellation-deteriorates-increasing-dependency-on-china/.

33 Liselotte Odgaard, "Russian-Chinese Cooperation in the Arctic: Will NATO Step up to the Challenge? August 5, 2024, Asan Forum, https://theasanforum.org/russian-chinese-cooperation-in-the-arctic-will-nato-step-up-to-the-challenge/ .

Pacific partners and has pledged to defend allied interests in the Arctic. Still, there needs to be greater recognition of the overlap between these two goals in the North Pacific Arctic. The Bering Strait chokepoint, for example, could prove significant in a future Indo-Pacific conflict.[34]

- **The Arctic Seven should engage with Indo-Pacific allies in the Arctic, especially Japan, South Korea, India, and Singapore.** These countries are Arctic Council observer states but receive far less international attention than China. Canada's new Arctic Foreign Policy recognizes the importance of the North Pacific as an approach to the Arctic and advocates greater engagement with Japan and South Korea on Arctic issues.[35] This approach serves as a model for Indo-Pacific engagement for the Arctic Seven, which could be broadened to also include Singapore and India.[36]

- **The Arctic Seven should prioritize communications and domain awareness in technology cooperation with Indo-Pacific partners in the Arctic.** The 2024 U.S. Department of Defense Arctic Strategy highlights the North American Arctic as critical to Indo-Pacific security. It emphasizes the importance of communications and domain awareness, areas where technological collaboration with Indo-Pacific partners could be particularly valuable.[37] Japan, South Korea, India, and Singapore are

34 Christopher Rierson, "North American Arctic Defense Could Shape Outcome of Indo-Pacific Conflict," Indo-Pacific Defense Forum, December 12, 2024, https://ipdefenseforum.com/2024/12/north-american-arctic-defense-could-shape-outcome-of-indo-pacific-conflict/#:~:text=The%20region%20also%20is%20integral,308%203%20minute%20read.

35 Government of Canada, *Canada's Arctic Policy* (Ottawa: Global Affairs Canada, 2024) https://www.international.gc.ca/gac-amc/assets/pdfs/publications/arctic-arctique/arctic-policy-politique-en.pdf, 33; Marc Lanteigne, "Understanding the Role of the North Pacific in Canada's Arctic Foreign Policy," December 18, 2024, https://www.naadsn.ca/wp-content/uploads/2025/01/24_Dec_Lanteigne_Policy-Primer-NPacific-Arctic.pdf.

36 I argue that the U.S. should engage with Japan, South Korea, India, and Singapore in the Arctic in non-traditional security, technology-sharing, science cooperation, and education. See Elizabeth Wishnick, *Indo-Pacific Lens on the Arctic: How US Partners in Asia View Arctic Security and Governance*, East-West Center Occasional Papers No. 11, August 26, 2024, https://www.eastwestcenter.org/publications/indo-pacific-lens-arctic-how-us-partners-asia-view-arctic-security-and-governance.

37 U.S. Department of Defense, "2024 Arctic Strategy," https://media.defense.gov/2024/Jul/22/2003507411/-1/-1/0/DOD-ARCTIC-STRATEGY-2024.PDF, 8.

each creating their own satellite networks and engagement with them could open up new opportunities for cooperation in polar navigation and information-gathering.[38]

38 n. 36, 17.

4. Energy Supply Collaboration in Siberia and Inland Eastern Asia

Hide Sakaguchi

Energy Security in Europe after 2022

Since the Special Military Operation by Russia began on February 24, 2022, economic sanctions were imposed on Russia by the West. Consequently, Russia responded with sanctions against several countries, including a total ban on food imports from the United States, Canada, the EU, the United Kingdom, Norway, Australia, and Japan. Although, energy supply from Russia to those countries has not been suspended directly due to the sanctions, the geopolitical map focused on energy supply has been drastically recolored since 2022.

For example, from 2022 to 2025, the EU has aimed to de-Russianize fossil fuels, and has achieved considerable success, especially with coal and oil. This result also contributes to reduction in greenhouse gas (GHG) emissions with a goal of achieving climate neutrality by 2050 in the EU. However, natural gas, with a carbon dioxide emissions rate of less than 50 percent that of coal, was considered a transitional energy source until renewable energy became widespread for a greener future in the EU. More directly, for the EU countries focused on reducing coal and oil use, natural gas is a lifeblood for their energy security and economy. This is the reality, and Russian gas had filled this demand. That is why the EU had been slow to fully embrace the transition away from Russian gas.

Nord Stream, an natural gas pipeline running from Russia to Europe across the Baltic Sea had been one of main facilities supplying natural gas to the EU countries, but an explosion on September 26, 2022, affected supplies. Consequently, Russia retaliated against EU sanctions by reducing or cutting off gas supplies through existing pipelines, including those that run through Ukraine. Furthermore, the proposed Nord Stream 2 pipeline, which was

designed to bypass Ukraine, was never certified by Germany, and its operations have been suspended due to the sanctions.

As a result of the sequence of events, the EU countries are now forced to seek alternative sources of gas, such as liquefied natural gas (LNG) imports. This forced shift towards non-Russian gas sources has raised concerns about energy security and the potential impact on consumers and businesses not only in the EU but also in the global market. However, despite efforts to reduce dependence on Russian gas, the EU imported a record amount of Russian LNG, primarily via tanker, reaching 17.5 million tons. This resulted in significant GHG emissions, running counter to the EU's emissions reduction targets. It reflects a typical case of geopolitics influencing energy supply, driven by sanctions and counter-sanctions between the EU and Russia since 2022.

What Happened in Japan?

If we turn our attention around to the eastern part of the Eurasian continent, we can see that Japanese energy industry stakeholders are deeply concerned about the impact of economic sanctions against Russia. With a similar same approach as in the EU countries, natural gas in Japan is widely used as a versatile and cleaner energy resource with lower GHG emission compared to coal and oil. It is primarily used as a fuel for thermal power generation and as a feedstock for city gas, industrial fuel, and transportation fuel. However, Japan's domestic natural gas production is very limited, accounting for only a small percentage of its total consumption. Consequently, Japan relies heavily on imported LNG to meet its energy demands and is the second-largest LNG importer in the world, following China. According to the data given by Gas-Energy News, Japan[1] in 2023, the main sources for LNG imports to Japan are from Australia (41 percent), Malaysia (15.8 percent), and Russia (9.7 percent).

Here, it should be stressed that Japan's dependence on Russia for LNG is around 10 percent of total consumption in Japan, which is equivalent to about

1 "LNG in 2023: Import prices to remain high; volume to decline for the sixth consecutive year," Gas Energy News, February 12, 2024, https://www.gas-enenews.co.jp/lpgas-lng/37674/.

3 percent of Japan's electricity supply. While the number may seem small, it means that a massive portion of Japan's LNG used for power generation, comes from Russia.[2] According to the Japanese energy white paper,[3] the energy self-sufficiency rate in Japan is extremely low, at just 12.6 percent in 2024. And, if the power supply to Japanese businesses decreases by 3 percent, the economic impact could be a decline of 2 trillion yen in domestic production annually, primarily due to manufacturing. In addition, the uncertainty of power supply would negatively impact households' economic activity. Hence, if Japan stops LNG imports from Sakhalin, it is possible that some gas companies in Japan could face financial difficulties. Therefore, withdrawing from Russia for LNG supply to follow the western countries is not a wise solution for Japan.

Let us take a look at where in Russia LNG is produced for export to Japan. Japan is an island nation, geographically isolated from the rest of the world by the ocean. Among its neighboring countries such as South Korea, Taiwan, China, and Russia, the shortest distance is to Russia, a mere 43 kilometers away. The closest point between Japan and Russia is the Strait of Soya, separating Japan's Hokkaido region from the Russia's Sakhalin region. Indeed, Sakhalin plays a key role in producing LNG for export to Japan.

Specifically, the Sakhalin 1 and Sakhalin 2 LNG projects have a relatively long history of involvement with Japan. The Sakhalin Oil and Gas Development Co. (SODECO), a Japanese consortium involving the government of Japan, Itochu, Marubeni, and others, holds a 30 percent stake in the Sakhalin-1 oil and gas project in Russia, which began operations in 2006. Sakhalin 2, a joint venture includes Japanese companies Mitsui Corporation and Mitsubishi Corporation, began operations in 2009. Since Sakhalin is close to Hokkaido, it takes less than three days to transport LNG to Japan. This has significant advantages not only in time delivery (compared to the three-week journey from the Middle East or the eight-day trip from Western Australia), but also reduced fuel costs and

2 Yuki Togano, The Japan Research Institute, Limited, Research Eye No.2023-010, May 9, 2023.

3 Ministry of Economy,Trade and Industry, "Energy White Paper 2024 (Summary)," Government of Japan, 2024, https://www.enecho.meti.go.jp/en/category/whitepaper/pdf/2024_outline.pdf.

lower GHG emission. This short distance transportation also avoids the risks associated with navigating hazardous areas like the Strait of Hormuz.

Given these factors, it is undeniable that LNG from Sakhalin, Russia remains one of Japan's key energy sources. However, the risk of unstable LNG supply is increasing throughout the world. To address this, Japan has been strengthening LNG procurement from various countries and regions, diversifying its energy supply sources. This is a proactive measure to mitigate potential disruptions in the global LNG market and ensure a reliable energy supply for Japan.

Arctic LNG1, LNG2 and Japan

The Yamal Peninsula and the Gydan Peninsula at northwestern Siberia, Russia, are located along the marginal seas of the Arctic Ocean, facing the Kara Sea, where the mouths of the Ob and Yenisei Rivers meet. The drainage basins of these two rivers are among the largest in the Eurasian continent. In the past, vast amounts of organic matter were transported from these huge drainage areas and deposited into the Gulf of Ob and the Yenisei Gulf, where they formed thick layers of permafrost, or frozen organic rich soil, over thousands of years.

However, global climate change in recent decades has led to a significant thawing of the Siberian permafrost. This thawing results in the decomposition of organic matter, releasing large amounts of methane and carbon dioxide into the atmosphere. Scientists have found that methane, in particular, is a potent GHG, with a global warming potential estimated to be 28 times greater than that of carbon dioxide over a 100-year period. This was highlighted by Russian President Vladimir Putin during his speech at the Eastern Economic Forum held in Vladivostok in 2022. He acknowledged that Siberia's permafrost is thawing rapidly due to warming temperatures, posing a serious global issue that risks amplifying climate change through a positive feedback cycle. As such, global action is required, particularly in controlling methane emissions. One proactive measure is the extraction of methane from thawing permafrost areas to prevent is uncontrolled release into the atmosphere.

This context sets the stage for the development of Arctic LNG 1 and Arctic LNG 2, liquefied natural gas projects mainly led by NOVATEK, Russia's second-largest natural gas producer, with international collaboration. These projects are based in the Yamal and Gydan Peninsulas.

Although Japan did not invest directly in Arctic LNG1, several Japanese companies have played key roles in its development, For instance, Chiyoda Corporation and JGC Holdings (formerly Japan Gasoline Co., Ltd.) contributed to plant construction while Mitsui O.S.K. Lines (MOL) has been involved in LNG transportation through the Northern Sea Route (NSR). Arctic LNG 1 started production in December 2017, with 80 percent of its exports going to Europe and 20 percent to Asia.

For Arctic LNG 2 project, 10 percent share is held through a joint investment between Japan Oil, Gas and Metals National Corporation (JOGMEC), and Mitsui & Co., in addition to the contribution of MOL to LNG transportation.

Japan's involvement in Arctic LNG 2 is driven by several strategic goals. Co-developing Arctic LNG 2 in an international framework with Russia, China, and France was not only to extract methane gas from Northwest Siberia and transport LNG to Japan but also to promote the use of the NSR as an alternative to the Suez Canal route for trade, considering security and climate change mitigation. According to MOL,[4] the distance from Sabbetta port at Yamal Peninsula to Yokohama, Japan, via the NSR is 4900 miles, taking around 14 days during summer. The shorter distance translates to lower costs and quicker delivery times, offering a significant advantage compared to LNG imports from the Middle East. And if the NSR is established, a voyage between Asia and Europe will become "about 40% shorter than a voyage via the Suez Canal."

However, in reality, due to the dangers in the Red Sea, many Japanese shipping companies have been avoiding the Suez Canal. Instead, ships are rerouting via the Cape of Good Hope, increasing the distance between Rotterdam and

4 Mitsui O.S.K. Lines, https://www.mol.co.jp.

Yokohama to approximately 18,000 km, taking 30–40 days, compared to 12,000 km and 15–20 days via Suez. This rerouting has significantly increased fuel consumption, driving up global prices, causing supply shortages, and undermining emission reduction efforts.

Another important purpose of Arctic LNG 2 for Japan is to improve its relationship with Russia, particularly after the Ukraine issue and even before the sanctions, due to the Northern Territories issue. It is, therefore, crucial for Japan to realize NSR along with the development of Arctic LNG 2.

However, after Moscow started its so- called 'special military operation' in Ukraine in February 2022, international banks and shareholders halted financing due to sanctions. This affected Arctic LNG 2 with U.S. sanctions particularly restricting the availability of high ice-class LNG carriers essential for Arctic operations. Foreign shareholders, including Japan, suspended their participation, delaying project development. At the same time, this slowdown unfortunately accelerates Siberia's permafrost thawing, leading to uncontrolled methane emissions and further global warming.

New satellite images have revealed the progress that Novatek has made at the Arctic LNG 2 project.[5] Power units delivered by Chinese company Wison appear installed and recent gas flaring suggest a temporary re-start or test start-up of the facility. This is nothing surprising, as China has been investing in this project regardless of the economic sanctions. This news clearly suggests that even though the sanctions against Russia once worked to slow down the Arctic LNG 2 project but has now accelerated Sino-Russia energy collaboration to make up sanction losses.

Similar environmental and energy trends are evident in the Republic of Sakha (Yakutia) in eastern Siberia, where thawing permafrost has transformed

5 Mikhail Zhizhin, Morgan Bazilian and Christopher Elvidge, "Commentary," Payne Institute for Public Policy, Colorado School of Mines, April 10, 2025, https://payneinstitute.mines.edu/eyes-on-the-arctic-satellite-monitoring-of-the-arctic-lng-2-terminal/; also High North News, April 3, 2025.

landscapes and released large amounts of GHGs. The Chayandinskoye oil, gas and condensate field, one of Russia's largest, forms the backbone of the Yakutia gas production center. Along with the Kovyktinskoye field in the Irkutsk Region, it serves as a resource base for the Power of Siberia gas pipeline.[6] Launched in 2019 to supply natural gas to China, the project, named "Power of Siberia" by Russian President Vladimir Putin, has significantly enhanced Sino-Russia energy collaboration.

Northern Forum and Cino-Russia Arctic collaboration

On May 19, 2024, the "Northern Forum in China: Innovative Technology Cooperation" event was held at Harbin, Heilongjiang, China. According to the introduction of the Northern Forum,[7] it was established onNovember 8, 1991 in Alaska, and the Northern Forum Non-Profit Organization Certificate was issued on November 29, 1991 with the mission to improve the quality of life of Northern peoples and support sustainable development of the regions. Currently, the Northern Forum has 12 member regions: Jewish Autonomous Okrug, Kamchatka Krai, Krasnoyarsk Krai, Magadan Oblast, Nenets Autonomous Okrug, Sakha Republic (Yakutia), Khabarovsk Krai, Khanty-Mansyisk Autonomous Okrug - Yugra, Chukotka Autonomous Okrug, Yamal-Nenets Autonomous Okrug, State of Alaska (U.S.), Gangwon Province (Republic of Korea), as well as nine business partners from the Russian Federation, Iceland, Norway, U.S., and Japan. The majority of the participants at Northern Forum in China at Harbin were Chinese and Russian because Harbin is the capital of Heilongjiang, China's northernmost province that connects China and Russia geographically. But based on the principal of the Northern Forum, any one from any country can participate. Actually, China was not a member region nor business partner before the forum.

At the keynote speech of the forum, Professor Guo Pei Qing, Ocean University of China raised a significant question: "So many Arctic meeting

6 "Chayandinskoye field: A resource base for the Power of Siberia gas pipeline," Gazprom, https://www.gazprom.com/projects/chayandinskoye/.

7 Northern Forum, https://www.northernforum.org/en/.

platforms we already have. Do we need another platform?"

Actually, there are quite many numbers of international initiatives or bodies related to the Arctic now, such as 1) Arctic Circle Assembly, Reykjavik, Iceland, 2) Northern Dimension, Helsinki, Finland, 3) Arctic Frontiers, Tromsø, Norway, 4) High North Dialogue, Bøde, Norway, 5) High North Talks, Geneva, Switzerland, 6) The Arctic: Territory of Dialogue/International Arctic Forum, Cities in Russia, 7) Arctic Encounter Symposium, Alaska, U.S., 8) Arctic 360, Toronto, Canada, and now 9) Northern Forum. Our world needs an inclusive and acceptable platform for all parties to tackle the issues of Arctic and it is impractical to exclude Russia from Arctic governance. Potential participants from so called "unfriendly countries" against Russia have difficulties in traveling to Russia due to many political reasons. As a result, none of them except for the Northern Forum accepts all international participants due to the current political situation. Before establishing a new platform for Arctic, we need deep consideration about this situation and make efforts to open the door for true international discussion and collaboration.

Another key topic of the forum was a joint statement by China and Russia on shipping security. Both countries vowed to build an Arctic passage as a new international corridor, linking EU and East Asia via Russia. The melting Arctic corridor give us another choice, the NSR mentioned above. This is a typical ongoing issue which accelerates Sino-Russia Arctic collaboration.

At the end of the forum, a grand strategic cooperation signing ceremony between Russian natural gas and pipeline supplier and Chinese energy company was held. In addition to the joint development of gas pipelines, a railway network was proposed forming a network of four countries, Russia, Kazakhstan, and China, and Mongolia, connected at the quadruple joint in the southern part of the Altai Mountains. Amidst the sanctions imposed on Russia by the West, economic cooperation through such developments in Eastern Asia is gaining traction. Taiwan, South Korea, and Japan, though energy resource-poor countries, however, remain deprived of these benefits.

Policy Recommendation

Historically, economic sanctions have been regarded as sometimes effective. However, in reality, most sanctions fail to achieve their intended goals. This is largely because they can be bypassed through loopholes, such as conducting economic activities via third-party countries. And to make matters worse, sanctions often function as a form of silent warfare. As a result they strain international relations and rarely address the root causes of the issues they aim to resolve.

In addition, forming alliance and providing military support to one side of a conflict often results in expansion of the conflict. Policies that fuel conflicts, such as sanctions, tend to leave a negative legacy for the future. To minimize, and ideally eliminate, the conflict in pursuit of global peace and stability, maintaining neutrality is crucial. Remaining neutral and not aligning with any faction imposing sanction, helps preserve diplomatic channels and encourages dialogue regardless of what is happening.

Rather than uniting as like-minded nations and promoting hostility toward dissenting ones, it is essential to recognize and respect the differences among nations with diverse ideologies, beliefs, cultures, religions, and politics. Instead of rejecting or demonizing other nations, efforts should be made to find common ground and mutual understanding.

To build and sustain positive relationships, maintaining trade, cultural exchange, and continuous dialogue are truly crucial with multilateral balance. This is why neutrality plays a key role in maintaining global peace and stability. However, before moving forward with stronger international relationships, it is important to address historical grievances through sincere reconciliation, where necessary.

In this respect, China's policy toward the war between Russia and Ukraine—abstaining from both military support and economic sanctions—can be considered an example of neutrality. Although China and Russia are close neighbors, strategic partners and members of BRICS, China has not formed

a military alliance with Russia. Their relationship, normalized through rapprochement in 1989, is based on partnership, not an alliance. From the perspective of many democratic countries, both China and Russia are often categorized as authoritarian states. However, this view is not universally accepted, and it is essential to recognize the existence of alternative perspectives. It may be time to reconsider how we categorize nations and form alliances, especially when such classifications reinforce division rather than promote mutual understanding.

5. Potential Russian-Chinese Cooperation on Arctic Governance?

Camilla T. N. Sørensen and Jørgen Staun

Introduction

Russia's war in Ukraine continues to have substantial implications in the Arctic, with growing security tension and intensifying militarization of the region.[1] There is a growing consensus among Arctic scholars and experts that the so-called "Arctic Exceptionalism"—i.e., the idea that the uniquely cold, harsh, and remote Arctic incline the Arctic states towards dialogue and cooperation rather than competition and conflict—is dead.[2] While a definite death sentence is debatable, there is no question that Arctic governance, i.e., the institutions and agreements that have helped ensure regional dialogue and cooperation amid growing global geopolitical rivalry, is under tremendous pressure.[3] Since the Russian full-scale invasion of Ukraine in February 2022, the key Arctic institution, the Arctic Council, has been severely weakened. While the various working groups under the Arctic Council auspices since February 2024 have resumed cooperation with Russia, it is still only in virtual form and at the level of officials.[4] Moscow is frustrated and has threatened to withdraw from the Arctic Council, while increasing Russia's engagement on Arctic affairs with non-Arctic states, such as China and India, and with non-Arctic specific

1 Michael Paul, "Back to the Future of the Arctic," SWP-Comment, May 18, 2024, https://www.swp-berlin.org/publications/products/comments/2024C18_FutureArctic.pdf.

2 Mia Bennett, "The Death of Arctic Exceptionalism," Cryopolitics, November 10, 2023, https://www.cryopolitics.com/2023/10/11/death-of-arctic-exceptionalism/.

3 Joanna Hosa, "Feeling the Chill: Navigating Arctic Governance amid Russia's War on Ukraine," Policy Brief. European Council on Foreign Relations, May 18, 2023, https://ecfr.eu/publication/feeling-the-chill-navigating-arctic-governance-amid-russias-war-on-ukraine/.

4 Mathieu Boulègue and Duncan Depledge, "The Face-off in a Fragmented Arctic: Who Will Blink First?" RUSI Commentary, May 24, 2024.

institutions, such as the BRICS.[5] The previously held common understanding among the Arctic states that they are in control of Arctic governance, with non-Arctic states relegated to secondary roles, is thus also at risk of eroding.[6] This opens up more room for Beijing, which has long considered Arctic governance, particularly the Arctic Council, inadequate and outdated, aiming to promote a replacement that gives more influence to non-Arctic states.[7] While there is no doubt that the Arctic is assuming a more prominent role in the strategic partnership between Russia and China, the question remains whether Moscow and Beijing can cooperate on Arctic governance. It is especially intriguing to examine whether Russia, in a situation where Moscow is isolated and under pressure from the Western Arctic states and heavily dependent on China, will comply with China's desire for non-Arctic specific institution-building in the region.

This chapter analyses and discusses the potential Russian-Chinese cooperation on Arctic governance by applying an analytical framework based on a strategic cultural understanding of the "ends-ways-means" (EWM) model.

Analytical Framework: Ends, Ways, and Means Seen Through a Strategic Cultural Lens

We define *strategic culture* as "the dominant discourses on strategy shared among a country's central power elites".[8] This definition is operationalized in

5 "Russia to Quit Arctic Council in Case of West's Destructive Behavior — Diplomat," *TASS*, May 14, 2023, https://tass.com/russia/1617119.

6 Mathieu Landriaiult, "Russia and the Immediate Future of Arctic Geopolitics," Centre for International Policy Studies (CIPS), June 23, 2024, https://www.cips-cepi.ca/2024/07/23/russia-and-the-immediate-future-of-arctic-geopolitics/.

7 State Council Information Office of the People's Republic of China, "China's Arctic Policy," January 26, 2018, http://english.scio.gov.cn/node_8002680.html; Camilla T. N. Sørensen, "The Evolving Chinese Strategy In the Arctic: Entering the Grey Zone?" In *Hybrid Threats and Grey Zone Conflict: The Challenge to Liberal Democracies*, edited by Aurel Sari and Mitt Regan, 271–88 (Oxford: Oxford University Press, 2024).

8 Tamir Libel, "Rethinking Strategic Culture: A Computational (Social Science) Discursive-Institutionalist Approach," *The Journal of Strategic Studies*, 2018, https://doi.org/10.1080/01402390.2018.1545645.; Edward Lock, "Strategic Culture Theory: What, Why, and How," In *Oxford Research Encyclopedia, Politics* (Oxford University Press, 2018); Niels Bo Poulsen and Jørgen Staun, *Russia's Military Might - A Portrait of Its Armed Forces* (Copenhagen: DJØF Forlag, 2021), 67.

an analytical framework by combining it with the "ends-ways-means" (EWM) model, where "ends" refer to the objectives to be achieved; "ways" describe how these objectives will be achieved; and "means" denote the specific resources required to do so.[9] The core argument of our approach is that the formulation of ends and the selection of ways and means to pursue them are shaped by a country's prevailing strategic culture. In other words, strategy is not formulated in a vacuum—it is conditioned by, and embedded in, the strategic culture of the country in question. As such, strategic culture influences the development and content of strategy at all levels.

Consequently, our analysis begins by examining how the elites in Moscow and Beijing assess the key dynamics of the international system and their countries' roles within it. Such assessment forms the backdrop for understanding their evolving perspectives on—and approaches to—the Arctic. We thus apply a social constructivist reading of the most important strategy documents and statements from the elites in Russia and China. We first explore how each country views its role in the international system, including ends and key threats. We then turn to their Arctic-specific ends and investigate the ways through which these ends are pursued and the means employed, emphasizing the role of institution-building. Neither Russia nor China views institution-building in the Arctic as an end in itself, but as a way or a means within their broader strategic approach. The question is whether their strategic approaches in this regard are compatible.

What Does Russia Want in the Arctic – and with Arctic Governance?

Throughout Putin's tenure as President, the primary end of Russia's elites has been to ensure Russia's status as an internationally recognized great power.[10]

9 Harry R. Yarger, "Toward A Theory Of Strategy: Art Lykke and the Army War College Strategy Model," In *Guide to National Security Policy and Strategy*, 107–12 (U.S. Army War College, 2006), https://dde.carlisle.army.mil/documents/courses_14/readings/2303_Yarger.pdf.; Camilla T. N. Sørensen and Jørgen Staun, "Incompatible Strategic Cultures Limit Russian-Chinese Strategic Cooperation in the Arctic," *Scandinavian Journal of Military Studies* 6, no. 1 (2023): 24–39, https://doi. org/10.31374/sjms.178.

10 Iver B. Neumann, "Russia as a Great Power, 1815-2007," *Journal of International Relations and*

Over the years, the great power understanding has evolved in strategy documents from considering Russia as a regional great power to "a world power" or "a leading world power".[11] The latest foreign policy concept from 2023 refers to Russia as "an influential world power" and as "a unique state civilization, a vast Eurasian and Euro-Pacific power".[12] As a leading world power, Russia demands recognition and respect, and the world order that Moscow aspires to is multipolar. On the other hand, there is, especially within the Russian elite's military establishment, a pronounced sense of vulnerability and a perception that Russia is threatened by the West.[13] This sense of vulnerability is reflected in Russia's national security strategies and military doctrines. Here, Russia feels threatened first and foremost by NATO's expansion eastwards and by NATO's assumed technological superiority.[14]

The Arctic plays a significant role in Russia's great power perception. Russia considers itself the dominant great power in the Arctic and wants to maintain this position. This is due to the long historical engagement in the region, its overwhelming geographic presence, and the importance of the Arctic for Russia's defense. Around 60 percent of Russia's sea-based strategic nuclear weapons are under the command of the Northern Fleet, which is based on the Kola

Development, 2008; Niels Bo Poulsen and Jørgen Staun, *Russia's Military Might - A Portrait of Its Armed Forces* (Copenhagen: DJØF Forlag, 2021); Anatoly Reshetnikov, "Introduction: Great Power vs. Velikaya Derzhava," In *Chasing Greatness. On Russia's Discursive Interaction with the West over the Past Millennium* (University of Michigan Press, 2024), https://www.jstor.org/stable/10.3998/mpub.12333911.6.

11 President of the Russian Federation, "Russia's National Security Strategy to 2020," May 12, 2009, http://rustrans.wikidot.com/russia-s-national-security-strategy-to-2020; President of the Russian Federation, "Russian National Security Strategy," December 2015, http://www.ieee.es/Galerias/fichero/OtrasPublicaciones/Internacional/2016/Russian-National-Security-Strategy-31Dec2015.pdf.

12 Ministry of Foreign Affairs, "Concept of Foreign Policy of the Russian Federation," secs 14, 4, March 31, 2023, http://static.kremlin.ru/media/events/files/ru/udpjZePcMAycLXOGGAgmVHQDIoFCN2Ae.pdf.

13 Stephen R. Covington, "The Culture of Strategic Thought Behind Russia's Modern Approaches to Warfare," Defense and Intelligence Projects (Belfer Center: Harvard Kennedy School, October 2016).

14 President of the Russian Federation, "The Military Doctrine of the Russian Federation," secs 12a, 12d, December 2014, http://rusemb.org.uk/press/2029.

Peninsula and primarily operates in the Barents Sea.[15] As Russia's relationship with NATO has deteriorated, the great power discourse, supplemented by the sense of vulnerability, has become increasingly important, and the protection of Russian territory and sovereignty has gained a more prominent place in Russia's Arctic policies.[16] Furthermore, the Russian Arctic is highlighted as essential for Russia's resource-driven economy. In the Arctic strategies, Russia's principal civilian ends are formulated as "using the Arctic zone of the Russian Federation as a strategic resource base".[17] The two main ways of supporting the end of using the Arctic as a resource base are, firstly, to ensure low security tension and cooperation in the Arctic, as this helps to ensure the profitability of significant and long-term investments in the Russian Arctic, and, secondly, to ensure that the United Nations Convention on the Law of the Sea (UNCLOS) regime is maintained as the set of rules regulating Arctic resource distribution. UNCLOS thus gives Russia exclusive rights to exploit resources to at least 200 nautical miles from the coastline, where most of the carbon-related resources are expected to be situated.

One central mean Russia has employed is further Arctic institution-building. Thus, Russia has been a staunch advocate of the Arctic states taking the lead in Arctic governance and specifically in the Arctic Council and it has been a devoted supporter of the UNCLOS regime and the UN Committee on the

15 Kristian Åtland, "The Building up of Russia's Military Potential in the Arctic Region and Possible Elements of Its Deterrence," Centre for Russian Studies (CRS), 2018, http://r-studies.org/cms/index.php?action=news/view_details&news_id=43590&lang=eng.

16 President of the Russian Federation, "On the Strategy for Development of the Arctic Zone of the Russian Federation and National Security for the Period until 2035 (Decree 645)," October 26, 2020, http://kremlin.ru/acts/bank/45972; President of the Russian Federation, "Amendments Have Been Made to the Foundations of State Policy in the Arctic to 2035," March 21, 2023, http://kremlin.ru/acts/news/70570?utm_referrer=korabel.ru%2Fnews%2Fcomments%2Fvneseny_izmeneniya_v_osnovy_gosudarstvennoy_politiki_v_arktike.html&fbclid=IwAR3fqEzRAhzpBAVi8qhdYDoiv44GPcqVT5BNaIE2Ju6fo1sSZquKEtttfvI.

17 President of the Russian Federation, "Osnovy Gosudarstvennoy Politiki Rossiyskoy Federatsii v Arktike Na Period Do 2020 Goda i Dal'neyshuyu Perspektivu (The Foundation of the State Policy of the Russian Federation in the Arctic for the Period up to 2020 and Beyond)," March 27, 2009, http://static.government.ru/media/files/A4qP6brLNJ175I40U0K46x4SsKRHGfUO.pdf; President of the Russian Federation, "Strategy for the Development of the Arctic Zone of the Russian Federation and National Security Efforts for the Period up to 2020," February 2013, http://government.ru/info/18360/.

Continental Shelf (CLCS) as the preferred international regime guiding how to divide the undersea territory in the Arctic.[18] However, Russia's view on Arctic governance has shifted in recent years, as its relations with the U.S. and NATO have deteriorated, while its relations with China have improved. Whereas Russia's Arctic strategy from 2020 made good neighborliness in the Arctic a strategic priority, this was markedly toned down in the amended version of the strategy in 2023.[19] According to the Russian foreign policy concept of 2023, Russia will prioritize "mutually beneficial cooperation with non-Arctic states pursuing a constructive policy toward Russia and showing interest in international activities in the Arctic, including the development of the Northern Sea Route's infrastructure".[20] Among Russian scholars and analysts, a debate has emerged about whether Moscow should seek to promote BRICS as a non-Western alternative to the Arctic Council and as a countermeasure to NATO's increasing presence in the region.[21] However, this does not appear to have gained significant traction in official Russian statements, which focus more on strengthening Russia's bilateral cooperation in the region with non-Western countries, such as China and India. Here, the focus is predominantly on concrete projects such as exploration of oil or gas reserves, the development of the Northern Sea Route or research projects rather than on Arctic institution-building—see, for example, the summit declaration from the 2024 summit between Russia and India, where the Arctic is mentioned several times.[22]

18 "Foundations of the Russian Federation's State Policy in the Arctic Until 2020 and Beyond," sec. 7c, September 2008, http://www.scrf.gov.ru/documents/98.html.

19 President of the Russian Federation, "Amendments Have Been Made to the Foundations of State Policy in the Arctic to 2035," n. 16.

20 The Ministry of Foreign Affairs, "Concept of Foreign Policy of the Russian Federation," March 31, 2023, http://static.kremlin.ru/media/events/files/ru/udpjZePcMAycLXOGGAgmVHQDIoFCN2Ae.pdf.

21 Glenn Diesen, "Is There Room for Cooperation in the Arctic," Valdai Blog (blog), August 9, 2023, https://valdaiclub.com/a/highlights/room-for-cooperation-in-the-arctic/?sphrase_id=1706242.

22 President of the Russian Federation, "Joint Statement Following the 22nd India-Russia Annual Summit India-Russia: Enduring and Expanding Partnership," September 7, 2024, http://en.kremlin.ru/supplement/6168.

What Does China Want in the Arctic – and with Arctic Governance?

In official documents and speeches, Chinese leaders emphasize that China has emerged as a great power and thus requires the appropriate influence and respect.[23] This development in the discourse among Chinese leaders and top diplomats is led by General Secretary and President Xi Jinping, who, most forcefully in his report to the 19th Chinese Communist Party (CCP) Congress in 2017, underlined the profound changes visible in China's position and role in the international system. Regarding the overall ends, Xi stressed that the aim is for China to become "a global leader in terms of comprehensive national strength and international influence by the middle of the 21st century".[24] This is the core content of "the great rejuvenation of the Chinese nation"—a notion key to the CCP's narrative on China's role in the international system.[25] The U.S. and its allies, especially Japan, are the hostile "other" seeking to prevent China's national rejuvenation by suppressing and containing it.[26]

In line with the overall narrative, Beijing is emphasizing the need to be respected and included as a key stakeholder in the Arctic. In January 2018, China released its first Arctic Policy White Paper, which stated that "China is an important stakeholder in Arctic affairs".[27] Such a confident Chinese posture in the Arctic is not an entirely recent phenomenon. In 2014, Xi Jinping had

23 Jianwei Wang, "Major Country Diplomacy: A Paradigm Shift?" *Journal of Contemporary China* 28, no. 115 (2018): 15–30, https://doi.org/10.1080/10670564.2018.1497907; Yi Wang, "Member of the Political Bureau of the CPC Central Committee and Foreign Minister Wang Yi Meets the Press," Ministry of Foreign Affairs, Peoples' Republic of China, July 3, 2025, https://www.mfa.gov.cn/eng/wjb/wjbz/jh/202503/t20250307_11571025.html.

24 Jinping Xi, "Xi Jinping's Report at the 19th CPC National Congress," *China Daily*, April 11, 2017. https://www.chinadaily.com.cn/china/19thcpcnationalcongress/2017-11/04/content_34115212.htm.

25 Xi, "承前启后继往 开来朝着中华民族伟大复兴目标奋勇前进－来在参观"复兴之路"展览室的讲话'览室的讲话民族习近平在亚洲相互协作与信任措施会议第四次峰 会上的讲话', May 21, 2014, http://www.xinhuanet.com/world/2014-05/21/c_1110796357.htm; Jieshi Yang, "Implementing the Chinese Dream," *The National Interest*, October 9, 2013, https://nationalinterest.org/commentary/implementing-the-chinese-dream-9026.

26 Chun Han Wong, Keith Zhai, and James T. Areddy, "China's Xi Jinping Takes Rare Direct Aim at U.S. in Speech," *The Wall Street Journal*, June 3, 2023.

27 State Council, "China's Arctic Policy," n. 7.

already openly characterized China as a "polar great power" and directly linked Chinese ambitions in the polar regions to the goal of becoming a maritime great power.[28] China's main argument for why it is an important stakeholder in Arctic affairs is that, since climate change in the Arctic has global implications, it is, therefore, not up to the Arctic states alone to establish the rules and norms for the future development of and access to the region and its resources. Non-Arctic states, such as China, also have a role to play. It is noteworthy that the Chinese specifically highlight non-Arctic specific institutions and agreements, such as the UN Charter, UNCLOS, and relevant rules of the International Maritime Organization.[29] Given that Moscow has previously insisted on Arctic governance being a matter for Arctic states, Chinese ambitions to "take active part in the international governance of the Arctic" and to promote "general international law"[30] are thus a potential cause of tension between the two.

Beijing thus considers the Arctic Council—and Arctic governance in a broader sense—inadequate and outdated, stating that "China is committed to improving and complementing the Arctic governance regime". Beijing seeks a replacement that affords greater influence to non-Arctic states. The Arctic White Paper thus argues, "The governance of the Arctic requires the participation and contribution of all stakeholders".[31] There are signs that China is becoming more proactive in encouraging regional governance that gives more influence to non-Arctic states, thereby promoting China as a "rule-setter" rather than a mere "rule-taker" in the Arctic.[32] Chinese scholars also frequently emphasize the opportunities for China to influence the institutionalization of rules and regulations in the Arctic.[33] The current partial suspension of the Arctic Council

28 Anne-Marie Brady, *China as a Polar Great Power* (Cambridge: Cambridge University Press, 2017), 3, 109; Ryan D. Martinson, "The Role of the Arctic in Chinese Naval Strategy," *China Brief* 19, no. 22 (2019).

29 State Council, "China's Arctic Policy," n. 7.

30 Ibid.

31 Ibid.

32 Nengye Liu, "China and One Hundred Years of the Svalbard Treaty: Past, Present and Future," *Marine Policy* 124 (2021), https://doi.org/10.1016/j.marpol.2020.104354.

33 Shiyue Li, Yiming Zhang, and Zhenfu Li, "大北极框架下的北极地区多边治理机制研究," 北极去题 5 (2017): 71–76, https://www.doc88.com/p-6751326941905.html.; Yixuan Pan,

has given China further ammunition to support its argument that the present legal and institutional framework in the Arctic, which generally privileges Arctic states, is insufficient to address the challenges developing in the region. The question, however, is how Russia will respond to this.

Compatible Views on the Future of Arctic Governance?

The Russian-Chinese joint statement from February 2022 states, "The parties agreed to continue consistent intensification of practical cooperation for the sustainable development of the Arctic".[34] This is the first time the Arctic is mentioned in a joint statement between Russia and China. The joint statement resulting from Putin's state visit to Beijing in May 2024 then further underscores, "[b]oth sides believe that the Arctic should remain a place of peace, stability, constructive dialogue and mutually beneficial cooperation and should not cause military and political tensions in the region".[35]

It is noteworthy how the issue of Arctic governance is presented in this statement as a joint Russian-Chinese matter. It has previously been an issue that Moscow kept to itself. This shift suggests how a weakened Russia, increasingly dependent on China, may feel compelled to compromise its traditional opposition to inviting non-Arctic states into the region, including into Arctic institution-building. From a strategic cultural perspective, however, there are limits to Russian-Chinese cooperation on Arctic governance. Russia aims to secure a solid great power position in a multipolar international system and maintain its dominant role as a great power in the Arctic. In the long run, this will clash with China's overall goal of securing its position as a leading great power on

"Global Governance Needed for Arctic Affairs," *China Daily*, October 5, 2019, http://global.chinadaily.com.cn/a/201905/10/WS5cd4b107a3104842260bad41.html.; Yao Zhang, "Ice Silk Road Framework Welcomed by Countries, Sets New Direction for Arctic Cooperation," *Global Times*, September 4, 2019, https://brgg.fudan.edu.cn/en/articleinfo_395.html.

34 President of Russia, "Joint Statement of the Russian Federation and the People's Republic of China on the International Relations Entering a New Era and the Global Sustainable Development," April 2, 2022, http://en.kremlin.ru/supplement/5770.

35 Ben Norton, "EURASIA China-Russia Joint Statement Marking "New Era" on 75th Anniversary of Relations (Full Text)," *Geopolitical Economy*, May 24, 2024, https://geopoliticaleconomy.com/2024/05/24/china-russia-joint-statement-new-era-75th-anniversary/.

a par with the U.S. with global presence and influence—perhaps in a bipolar great power constellation—also in the Arctic, where China wants to achieve "polar great power" status and influence.[36] As the power asymmetry continues to grow in China's favor, it is likely that a more confident and assertive Beijing will feel entitled to set the tone for the strategic partnership with Russia and will push to accentuate Chinese ideas and solutions—that is, assert itself as a "rule-setter"—and secure what it considers to be Chinese rights and interests in the region. This is already a concern in parts of the Russian elite, which is above all alarmed by "China's claim to global hegemony and the already emerging tendency to dictate its terms to partners and neighbours".[37]

As China gradually moves toward achieving a world-class military, Russia's deep-rooted insecurity and sense of vulnerability will likely also apply to China. This sensitivity will be particularly pronounced in the Arctic, as Russia's great power identity is closely linked to the region. Moscow, therefore, risks having difficulty finding space for and accommodating China as the leading great power there.

Clashes between the two countries' great power identities will thus likely limit the extent to which Russia and China can cooperate on Arctic governance in the long term, but this does not change the fact that in the short and medium term, a pragmatic Russian acceptance of increased Chinese engagement in the Arctic seems to have emerged. There are indications that this is not only because the Russians are being squeezed into the arms of China due to Western isolation and sanctions, but it is also because the Russian elite seems to favor a situation in which Russia's great power role is secured through an expanded strategic partnership with China despite the compromises that Moscow has to make.[38] It appears increasingly as if Putin himself has arrived at this position—Putin has previously rejected the very word "alliance", but in September 2024, Putin stated, "the People's Republic of China and the Russian Federation are

36 Anne-Marie Brady, n. 28

37 Vladimir Kolosov and Maria Zotova, "The 'Pivot to the East' and China in Russian Discourse," *Geopolitics* 28, no. 2 (2023): 879–903.

38 Ibid.

allies in every sense of the word".[39] This may reflect a pragmatic acceptance of the enhanced role placed on cooperation with China.

Conclusion

Although Russian-Chinese cooperation on Arctic governance appears challenging in the long term, we expect to see Russia and China seeking to challenge Arctic governance, including the Arctic Council, in the years to come. The extent and nature of this challenge will depend mainly on how Russia's and China's relations with the U.S. and NATO develop. An improvement in U.S.-Russia relations could prompt Moscow to more actively acknowledge the long-term negative consequences of its strategic partnership with China in the Arctic. Today, however, Moscow sees the most acute threat coming from the U.S. and NATO, necessitating a more compromise-seeking Russian line towards China. As for Chinese assessments of U.S. strategy and actions, any further deterioration in relations with the U.S. could result in Beijing being cautious not to deter Russia and thus carefully considering Russia's need for great power status and recognition. Beijing will go to great lengths to ensure stability and cooperation with its large neighbor, Russia, in order to focus on the confrontation with the U.S. and its allies, which primarily plays out militarily along the long Chinese coast, especially in the South China Sea and the Taiwan Strait.[40] Confronting the U.S. in East Asia is a core priority for Beijing, and ensuring the best conditions for this is given higher priority than ensuring Chinese influence in the Arctic.

The fact that there are probably limits to long-term cooperation between Russia and China in the Arctic is good news for Arctic governance, but the coming years may prove difficult. Russia's pronounced openness to alternatives to the Arctic Council, which China supports, presents a challenge to Arctic

39 President of the Russian Federation, "Открытый Урок «Разговор о Важном»," February 9, 2024, http://kremlin.ru/events/president/news/74982.

40 Jo Inge Bekkevold, "Imperialist Master, Comrade in Arms, Foe, Partner, and Now Ally? China's Changing Views of Russia," In *Russia-China Relations. Emerging Alliance or Eternal Rivals?*, edited by Sarah Kirchberger, Svenja Sinjen, and Nils Wörmer, 41–58 (Springer Cham, 2022), https://link.springer.com/book/10.1007/978-3-030-97012-3.

governance. It will be hard to regain support for and legitimacy in the Arctic Council if China, with Russia's more or less passive acceptance, first establishes an alternative to the Arctic Council and gets more non-Arctic states to join. However, it should be emphasized that there have not yet been any concrete Chinese or joint Russian-Chinese proposals on such an alternative to the Arctic Council. As mentioned above, there are advocates for BRICS to be more inclusive of the Arctic, but this does not (yet) appear to have received official support from Russia or China.

In recent years, Moscow has sought to strengthen cooperation with India—another important BRICS member—in the Arctic. However, this appears to be more on a bilateral level, serving as a counterweight to China, rather than as part of an alternative Arctic institution-building. However, it is expected that concrete BRICS projects and cooperation will be developed in the region, for example, on Arctic research and the Northern Sea Route, which is in the interests of both Russia and China.

What can the Western Arctic states do to preserve Arctic governance in the hands of the Arctic states? The challenge is to find a balance where Western Arctic states can continue to condemn and sanction Russia as long as the war in Ukraine persists, while also showing some accommodation in areas of strong common interest. There is much to be said for establishing a pragmatic dialogue with Russia, e.g., on the future of the Arctic Council. This requires that the Western Arctic states agree on a vision for the future of Arctic governance, including for the Arctic Council, which also includes Russia. This could start with a joint reaffirmation of the council's mandate focused on non-strategic issues such as environmental protection, sustainable development, and the rights of indigenous peoples.[41] It could also be through further protection and promotion of joint Arctic climate research under the auspices of the council and joint monitoring of ecosystem changes and declining sea-ice. It seems

41 Marc Jacobsen and Svein Vigeland Rottem, "The Arctic Council in the Shadow of Geopolitics," The Arctic Institute, May 12, 2025, https://www.thearcticinstitute.org/arctic-council-shadow-geopolitics/.

particularly complicated as long as Trump remains president of the U.S., as he has cast doubt on how the U.S. will approach Russia and cooperation with Western Arctic states in the future, and Trump's repeated threats to "take control of Greenland" do no help.[42] Nevertheless, preventing China from establishing a significant presence and influence in the Arctic is a strong priority for Trump, and there may be an opportunity to leverage this with the focus of other Arctic capitals on maintaining control of Arctic governance in their own hands.

42 Miranda Bryant, "Norway Hands over Arctic Council Intact after "Difficult" Term as Chair," *The Guardian*, December 5, 2025.; Raun, Raun, Rasmus Westh, "Trump Vil Tale Med Putin, Men i Arktisk Råd Ser Norges, Udenrigsminister Ingen Ny Kurs over for Rusland," Altinget, April 2, 2025, https://www.altinget.dk/arktis/artikel/norsk-udenrigsminister-om-arktisk-raad-under-trump-ingen-tegn-paa-ny-kurs-over-for-rusland?SNSubscribed=true&ref=newsletter&refid=altinget-dk-arktis-normal-352&utm_campaign=Altinget%20DK%20-%20Arktis&utm_content=Altinget%20DK%20-%20Arktis%20(Normal)&utm_medium=e-mail&utm_source=nyhedsbrev.

6. The Influence of Sino-Russian Cooperation on Finland's Energy Policy

Mia Landauer

Introduction

As the Arctic has become increasingly central to global geopolitical interests, understanding the impact of Sino-Russian cooperation on Nordic energy policy is crucial. The Arctic region is undergoing significant geopolitical and environmental transformations, with Sino-Russian cooperation playing a crucial role in it. It is particularly shaping policies and practices related to energy governance, resource extraction such as of critical minerals, and related land use in the region. As both China and Russia have been deepening their collaboration in Arctic affairs, this has been affecting the policy landscapes of Nordic countries as well. This chapter elaborates how Sino-Russian cooperation affects Finland's energy policy. It highlights examples of the potential consequences of the cooperation on critical minerals and energy infrastructure development in Finland.

The main research question is, how can Finland maintain its energy and critical minerals security, and mitigate risks potentially arising from this cooperation? Based on a literature review of academic publications, policy documents, reports, and media articles, this chapter provides insights into how Finland, a Nordic Arctic country sharing nearly 1,300 km long border with Russia, historically dependent on Russian energy imports and trade with China, can navigate these challenges and mitigate the risks on sustainable resource management and energy security.

The literature review indicates that Sino-Russian cooperation in the Arctic has significant implications on the energy policies of Nordic nations, particularly Finland. The influencing factors are especially the strategic interests of China

and Russia in Arctic resource development in general, and energy and mining infrastructure investments in particular. The policy recommendations aim to enhance national energy security, promote sustainability, and reduce geopolitical risks associated with energy and critical minerals dependency.

Finland's Energy Policy

Finland's energy policy goals are largely based on national energy and climate goals, but are also aligned with the European Union's green transition (EU Green Deal) objectives and the broader international climate agreements to reduce emissions and achieve climate neutrality by 2050. But Finland's energy and climate strategy has been even more powerful, focusing on the phase-out of fossil fuels earlier than many other EU nations, boosting the use of renewables to above 50 percent, and establishing a legally mandated aim of carbon neutrality by 2035.[1] These goals have been established before Russia's invasion of Ukraine in 2022, but the national energy policy has been reassessed in light of the geopolitical crisis resulting from the invasion and its side effects. The key objectives of Finland's energy policy have become energy-saving measures, reducing energy dependence on Russia, phasing out fossil fuels, and achieving maximum energy self-sufficiency.[2]

Renewable energy has been increasingly adopted, and renewable energy sources already represent about 40 percent of energy end-consumption.[3] The importance of nuclear power has been emphasized since 1970s, but relations with Russia in nuclear power construction have been practically terminated

1 Riku Huttunen, "Valtioneuvoston Selonteko Kansallisesta Energia- ja Ilmastostrategiasta Vuoteen 2030 (2017)," https://tem.fi/documents/1410877/2132296/Kansallinen+energia-+ja+ilmastostrategia+vuoteen+2030+24+11+2016+lopull.pdf;
International Energy Agency (IEA), "Finland 2023 Energy Policy Review," 2023, https://www.iea.org/reports/finland-2023/executive-summary.

2 Ibid.;
Paula Kivimaa (ed.), "Finland: Ambivalent Links Between Energy and Security," in *Security in Sustainable Energy Transitions: Interplay between Energy, Security, and Defence Policies in Estonia, Finland, Norway, and Scotland* (Cambridge: Cambridge University Press, 2024), 94–118, https://doi.org/10.1017/9781009368155.009.

3 Ministry of Economic Affairs and Employment, "Renewable Energy in Finland," n.d., https://tem.fi/en/renewable-energy.

(e.g., the Rosatom project Hanhikivi in northern Finland).[4] The use of peat as a bioenergy source is being gradually phased out,[5] but the development for biomass use is still active. New technology and innovations regarding bioproducts are constantly needed in this regard, and China has been an important partner here (e.g., the Kemi bioproduct mill).[6] Low-carbon and circular economy to some extent unite Finland and China, and the Finnish-Chinese energy cooperation group has selected various demonstration projects in China to concretize the cooperation.[7] In October 2024, two Ministry memorandums of understanding were signed to promote environmental, circular economy, and energy cooperation between Finland and China.[8]

Historical Context and Recent Developments

Previously, energy has been imported to Finland mainly from Russia, but due to the war in Ukraine, Finland has sought to end this central energy dependence.[9] This also applies to natural gas, and Finland has, for example, introduced a floating storage and gas terminal that can cover the natural gas needs of both Finland and Estonia.[10] This is one of the notable initiatives which meets the natural gas needs of both Finland and Estonia. Additionally, Finland has implemented an effective consumer awareness campaign, leading

4 See World Nuclear Association, "Nuclear Power in Finland," 2024, https://world-nuclear.org/information-library/country-profiles/countries-a-f/finland.

5 Svetlana Proskurina, "Carbon Neutrality in the Finnish Energy Sector: Prospects for a Fossil-Fuel Phase Out," *Biofuels, Bioproducts and Biorefining* 18, no. 4 (2024): 1065–1076, https://doi.org/10.1002/bbb.2598.

6 See European Investment Bank, "New Kemi Bioproduct Mill Will Make Pulp and Big Chunk of Finland's Green Electricity," July 2022, https://www.eib.org/en/stories/kemi-bioproduct-mill.

7 Riku Huttunen, Petteri Kuuva, Mika Kinnunen, Björn Lemström and Pekka Hirvonen, "Carbon Neutral Finland 2035 – National Climate and Energy Strategy," Ministry of Economic Affairs and Employment 2022, http://urn.fi/URN:ISBN:978-952-327-843-1, 55.

8 Ministry of Economic Affairs and Employment, "Finland to Strengthen Environmental and Circular Economy Cooperation with China," October 2024, https://valtioneuvosto.fi/en/-/finland-to-strengthen-environmental-and-circular-economy-cooperation-with-china.

9 Tere Vadén, Antti Majava, Jari M. Korhonen and Jussi T. Eronen, "Energy Without Russia: The Consequences of the Ukraine War and the EU Sanctions on the Energy Sector in Europe: Country Report Finland, Friedrich Ebert Stiftung, 2023, https://library.fes.de/pdf-files/bueros/budapest/20613.pdf.

10 Gasgrid Finland, "How the LNG Floating Terminal Project Was Realized," n.d., https://gasgrid.fi/en/fsru-en/how-the-lng-floating-terminal-project-was-realized/.

to a substantial decrease in energy demand.[11] However, some economic sectors, such as transport and key industrial activities, are still particularly dependent on fossil fuels.[12] This is despite the fact that electrification of the transport sector is taking place and some large energy companies such as Helen Oy in Helsinki have stopped using coal as a primary energy source by recently closing its last coal-fired plant in April 1, 2025, among other measures.[13]

Notwithstanding the successes of Finland in climate change mitigation, difficulties still exist. Moreover, a third of Finland's energy still comes from imported fossil fuels.[14] Additionally, forestry and land use change, which historically helped Finland offset a large amount of its greenhouse gas emissions, started to contribute to emissions in 2021.[15] Finland's overall climate and renewable energy policy will be greatly impacted by whether this is a singular incident or the start of a long-term trend.[16]

However, Finland has been able to diversify its energy sources after the Russian invasion in Ukraine, replacing Russian imports with alternatives. This includes increased use of LNG and renewable energy sources (e.g., wind, solar). The decoupling has led to higher energy prices, but Finland has managed to stabilize electricity prices with the new nuclear reactor, Olkiluoto 3, and is focusing on increasing wind and solar power, and exploring hydrogen as a potential solution for energy storage and utilization.[17]

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11 International Energy Agency (IEA), "Finland 2023 Energy Policy Review," 2023, https://www.iea.org/reports/finland-2023/executive-summary.

12 Ibid.

13 Helen Oy, "Carbon Neutrality Programme," n.d., https://www.helen.fi/en/about-us/sustainability/carbon-neutrality-programme.

14 Svetlana Proskurina, "Carbon Neutrality in the Finnish Energy Sector: Prospects for a Fossil-Fuel Phase Out," *Biofuels, Bioproducts and Biorefining* 18, no. 4 (2024): 1065–1076, https://doi.org/10.1002/bbb.2598.

15 Statistics Finland, "Greenhouse Gas Emissions in 2021 Became Revised – the Land Use Sector Was Confirmed a Source of Emissions," December 2022, https://stat.fi/en/publication/cktldez2g39g20c53gh3lp5jo.

16 International Energy Agency (IEA), "Finland 2023 Energy Policy Review," 2023, https://www.iea.org/reports/finland-2023/executive-summary, 4.

17 Riku Huttunen, Petteri Kuuva, Mika Kinnunen, Björn Lemström and Pekka Hirvonen, "Carbon

Due to strengthened cooperation with China such as with the energy infrastructure projects,[18] Russia has become less dependent on European markets, increasing China's influence in energy markets which could affect energy security in Europe, including Finland. According to Pye et al.,[19] this means that it is necessary to continue searching for alternative energy sources and strengthen one's own energy security. The green transition requires a drastic reduction in fossil fuel imports and an increase in renewable energy and energy efficiency.[20]

In terms of broader EU goals, Finland should particularly consider the potential influence of Sino-Russian cooperation on the EU energy policy goals more broadly. When examining geographical and geopolitical significance, the EU's energy transition towards climate neutrality reshapes its external energy relations, creating new dependencies and opportunities: Giuli and Oberthür[21] emphasize that the EU's external energy policy must balance the principles of open markets with strategic considerations to maintain its leadership in the global energy transition. The Russia-China cooperation could increase geopolitical risks that might affect Finland's energy system.[22] This could complicate the EU's and Finland's efforts to reduce greenhouse gas emissions and achieve carbon neutrality.[23] Finland needs to be prepared for potential

Neutral Finland 2035 – National Climate and Energy Strategy," Ministry of Economic Affairs and Employment 2022, http://urn.fi/URN:ISBN:978-952-327-843-1, 55.

18 See Nino Sabanadze, Antoine Vasselier and Gudrun Wiegand, "*China-Russia Alignment: A Threat to Europe's Security,* MERICS, Chatham House and GMF, 2024.

19 Steve Pye, Michael Bradshaw, Jack Price, Dan Zhang, Caroline Kuzemko, James Sharples, et al., "The Global Implications of a Russian Gas Pivot to Asia," *Nature Communications* 16, no. 1 (2025): 386.

20 Marco Giuli and Sebastian Oberthür, "The EU's External Energy Governance in the Age of the Energy Transition," in *Handbook on the Geopolitics of the Energy Transition*, edited by Manfred Hafner and Simone Tagliapietra (Cheltenham: Edward Elgar Publishing, 2023), 404–419, https://www.elgaronline.com/edcollchap-oa/book/9781800370432/book-part-9781800370432-30.xml.

21 Ibid.

22 Henrik von Essen, "*Future Scenarios of Russia-China Relations: Not Great, Not Terrible*," NKK/SCEEUS Report No. 3 (2023): 1–27.

23 See Jorge Sampedro, David J. Van de Ven, Roni Horowitz, Carles Rodés-Bachs, Niki Frilingou, Alexandros Nikas, et al., "Energy System Analysis of Cutting off Russian Gas Supply to the

disruptions in energy supply and geopolitical tensions that could impact energy markets and prices.[24]

Increased but Limited Sino-Russian Cooperation in the Arctic

The Sino-Russian cooperation in the Arctic focuses on energy, critical minerals, shipping, military and security issues, as well as governance. According to Andersson,[25] the cooperation between China and Russia has increased following Russia's full-scale invasion of Ukraine, but it is limited by strategic distrust, differing strategic interests, and, to some extent, Western sanctions. Biedermann[26] emphasizes that the EU, NATO, and the Nordic countries are reassessing their strategic direction specifically in response to China's Arctic engagement with Russia. In terms of energy cooperation, China has helped to maintain Russia's war economy by its energy imports but some collaborations such as Arctic LNG projects are paused due to the Western sanctions.[27]

The Arctic Council, historically dominated by Arctic states, faces challenges from emerging transnational cooperation models, including China-led initiatives and furthermore, China's investments in Arctic research, renewable energy, and infrastructure (e.g., LNG projects with Russia) highlight its long-term strategic interest in the region.[28] After the Crimea crisis, Russia sought

European Union," *Energy Strategy Reviews* 54 (2024): 101450.

24 Emma Hakala, "Climate Change and Security: Preparing for Different Impacts," FIIA Briefing Paper 369 (Helsinki: FIIA Publications, 2023), https://www.fiia.fi/en/publication/climate-change-and-security-preparing-for-different-impacts.

25 Peter Andersson, "Sino-Russian Cooperation in the Arctic: Implications for Nordic Countries and Recommended Policy Responses," NKK / SCEEUS report No. 5, 2024, https://www.ui.se/globalassets/ui.se-eng/publications/other-publications/sino-russian-cooperation-in-the-arctic_implications-for-nordic-countries-and-recommended-policy-responses.pdf.

26 Rasmus Biedermann, "China's Impact on the European Union's Arctic Policy: Critical Junctures, Crossovers, and Geographic Shifts," *Asia Europe Journal*, 19, no. 4 (2021): 467–487, https://doi.org/10.1007/s10308-021-00605-7.

27 Indraja Rao and Matthias Gruenig, "Sanction-Proof? Russia's Arctic Ambitions and the China Factor," The Arctic Institute, Center for Circumpolar Security Studies, 2024, https://www.thearcticinstitute.org/sanction-proof-russias-arctic-ambitions-china-factor/.

28 Maria Lagutina, Yana Leksyutina and Alexander Sergunin, "Revisiting the Arctic Region's Cooperative Network: The Role of China," *Arctic Yearbook,* 2024.

Chinese financial support for Arctic projects, leading to stronger Sino-Russian cooperation, including the Polar Silk Road. The Nordics, initially supportive of China's Arctic engagement, have become more cautious due to concerns over Russian military expansion and China's strategic ambitions.[29]

Sino-Russian Dynamics Concerning Critical Minerals and Supply Chains

Russia is cautious in its approach to Chinese investment even as China's dominance is visible in technology companies, industry and construction companies.[30] Regarding critical raw materials (CRMs) and clean energy technologies, the EU has had significant reliance on imports from countries like China and Russia, but will now have to focus even more on other countries like Chile, Guinea, Brazil or Mexico.[31] China controls a significant portion of the global market for critical minerals, making it a key player in the global mineral economy.[32] This monopoly poses challenges for Finland and other EU countries that aim to reduce their reliance on foreign raw materials and strengthen their own production.[33] Russia's invasion of Ukraine and its collaboration with China in mineral projects increase geopolitical uncertainty and cause tensions. This directly affects Finland's mineral policy, as Finland seeks to ensure its mineral supply and reduce dependence on unstable regions.[34]

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29 Rasmus Biedermann, "Exploring Sino-Russian-Nordics Triangular Relations: Complex Balancing along the Polar Silk Road," *Journal of Contemporary European Studies* 30, no. 4 (2022): 623–639, https://doi.org/10.1080/14782804.2021.1924640.

30 Henrik von Essen, *Russia-China Economic Relations Since the Full-Scale Invasion of Ukraine* (Stockholm: Stockholm Centre for Eastern European Studies, 2023), https://sceeus.se/publikationer/russia-china-economic-relations-since-the-full-scale-invasion-of-ukraine-2/.

31 See Bernd Müller, Luciana Ghiotto and Lucía Bárcena, *The Raw Materials Rush: How the European Union Is Using Trade Agreements to Secure Supply of Critical Raw Materials for Its Green Transition* (Amsterdam: Transnational Institute, 2024), https://www.tni.org/en/publication/the-raw-materials-rush.

32 Zhou Weihuan, "Why China's Critical Mineral Strategy Goes Beyond Geopolitics," World Economic Forum, 2024, https://www.weforum.org/stories/2024/11/china-critical-mineral-strategy-beyond-geopolitics/.

33 Tuula Kangaspunta, Sanna Tasa, Mikko Kokko, Matti Eskola and Eero Heininen, "*Kansallinen Mineraalistrategia* [National Mineral Strategy]," Prime Minister's Office, 2024, http://urn.fi/URN:ISBN:978-952-383-746-1.

34 Anne Nygaard, "The Geopolitical Risk and Strategic Uncertainty of Green Growth after the Ukraine Invasion: How the Circular Economy Can Decrease the Market Power of and Resource

As Andersson[35] points out, Nordic nations should reduce reliance on Chinese minerals by developing EU-based supply chains. Finland's mineral strategy[36] emphasizes the need to strengthen Europe's strategic autonomy and transition to a clean energy system. This means Finland aims to increase its own mineral production and value-added processing to reduce reliance on actors like China and Russia.[37]

While China and Russia collaborate on mineral projects, Finland and other EU countries strive to enhance their own cooperation and develop sustainable mining practices. This includes investments in research and innovation to improve mineral availability and reduce environmental impacts.[38] As such, the Finnish Mining Association[39] considers that Finland's mineral policy is closely tied to changes in the global mineral economy and geopolitical tensions, and it is important for Finland to continue playing an active role in developing the mineral sector and collaborating with other EU countries.

According to the comprehensive report of Andersson,[40] in terms of Sino-Russian dynamics regarding critical minerals and supply chains, Russia seeks Chinese investment in Arctic mineralprojects but remains wary of over-reliance on China, which dominates processing technologies: This dynamic affects the

Dependency on Critical Minerals," *Circular Economy and Sustainability* 3, no. 2 (2023): 1099–1126.

35 Peter Andersson, "Sino-Russian Cooperation in the Arctic: Implications for Nordic Countries and Recommended Policy Responses," NKK / SCEEUS report No. 5, 2024, https://www.ui.se/globalassets/ui.se-eng/publications/other-publications/sino-russian-cooperation-in-the-arctic_implications-for-nordic-countries-and-recommended-policy-responses.pdf.

36 Tuula Kangaspunta, Sanna Tasa, Mikko Kokko, Matti Eskola and Eero Heininen, "*Kansallinen Mineraalistrategia* [National Mineral Strategy], Prime Minister's Office, 2024, http://urn.fi/URN:ISBN:978-952-383-746-1.

37 Ibid.

38 Ibid.

39 Kaivosteollisuus ry, "Mineraalipolitiikka," 2024, https://www.kaivosteollisuus.fi/tietoa-meista/tavoitteemme/mineraalipolitiikka/.

40 Peter Andersson, "Sino-Russian Cooperation in the Arctic: Implications for Nordic Countries and Recommended Policy Responses," NKK / SCEEUS report No. 5, 2024, https://www.ui.se/globalassets/ui.se-eng/publications/other-publications/sino-russian-cooperation-in-the-arctic_implications-for-nordic-countries-and-recommended-policy-responses.pdf.

strategic decisions of Nordic countries regarding their own mineral supply chains that they are now developing to reduce reliance on Chinese minerals, which involves investing in local processing capabilities and securing alternative sources of critical minerals.[41]

Nordic Defense and New Energy Projects

The EU, NATO, and Nordic states are reassessing their strategic posture in response to China's Arctic engagement with Russia.[42] However, military presence and radar systems limit land use development towards further development of wind farms. This is because Nordic countries, particularly Finland, are enhancing defense coordination within NATO and NORDEFCO to address security risks posed by increased military activities in the Arctic.[43] Enhancing defense within NATO and NORDEFCO will most likely halt certain planned energy projects, for instance wind farm development that might affect radar systems. Especially in the eastern border area it is unlikely that wind farms can gain acceptance of the Finnish Defence Forces. This increases land use pressure on other areas.

The Arctic has become a geopolitical competition zone due to climate change, and Western sanctions on Russia. China has pushed for inclusivity and has successfully positioned itself as an Arctic actor by focusing on scientific research, shipping, and resource extraction. The Belt and Road Initiative (BRI) and Polar Silk Road (PSR) link China's Arctic ambitions with global trade routes.[44]. China's partnership with Russia on Arctic energy projects (e.g., Yamal LNG) has reduced EU influence in Arctic governance while China's rise in Arctic affairs has reshaped EU policy, leading to greater geopolitical competition and

41 ibid.

42 Rasmus Biedermann, 'China's Impact on the European Union's Arctic Policy: Critical Junctures, Crossovers, and Geographic Shifts', *Asia Europe Journal*, 19, no. 4 (2021), 467–487, https://doi.org/10.1007/s10308-021-00605-7.

43 Peter Andersson, *Sino-Russian Cooperation in the Arctic: Implications for Nordic Countries and Recommended Policy Responses* (NKK / SCEEUS report No. 5, 2024), https://www.ui.se/globalassets/ui.se-eng/publications/other-publications/sino-russian-cooperation-in-the-arctic_implications-for-nordic-countries-and-recommended-policy-responses.pdf.

44 Luis Alejandro Roja, *Arctic Resource Compilation: China and Russia's Involvement in the Arctic* (Air University, 2025), https://shorturl.at/GyfYM.

realignment:[45] the EU now prioritizes infrastructure, trade, and environmental sustainability in the Barents region, where it is considered to have greater influence. However, if China deepens its Arctic engagement with Russia, tensions over governance, security, and sustainability will increase in Arctic countries,[46] including Finland. Giuli and Oberthür[47] outline three potential scenarios for the EU's external energy policy: commercial, geopolitical, and normative, and consider that the current approach appears to be a hybrid model, focusing on economic considerations while addressing geopolitical risks. The EU's decarbonization efforts will reduce its dependence on fossil fuel suppliers, potentially altering geopolitical relations.[48]

Finland's Energy Transition and Energy Security

According to Guo et al.,[49] Finland and China have developed a strategic partnership in energy transition, leveraging their complementary strengths: Finland's energy policy is shaped by EU regulations, focusing on carbon neutrality, renewable energy, and energy security. China has made strides in reducing coal dependency and increasing clean energy use, but it still faces challenges in balancing economic growth with environmental goals. The authors highlight policy instruments such as emission trading in Finland and China's gradual shift towards market-oriented energy policies. Furthermore, they argue that Sino-Finnish cooperation in energy transition has been largely business-driven, with potential for expansion in regional cooperation, research collaboration, and technology transfer.

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45 Rasmus Biedermann, "China's Impact on the European Union's Arctic Policy: Critical Junctures, Crossovers, and Geographic Shifts," *Asia Europe Journal* 19, no. 4 (2021): 467–487, https://doi.org/10.1007/s10308-021-00605-7.

46 Iselin Stensdal and Grete H. Heggelund (eds), *China-Russia Relations in the Arctic: Friends in the Cold?* (Cham: Springer Nature, 2024).

47 Marco Giuli and Sebastian Oberthür, "The EU's External Energy Governance in the Age of the Energy Transition," in *Handbook on the Geopolitics of the Energy Transition*, edited by Manfred Hafner and Simone Tagliapietra (Cheltenham: Edward Elgar Publishing, 2023), 404–419, https://www.elgaronline.com/edcollchap-oa/book/9781800370432/book-part-9781800370432-30.xml.

48 Ibid.

49 Wei Guo, Jiahua Pan, Lijun Liang, Jari Kuusisto and Yalin Ma, "A Synthesis of Energy Transition Policies in Finland, China," *Bulletin of the Chinese Academy of Sciences* 36 (2022): 2022002, https://doi.org/10.1051/bcas/2022002.

As Finland has been previously highly dependent on Russian energy imports, including oil, natural gas, coal, and wood,[50] this dependence has posed energy security risks, especially in light of geopolitical tensions and conflicts. According to IEA,[51] in response to the increased cooperation between China and Russia, and the subsequent geopolitical risks, Finland has made significant efforts to diversify its energy sources. Examples of this are that Finland has been replacing Russian oil imports from other countries such as Norway, the UK and the U.S. The cessation of natural gas imports via the pipeline from Russia has been mitigated by increased LNG imports from global markets.[52] Finland has significantly expanded its renewable energy production, particularly in wind and solar power, to reduce reliance on fossil fuels. Western sanctions on Russia have impacted Sino-Russian energy projects in the Arctic such as Chinese participation in projects like the Yamal LNG and Arctic LNG.[53] Some energy projects have been paused which has led to a cautious approach from Chinese companies, balancing support for Russian projects with the need to avoid sanctions. Andersson[54] suggests that Western nations, including Nordic countries, are encouraged to tighten enforcement of sanctions and consider price caps on Russian gas.

Summary of the Findings

The chapter provides a review of Finland's energy policy in the context of Sino-Russian cooperation, highlighting some of the main challenges. The policy recommendations aim to enhance energy security, promote sustainability,

50 Veli-Pekka Tynkkynen, "The Finnish "Ruxit"," in *Debt Management Annual Review 2022*, https://www.treasuryfinland.fi/annualreview2022/the-finnish-ruxit-decoupling-from-russian-energy-speeds-up-energy-transition/.

51 International Energy Agency (IEA), "Finland 2023 Energy Policy Review," 2023, https://www.iea.org/reports/finland-2023/executive-summary.

52 Ibid.

53 Anna Korppoo and Yuhan Wang, "Sino–Russian Arctic Gas Cooperation amid New Geopolitical Realities: Impacts and Perceptions," in *China-Russia Relations in the Arctic: Friends in the Cold?* (Cham: Springer Nature Switzerland, 2024), 181–211.

54 Peter Andersson, "Sino-Russian Cooperation in the Arctic: Implications for Nordic Countries and Recommended Policy Responses," NKK / SCEEUS report No. 5, 2024, https://www.ui.se/globalassets/ui.se-eng/publications/other-publications/sino-russian-cooperation-in-the-arctic_implications-for-nordic-countries-and-recommended-policy-responses.pdf.

and reduce geopolitical risks associated with energy and critical minerals dependency.

Finland has been historically depended on Russian energy imports, but geopolitical tensions have prompted a shift towards alternative energy sources. Increased military activities and strategic cooperation of Russia and China in the Arctic pose security risks that might impact Finland's energy system. As a response to this, Finland is enhancing defense coordination within NATO and NORDEFCO to address these risks.

Finland aims to achieve climate neutrality by 2035, with a significant increase in renewable energy usage. Renewable energy sources already represent about 40 percent of Finland's energy end-consumption. The cessation of natural gas imports from Russia has been mitigated by increased LNG imports and the deployment of a Floating Storage and Regasification Unit (FSRU). Finland has diversified its energy sources by increasing the use of LNG, wind, solar power, and nuclear energy.

Sino-Russian cooperation also affects the global market for critical minerals, posing challenges for Finland and other EU countries while indirectly also affecting energy security. Finland seeks to reduce reliance on foreign raw materials by strengthening its own mineral production and value-added processing.

According to the literature review, Sino-Russian cooperation in the Arctic has led to significant adjustments in the energy policies of Nordic nations, especially Finland. These adjustments include diversifying energy sources, enhancing energy security, developing alternative supply chains for critical minerals, addressing environmental risks, and strengthening defense coordination (Table 6.1).

Furthermore, the literature sources indicate that the Nordic states, including Finland, should support the Arctic Council to maintain governance stability and limit China's influence. Despite official rhetoric about deepening ties, the Sino-Russian Arctic partnership is constrained by mutual distrust, Western

sanctions, and strategic divergences. Finland and other Nordic countries should aim to mitigate the risks associated with Sino-Russian cooperation and ensure a stable and secure energy future.

Table 6.1. Main Findings

Impacts	Responses
Main impact of Sino-Russian cooperation	As Sino-Russian cooperation in the Arctic significantly influences Finland's energy policy, policy adjustments are needed, especially concerning energy security and sustainable land use.
Impact on critical minerals and supply chains	Sino-Russian cooperation affects the global market for critical minerals, posing challenges for Finland and other EU countries. Finland seeks to reduce reliance on foreign raw materials by strengthening its own mineral production and value-added processing. This likely increases land use pressure and potential land use conflicts.
Indirect impacts related to geopolitical risks	Increased military activities in the Arctic pose security risks that impact Finland's energy system indirectly. Finland is enhancing defense coordination within NATO and NORDEFCO to address these risks.

Policy Recommendations

Based on the findings, the following policy recommendations are provided to enhance Finland's energy security, promote sustainability, and mitigate geopolitical risks associated with energy and critical minerals dependency on Russia and / or China, or related to Sino-Russian collaboration more broadly:

Diversify energy sources and accelerate the development of renewables such as wind, solar, and biomass energy projects to reduce reliance on fossil fuels and energy imports. Invest in advanced energy storage solutions to manage the intermittency of renewable sources.

Upgrade energy infrastructure to improve energy efficiency and reduce energy losses. Implement energy efficiency measures such as improving building insulation and promoting public transportation.

Support local energy initiatives, to enhance energy security and reduce dependency on imports. Enhance domestic production capabilities for renewable energy. Launch campaigns to educate the public on the importance of energy conservation and the benefits of reducing dependency on foreign energy sources.

Establish and strengthen alternative supply routes and partnerships with other countries to diversify energy imports.

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7. A Strategic Partnership with Limits: How to Respond to Sino-Russian Arctic Cooperation and the Lack Thereof

Lukas Wahden

It has become common for analysts in the West to refer to relations between Russia and China in the Arctic as a 'partnership', and with good reason: for one thing, the Russian and Chinese governments themselves use this term. Ever since Russia's last-minute acceptance of China's application to become an observer state at the Arctic Council in 2013, Moscow and Beijing have pledged to expand their cooperation on Arctic affairs.[1] Starting in 2018, Russia and China institutionalized their Arctic cooperation dialogues in the form of a regular bilateral consultations mechanism.[2] In September 2021, the Ministries of Foreign Affairs of Russia and China announced that they would pursue Arctic cooperation in the 'spirit of a comprehensive strategic partnership'.[3] In February 2022, Beijing and Moscow labelled their overall relationship a 'comprehensive strategic partnership without limits' and promised to further expand their cooperation in the Arctic.[4] Many similar declarations

1 Lukas Wahden, "Big Words, Small Deeds: Russia and China in the Arctic," IRSEM Research Paper No. 141, Institut de Recherche Stratégique de l'École Militaire, February 28, 2024, https://www.irsem.fr/storage/file_manager_files/2025/03/nr-irsem-141-wahden.pdf.

2 Ministry of Foreign Affairs of the People's Republic of China, "China and Russia hold the 7th Round of Dialogue on Arctic Affairs," https://www.mfa.gov.cn/eng/wjb/zzjg_663340/dozys_664276/xwlb_664278/202406/t20240606_11397975.html.

3 Ministry of Foreign Affairs of the Russian Federation, "O rossiysko-kitayskikh mezhmidovskikh konsultatsiyakh po Arktike [On Russian-Chinese inter-ministerial consultations on the Arctic]," September 29, 2024, https://mid.ru/ru/foreign_policy/news/1971799/.

4 The Kremlin, "Joint Statement of the Russian Federation and the People's Republic of China on Deepening the Comprehensive Strategic Partnership," February 4, 2022, https://www.en.kremlin.ru/supplement/5770.

followed thereafter.[5]

At first glance, China's and Russia's interests in the region do indeed appear to be complementary. Most importantly, Moscow plans to expand the extraction of oil and gas in the Russian Arctic.[6] China, in turn, sees Russia as a reliable supplier of hydrocarbons and has consistently expanded its imports of these products from Russia.[7] China aims to meet its decarbonization targets by replacing much of the coal it consumes with Liquefied Natural Gas (LNG), which it deems a 'bridge' to cleaner renewable energies.[8] A majority of Russia's current and planned Arctic extraction projects produce LNG. All of these projects target the Chinese market, and they have long offered attractive investment deals to Chinese banks and partner companies.[9]

Russia also wants to turn the Northern Sea Route (NSR) into a year-round shipping corridor. It hopes to benefit from passage fees and to position itself as a key node in global maritime logistics.[10] China supports this ambition. A successful operationalization of the NSR would allow Chinese shipping firms to cut delivery times on the benchmark Shanghai-Rotterdam container route

5 Malte Humpert, "Putin and Xi Discuss Further Deepening of Arctic Partnership," *High North News*, March 23, 2023, https://www.highnorthnews.com/en/putin-and-xi-discuss-further-deepening-arctic-partnership.

6 Pier Paolo Raimondi, "The Role of the Arctic in Russia's Energy Strategy: Features, Objectives and Perspectives following Russia's War in Ukraine," Istituto Affari Internazionali, February 14, 2024, https://www.iai.it/sites/default/files/9788893683142.pdf.

7 Interfax, "Russia becomes leading gas supplier to China—Putin in conversation with Xi," https://interfax.com/newsroom/top-stories/109288/.

8 S&P Global Commodity Insights, "China LNG Expansion: Structural Shifts and Strategic Planning," March 1, 2018, https://www.spglobal.com/commodityinsights/plattscontent/_assets/_files/en/specialreports/lng/sr-china-lng-expansion-032018.pdf.

9 Olesya Astakhova, "China is Set to Import More Russian LNG in 2025, Ambassador Says," *Reuters*, April 15, 2025, https://www.reuters.com/markets/commodities/china-is-set-import-more-russian-lng-2025-ambassador-says-2025-04-15/ (accessed May 30, 2025).

10 "Projects around Northern Sea Route will bring in 10 trillion rubles of tax income until 2035 [Proekty vdol' Sevmorputi prinesut 10 triln rubley nalogovykh doppostupleniy do 2035 goda]," *TASS*, April 15, 2025, https://tass.ru/ekonomika/17446295.

by more than a quarter.[11] The route could also enable the People's Liberation Army (PLA) Navy to circumvent U.S.-controlled maritime chokepoints, such as the Malacca Strait and Suez Canal, in case of an armed conflict.[12] In a series of official documents, including the 14th Five-Year Plan, the Chinese government even floated the idea of financing a 'Polar Silk Road', an offshoot of the Belt and Road Initiative along Russia's northern coastlines.[13] This maritime cooperation also has a military component, as the navies of China and Russia have recently held joint exercises in Arctic and adjacent waters, including in the Bering Strait and close to U.S. territorial waters.[14]

Lastly, China has backed Russia in some of the disputes over the future of the Arctic governance system. Russia maintains that the suspension of regional cooperation by the 'Arctic Seven' in the wake of its assault on Ukraine was unjustified.[15] China has publicly declared that it would not recognize the Arctic Council without Russia.[16] In official statements, Beijing and Russia have both called for 'disagreements' over the war in Ukraine to be bracketed out of cooperation dialogues in the Arctic.

Taken in sum, those complementary interests should indeed have provided a

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11 Pengjun Zhao, Yunlin Li, and Yu Zhang, "Ships are projected to navigate whole year-round along the North Sea route by 2100," Communications Earth & Environment 5, 407 (2024), https://www.nature.com/articles/s43247-024-01557-7.

12 Wenrui Zhang and Shawuya Jigeer, "China–Russia Cooperation in the Northern Sea Route Development," *International Organisations Research Journal* 20, no. 1 (2024): 46–74, 2024, https://www.researchgate.net/publication/390137167_China-Russia_Cooperation_in_the_Northern_Sea_Route_Development.

13 Trym Eiterjord, "The 14th Five-Year Plan and China's Arctic Interests," The Arctic Institute, 2024, November 23, 2023, https://www.thearcticinstitute.org/14th-five-year-plan-chinas-arctic-interests/.

14 "Chinese and Russian coast guard ships sail through the Bering Sea together, US says," *Associated Press*, October 2, 2024, https://apnews.com/article/us-china-russia-coast-guard-356dfbf91a4861798c9b920196c4bc50.

15 Ministry of Foreign Affairs of Russia, "Comment by Foreign Ministry Spokeswoman Maria Zakharova on the situation around the Northern Dimension and the Barents Euro-Arctic Council (BEAC)," March 11, 2022, https://mid.ru/en/maps/no/1803807/.

16 Melody Schreiber, "China Will Not Recognize an Arctic Council Without Russia, Envoy Says," October 17, 2022, https://www.arctictoday.com/china-will-not-recognize-an-arctic-council-without-russia-envoy-says/.

solid groundwork for a Sino-Russian Arctic 'partnership'. In practice, however, China and Russia have often struggled to convert their Arctic announcements into action—with many such attempts altogether stalled. A discrepancy has thus emerged between the promises of Arctic coordination contained in both countries' public statements, and the reality of Sino-Russian Arctic cooperation on the ground. All debates on whether to classify Sino-Russian Arctic cooperation as a 'partnership', as well as how to respond to it, must take this discrepancy into account. While Russia and China proclaim to have established a 'partnership' in the Arctic, a more detailed examination makes it clear that their cooperation in the region is bounded.

For one thing, China's appetite for Russia's Arctic hydrocarbons is large—but not unlimited. After Russia's 2014 annexation of Crimea, Sino-Russian energy cooperation in the Arctic initially expanded rapidly. In January 2014, the China National Petroleum Corporation (CNPC) acquired a 20 percent stake in Novatek's Yamal LNG project, which matched a share held by Total Energies since 2011.[17] The Silk Road Fund became the consortium's fourth-largest partner in 2015, securing a 9.9 percent stake.[18] The Yamal LNG project developed the Yuzhno-Tambeyskoye natural gas field on the Yamal Peninsula, with production of natural gas and gas condensate commencing in 2017. In May 2014, Gazprom and CNPC concluded a US$ 400 billion contract for gas supplies via the Power of Siberia 1 pipeline.[19] The rapid finalization of this agreement, following protracted negotiations, was widely interpreted as a reflection of China's implicit support for Russia in the wake of the 2014 war in Ukraine. Shortly thereafter, the China Import-Export Bank and China Development Bank extended an emergency loan to Novatek to alleviate the

17 "Novatek sells 20% stake in Yamal LNG to CNPC," LNG Industry, January 15, 2014, https://www.lngindustry.com/liquid-natural-gas/15012014/novatek_sells_twenty_percent_stake_in_yamal_lng_project_to_cnpc/.

18 "Novatek Sells Yamal LNG stake to China's Silk Road Fund," Offshore Energy, September 3, 2015, https://www.offshore-energy.biz/novatek-sells-yamal-lng-stake-to-chinas-silk-road-fund/.

19 Alec Luhn and Terry Macalister, "Russia signs 30-year deal worth about $400bn to deliver gas to China," *The Guardian*, May 21, 2014, https://www.theguardian.com/world/2014/may/21/russia-30-year-400bn-gas-deal-china

effects of Western financial sanctions on the Yamal LNG project.[20] This turned China into the largest foreign stakeholder in Russian Arctic energy projects.

After Russia's full-scale invasion of Ukraine in 2022 and the exit of Western companies from the region, however, no similar buy-up of abandoned Russian Arctic energy assets by Chinese companies occurred. Chinese funding did enable Novatek to continue operations at Yamal LNG, while also keeping the financing of its Arctic LNG 2 site on track. But plans for future LNG sites in the Russian Arctic, such as Obskiy LNG and Murmansk LNG, failed to attract new Chinese investment—and had to be postponed indefinitely.[21]

The Chinese government has also been dragging its feet on negotiations over the Power of Siberia 2 pipeline, which Russia hopes might soon link its Arctic Yamal peninsula to China via Siberia and Mongolia.[22] Given several significant delays, it is currently unclear whether the pipeline will ever be built. In August 2024, Mongolia decided to omit any mentions of the pipeline from a new national energy action plan.[23] In April 2025, China then publicly considered whether to support a more recently proposed alternative pipeline through Kazakhstan.[24] The reasons for the failure of Power of Siberia II are partly economic: China already buys a significant amount of natural gas from Russia, and considers itself to be in a position to demand domestic gas pricing from Moscow. This would, however, render the pipeline financially unsustainable

20 Atle Staalesen, "Chinese mega-deals in Yamal LNG," *The Barents Observer*, May 2, 2014, https://www.thebarentsobserver.com/news/chinese-megadeals-in-yamal-lng/102214.

21 Vladimir Afanasiev, "Novatek Suspends Two Major LNG Projects as Sanctions Bite: Report," Upstream Online, September 23, 2024, https://www.upstreamonline.com/lng/novatek-suspends-two-major-lng-projects-as-sanctions-bite-report/2-1-1713670.

22 Kandy Wong, "China hedges its energy bets as Russia pipeline plan remains on hold," *South China Morning Post*, February 13, 2025, https://www.scmp.com/economy/global-economy/article/3298490/china-hedges-its-energy-bets-russia-pipeline-plan-remains-hold.

23 "Mongolia Omits Russia-to-China Power of Siberia 2 Pipeline Project from Action Plan for Years Ahead," IntelliNews, August 19, 2024, https://www.intellinews.com/mongolia-omits-russia-to-china-power-of-siberia-2-pipeline-project-from-action-plan-for-years-ahead-339259/.

24 "China Spikes Kremlin's Proposed Power of Siberia 2 Alternative," *The Moscow Times*, April 17, 2025, https://www.themoscowtimes.com/2025/04/17/china-spikes-kremlins-proposed-power-of-siberia-2-alternative-a88767.

from a Russian point of view. But Beijing also pursues a national energy security strategy that heavily prioritizes diversifying the range of its oil and gas suppliers. China wants to avoid entering into any overreliance, including on Russia, on national security grounds.[25]

China has also shown much sensitivity to Western-imposed sanctions on Russian technology purchases. In 2023 and 2024, Chinese suppliers were approached to substitute critical technologies required by Russia's Arctic LNG sites. Western sanctions have curtailed the export of deepwater and Arctic offshore oil extraction technologies, LNG liquefaction technologies and modules, and ice-class shipping and infrastructure components. The highest-quality versions of those technologies are still produced by European and U.S. companies, as well as firms in South Korea and Japan—all countries that have placed sanctions on Russia. The exit of these companies from the country following the imposition of sanctions created substantial bottlenecks for Moscow, especially at the Arctic LNG 2 construction site. And while Chinese companies were asked by Russian partners to fill the resulting technology gaps, these overtures were not always successful.

As an illustrative example, Novatek's Arctic LNG 2 site relies on the assembly of large, prefabricated gravity-based LNG modules abroad, and their subsequent shipment to Russia. The state-owned China National Offshore Oil Corporation (CNOOC) and China's Wison New Energies took over the fabrication of these modular structures and processing technologies after European contractors left Russia. But U.S. sanctions increasingly deterred Wison from fulfilling its contractual obligations to Novatek, and in February 2025 the company quit the Russian market.[26] And while CNOOC did not fully withdraw from Russia, reports in 2023 indicated the company's hesitancy to deepen its engagement—

25 Alice Li, "China's energy supply 'quite secure' amid diversified imports, expert contends," *South China Morning Post*, March 11, 2025, https://www.scmp.com/economy/china-economy/article/3301830/chinas-energy-supply-quite-secure-amid-diversified-imports-expert-contends.

26 Malte Humpert, "Wison New Energies Successfully Offloads Sanctioned Zhoushan Yard to Chinese State-Owned Entity," gCaptain, February 19, 2025, https://gcaptain.com/wison-new-energies-successfully-offloads-sanctioned-zhoushan-yard-to-chinese-state-owned-entity/.

for example, by slowing down the dispatch of executives to Russian sites and delaying certain joint technology ventures.[27] The company appeared to focus on fulfilling existing commitments without new expansion. The launch of Arctic LNG 2 at full production capacity was delayed on multiple occasions.[28]

Generally, large and state-owned Chinese companies with significant exposure to global financial markets have tended to retain their operations in Russia. But they have also become reluctant to further deepen cooperation with Russian partners after the launch of their full-scale invasion of Ukraine and instead have focused on sanctions-proofing their existing agreements. Reportedly, the Chinese Ministry of Foreign Affairs in 2022 issued guidelines for energy conglomerates to reevaluate their activities in Russia.[29] Smaller Chinese companies have often fully abstained from cooperating with Russian partners, due to payment processing difficulties or fear of secondary sanctions. And although Russia and China in 2024 launched a regular container shipping service along the NSR,[30] many of the joint infrastructure projects in the Russian Arctic that were planned by the two countries have stalled in recent years: In 2016, for example, the state-owned China Poly Group and the regional government of Arkhangelsk signed a Memorandum of Understanding to develop a deep-sea port in Arkhangelsk.[31] The plan envisioned a US$78 million Chinese investment and a link between the new port and the proposed Belkomur railway. However, both the port and the railway project

27 "China's Great Wall Motor to stay in Russia market 'for time being' while oil conglomerate CNOOC ponders next move," Business & Human Rights Resource Centre, March 30, 2025, https://www.business-humanrights.org/en/latest-news/chinas-great-wall-motor-to-stay-in-russia-market-for-time-being-as-oil-conglomerate-cnooc-ponders-next-move/.

28 Vladimir Afanasiev, "Arctic LNG 2 Delays Commissioning of Second Train as International Sanctions Take Toll," Upstream Online, December 20, 2025, https://www.upstreamonline.com/lng/arctic-lng-2-delays-commissioning-of-second-train-as-international-sanctions-take-toll/2-1-1758624.

29 "Sinopec suspends natural gas marketing venture in Russia," Offshore Technology, March 28, 2025, https://www.offshore-technology.com/news/sinopec-suspends-venture-russia/.

30 Lukas Wahden, "A Summer Insect That Talks of Ice," 66° North, September 19, 2024, https://66north.substack.com/p/a-summer-insect-that-talks-of-ice.

31 Thomas Nilsen, "New Megaport in Arkhangelsk with Chinese Investments," *The Barents Observer*, October 21, 2025, https://www.thebarentsobserver.com/industry-and-energy/new-megaport-in-arkhangelsk-with-chinese-investments/133971.

failed to materialize under unspecified circumstances.[32] A notable exception to this trend, however, is the shipbuilding industry, where Chinese yards have expanded their expertise in constructing Polar Code-compliant ice-going vessels and fulfilled many Russian orders for LNG tankers and other vessels used to service Arctic energy sites.[33]

While military cooperation between Russia and China in the Arctic has expanded over the past decade, it remains limited in scope and beset by mutual distrust. The PLA has participated in, among others, Russia's 2018 and 2022 *Vostok* exercises, with the aim to increase the general interoperability between the two forces.[34] While exercises were only staged in Arctic-adjacent regions of eastern Russia, it can nevertheless be assumed that Sino-Russian joint operations in the region would today be easier to conduct.

In the naval realm, China and Russia have conducted annual joint maritime patrols in the Pacific Ocean since 2021, with increasing proximity to the Arctic Ocean.[35] Notably, in 2023, both countries' naval forces conducted a patrol near Alaska, marking a significant demonstration of their growing ability to jointly operate in Arctic-adjacent waters.[36] In October 2024, Chinese and Russian coast guard vessels carried out their first-ever joint patrol in the northern Pacific Ocean, traversing the Bering Sea and entering the Chukchi Sea, which is part

32 Arild Moe, "China's Polar Silk Road: The Role of the Arctic in China's Belt and Road Initiative," in N. Hong (ed.), *China-Russia Relations in the Arctic* (Springer, 2024), 105–131, https://link.springer.com/chapter/10.1007/978-3-031-63087-3_6.

33 Trym Eiterjord, "Taking Stock of China's Polar Fleet," *The Diplomat*, April 5, 2025, https://thediplomat.com/2025/04/hold-taking-stock-of-chinas-polar-fleet/.

34 Ondrej Ditrich and Alice Ekman, "Rehearsing War: China and Russia's Military Exercises," European Union Institute for Security Studies, July 3, 2024, https://www.iss.europa.eu/publications/briefs/rehearsing-war-china-and-russias-military-exercises/.

35 "China and Russia Conduct 4th Joint Maritime Patrol," *Xinhua*, July 15, 2024, https://english.news.cn/20240715/46fc55a4f2cd4a6f811912ce5feef64f/c.html.

36 Michael R. Gordon and Nancy A. Youssef, "Russia and China Sent Large Naval Patrol Near Alaska," *The Wall Street Journal*, August 6, 2023, https://www.wsj.com/world/china/russia-and-china-sent-large-naval-patrol-near-alaska-127de28b.

of the Arctic Ocean.[37] This operation showcased their readiness for cooperative maritime operations in high-latitude environments. However, these exercises have remained few and far between and their relevance is largely symbolic and often conducted by coast guard vessels involved in fishing patrols or rescue missions. Exercises like *Vostok* or joint Sino-Russian bomber patrols have further been conducted close to Arctic territories, rather than in the Arctic Ocean or the Russian Arctic territories. They should be seen as demonstrations of political solidarity, and not necessarily evidence of a sustained joint military posture within the Arctic region.

The likely reason for this limitation is enduring mistrust: Russia considers the Arctic to be a vital national security frontier. In its Arctic policy and military doctrines, it presents the region as being critical to its national security interest.[38] In comparison to China, Moscow holds vastly superior Arctic capabilities. It operates nuclear-powered icebreakers, Arctic-adapted brigades, advanced radar networks, and the various assets of the Northern Fleet. Moscow has further historically opposed any dilution of its military primacy in the Arctic by external actors—including friendly ones. By comparison, China has a miniscule military footprint in the Arctic. The PLA has no sway over supporting infrastructure in the region. China's five research icebreakers are, by definition, dual-use in nature, and offer limited operational relevance for hard-power projection. China's strategic outlook on the Arctic is also heavily influenced by economic considerations—and its strategic involvement in the NSR remains a function of its historically fickle political relations with Russia, as opposed to a strategic asset that could be taken for granted.

37 Astri Edvardsen, "China's Coast Guard Conducts First Patrol in Arctic with Russia," *High North News*, October 4, 2024, https://www.highnorthnews.com/en/chinas-coast-guard-first-patrol-arctic-russia.

38 The Kremlin, "Ukaz ob utverždenii Kontcepcii vnešnej politiki Rossijskoj Federacii [Order on the confirmation of the Foreign Policy Strategy of the Russian Federation]," March 31, 2023, http://www.kremlin.ru/events/president/news/70811.

While Arctic military cooperation between Russia and China might still accelerate—especially in the space domain, coast guard and coastal security operations[39]—the persistent lack of deep strategic trust between the two countries is likely to continue hampering such projects. Russian strategic thinkers have expressed significant skepticism in regards to China's assertive 2018 'Arctic White Paper'.[40] They have generally welcomed rumors that Beijing may ameliorate the document's assertive tone.[41] In 2020, Russia arrested a leading Arctic researcher on charges of spying for China.[42] Pavel Ivankin, the President of Russia's National Research Center for Transportation and Infrastructure, in March 2025 cautioned against China's icebreaker construction, flagging the country as a potential future rival.[43] And concerns about the security implications of the heavy demographic imbalance between Russia's east and far north and China continue to attract the attention of Russian policy-makers.

Finally, Russia and China have also come to diverge on one of the most important aspects of Arctic international relations—the region's multi-layered governance system. While superficially, the Russian and Chinese governments have supported each other in disputes with Western states over the future of the Arctic Council, their strategic visions for the future direction of the Arctic governance system do not fully align.

China's involvement in the Arctic is curtailed by the fact that it is not an Arctic state. Beijing's official strategy for the region has thus prioritized the diplomatic

39 Heather Williams, et al., "Why Did China and Russia Stage Joint Bomber Exercise Near Alaska?" Center for Strategic and International Studies, July 30, 2025, https://www.csis.org/analysis/why-did-china-and-russia-stage-joint-bomber-exercise-near-alaska.

40 Adam Lajeunesse, et al., "Friction Points in the Sino-Russian Arctic Partnership," National Defense University Press, October 30, 2023, https://ndupress.ndu.edu/Media/News/News-Article-View/Article/3571034/friction-points-in-the-sino-russian-arctic-partnership/.

41 Lukas Wahden, "A Fateful Choice: Arctic Politics," 66° North, April 11, 2025, https://66north.substack.com/p/a-fateful-choice-arctic-politics.

42 Mary Ilyushina, "Russia and China Spying Allegation," *CNN*, June 17, 2020, https://edition.cnn.com/2020/06/17/europe/russia-china-spying-allegation-intl/index.html.

43 "Pavel Ivankin – o namerenii SŠA postroit' sobstvennyj ledokol'nyj flot [Pavel Ivankin on the US Intention to Build Its Own Icebreaker Fleet]," GoArctic, March 18, 2025, https://goarctic.ru/opinions/pavel-ivankin-o-namerenii-ssha-postroit-sobstvennyy-ledokolnyy-flot/.

and economic engagement of Arctic states, and has not significantly changed since 2018.[44] In order to 'earn a place at the Arctic table', Beijing wants to continue conducting scientific research, particularly on climate change and rising sea levels, which it perceives to be a threat to its coastal regions. China also hopes to carry out maritime and commercial activities wherever possible, participate in conserving the region's ecosystems, and to claim a greater stake in multilateral Arctic governance formats. China has consistently expressed a desire to continue cooperating with all Arctic countries and likely perceives its growing reliance on Russia as a strategic disadvantage.

Ideally, China would want to restore strong ties with the European Arctic states, as well as Greenland.[45] In the 2010s, the country pursued cooperation projects with Finland, Sweden, Norway, Greenland, and Canada, including in sensitive areas such as satellite operations and space research, rare earth mining projects, and infrastructure development.[46] The loss of these links, as well as the perception among NATO states that China increasingly acts as a supporting force for Russia's aggressive Arctic policy, is often complained about by Chinese observers. In a militarized Arctic, the interests of China and other outsider states would be sidelined—an insight which has spurred China to advocate for a return to 'peaceful conditions' and 'cooperation' in the region.

Russia, on the other hand, sees itself as the predominant Arctic power. Since 2023 at the latest, Moscow has reserved for itself the right to act unilaterally in the region.[47] Dismayed by the Western Arctic states' suspension of Arctic

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44 State Council of the People's Republic of China, "China's Arctic Policy," January 26, 2018, https://english.www.gov.cn/archive/white_paper/2018/01/26/content_281476026660336.htm.

45 Svein Vigeland Rottem and Gørild Heggelund, "China's Polar Silk Road: The Role of the Arctic in China's Belt and Road Initiative," in N. Hong (ed.), *China's Role in the Arctic: Observing and Being Observed* (Springer, 2024), 101–122, https://link.springer.com/chapter/10.1007/978-3-031-63087-3_5.

46 Patrik Andersson, "The Recent Backlash Against China in the Nordic Arctic: Prospects for Future Chinese Engagement in the Region," Swedish Institute of International Affairs, No. 5 2024, 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.

47 Malte Humpert, "Russia Amends Arctic Policy Prioritizing National Interest and Removing Cooperation Within Arctic Council," *High North News*, February 23, 2023, https://www.

Council cooperation in March 2022, Russia suspended its payments to the Council, threatened to leave the organization, and in 2023 deleted all mentions of multilateral cooperation from its most important Arctic strategy document. Russia has also invested significant diplomatic capital into the exploration of alternative Arctic governance formats. In 2023, Russia announced its intention to establish a joint BRICS+ research station on Svalbard.[48] Throughout 2022 and 2023, Moscow attempted to gradually introduce an Arctic governance element to cooperation among the BRICS+, and especially the organization's Ocean and Polar Science and Technology Working Group.[49] These attempts failed to bear fruit, however, in part because Norway worked hard to preserve the Arctic Council during its 2023-2025 presidency but also because China likely obstructed Russia's attempts to further politicize the Arctic activities of the BRICS+.

Today, Russia and China both want to engage in multilateral cooperation in the Arctic, but the two sides disagree on who to cooperate with, and how. China would like to see the Arctic Council—and with it its observer state prerogatives—restored to its previous functions, and for taboos over its economic and scientific involvement in the western part of the region to fall. Russia, on its part, has entertained the idea to 'globalize' the Arctic on its own terms. Recently, Moscow has tried to involve a growing range of external countries from the Global South—including India, Vietnam, the United Arab Emirates, Türkiye, and even Indonesia—in its Arctic territories, as well as Arctic governance issues.[50] Russia's proposals for alternative Arctic governance structures involving these countries would bifurcate the Arctic into two blocs:

highnorthnews.com/en/russia-amends-arctic-policy-prioritizing-national-interest-and-removing-cooperation-within-arctic.

48 Astri Edvardsen, "Russia Wants to Cooperate With BRICS Countries on Research on Svalbard," *High North News*, April 14, 2023, https://www.highnorthnews.com/en/russia-wants-cooperate-brics-countries-research-svalbard.

49 "The 6th Working Group on Ocean and Polar Science and Technology Convened in Murmansk," Arctic Russia, June 13, 2024, https://arctic-russia.ru/en/news/the-6th-working-group-on-ocean-and-polar-science-and-technology-convened-in-murmansk/.

50 Lukas Wahden, "Reassessing Russia's Arctic Strategy: Beyond the Partnership with China," *Russia Post*, July 22, 2024, https://russiapost.info/politics/arctic_strategy/.

one led by NATO, and one led by Russia and centered on the BRICS+. For China, this scenario would be unattractive. Beijing would be relegated to the role of an Arctic helper to Russia, in a much-diminished regional setting dominated by military confrontation. China's main Arctic interests—to conduct research, extract economic value, make Arctic shipping viable for commercial operators, and gain a seat at intra-regional governance tables—would all fall flat under these circumstances.

As in other aspects of its relations with Russia and the West, China is increasingly attempting to 'sit on the fence' regarding Arctic cooperation. While it supports Russia economically and publicly proclaims solidarity with Russian viewpoints, in practice, it often refrains from endorsing Russia's more assertive initiatives. From Moscow's perspective, this creates a policy dilemma: ideally, Russia would seek to replace lost access to Western governance forums, technologies, and markets by expanding Arctic cooperation with China, as well as with India, the United Arab Emirates, and other non-Western states. Russia envisions this new grouping of Arctic partners as being centered on itself, with Moscow in a clear leadership role. However, China is the only member of Russia's 'new' Arctic partners with the capacity to provide the investments, technologies, and diplomatic clout needed to offset—at least partially—the loss of Russia's Western partners. This gives Beijing leverage to influence the trajectory of Russia's Arctic plans. Meanwhile, the respective outlooks of Russia and China on the Arctic's future are riddled with contradictions. Thus, while Russia currently cannot advance its Arctic ambitions with full backing from China, it is equally unable to do so without.

For Western decision-makers, this situation presents several intriguing opportunities. First, the 'stick' of economic sanctions has demonstrated its effectiveness in slowing or even derailing Sino-Russian Arctic cooperation. A complementary 'carrots' approach—allowing Beijing to resume certain forms of scientific or economic cooperation with Western Arctic states, while continuing to exclude strategically critical sectors—could entice China to distance itself further from Russia's positions. It is therefore worth considering how China might be selectively reintegrated into certain aspects of Arctic

cooperation with the West.

Second, if Russia succeeds in establishing alternative Arctic cooperation platforms with states from the Global South, it would bolster its leverage vis-à-vis both China and the Western Arctic states. However, Western governments cannot simply block the participation of external actors in the region in response. Instead, Western Arctic states should reclaim the initiative in shaping and guiding this process. They must avoid ceding the discourse on 'globalizing' the Arctic to Russia and should continue to incorporate outsider states—such as India—into their own Arctic cooperation frameworks wherever feasible. The decision to hold the first Arctic Circle Forum in India in May 2025 is a promising step in this direction.[51]

Third, the United States should reconsider its plan to unilaterally re-engage Russia in the Arctic, particularly regarding its apparent aim of pulling Moscow away from China's influence.[52] While Russia and China may never form a true Arctic 'alliance,' this does not mean their relationship in the region will cease to be cooperative. In all foreseeable scenarios, China will likely remain a key Arctic partner for Russia, particularly in LNG trade, infrastructure development, and shipbuilding. Moreover, the single most effective factor that is currently preventing Sino-Russian Arctic relations from deepening are Western sanctions against Russia, and specifically the threat of secondary sanctions emanating from the U.S. Any unilateral lifting of these sanctions would not pull Russia away from China—but rather lift most of the barriers that currently stand in the way of China assuming an even greater role in Russia's Arctic economy.

Russia's preference, on the other hand, would be to deepen its cooperation with both the United States and China, play both actors out against one another, and thereby to position itself as the central arbiter of Arctic diplomacy and security.

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51 "Arctic Circle India Forum: The Polar Order – Arctic and Asia," Arctic Circle, May 3, 2025, https://www.arcticcircle.org/forums/arctic-circle-india-forum/.

52 Jianli Yang, "The Myth of a "Reverse Kissinger": Why Aligning With Russia to Counter China Is a Strategic Illusion," *The Diplomat*, February 21, 2025, https://thediplomat.com/2025/02/the-myth-of-a-reverse-kissinger-why-aligning-with-russia-to-counter-china-is-a-strategic-illusion/.

Meanwhile, coherence in Arctic policy between the United States, Canada, and the European Arctic states would likely disintegrate. Canada and the European Arctic states would continue to view Russia's regional ambitions with deep skepticism. The resulting fragmentation—where Russia faces a divided 'Arctic Seven' while maintaining strong ties with China, India and other interested outsiders—would ultimately benefit Moscow, without delivering Washington's hoped-for outcome of weakening Russia's ties with China.

If the U.S. seeks to reintegrate Russia into cooperation with the Western Arctic states while curbing China's influence in the region, a more promising strategy would be to build on the approach initiated by Norway's Arctic Council presidency (2023–2025). This involves maintaining a unified Western stance on Arctic affairs while investing significant diplomatic capital in keeping Russia engaged—even within a partially paralyzed Arctic Council. Such a strategy would discourage Russia from attempting to establish a bifurcated Arctic governance structure, thereby helping to ensure that stewardship of the region remains the exclusive domain of the Arctic states themselves—and all that without relinquishing sanctions as the West's most important instruments of leverage over Russia.

8. Science at the Top of the World: Sino-Russian Cooperation and Contestation in the Arctic

Ole Rasmus Øvretveit, Marco Volpe, and Nataliya Shok

Introduction

In March 2023, Presidents Vladimir Putin and Xi Jinping met in Moscow. They signed a sweeping memorandum aimed at deepening Sino-Russian collaboration across ten strategic areas, including cooperation in the Arctic. This joint statement emphasized the Northern Sea Route, energy projects, and broader Arctic development, signaling a shared ambition to expand their regional footprint.[1] Yet beneath these declarations lie questions about the real scope, structure, and purpose of Sino-Russian engagement in Arctic science.

This chapter examines the evolving nature of Sino-Russian scientific cooperation in the Arctic. It explores how each state articulates its scientific priorities, institutional commitments, and geopolitical narratives in the region. Drawing on official strategies, bilateral mechanisms, and empirical data on research collaboration, we assess whether this partnership is expanding in a meaningful way or remains largely symbolic. In doing so, we highlight key developments—including new science diplomacy platforms, post-Ukraine shifts in foreign policy, and the rising role of BRICS+—to evaluate the current and future trajectory of Arctic science relations between Moscow and Beijing.

Arctic Scientific Cooperation and the Normative Role of the Arctic Council in Arctic Science Diplomacy

The Arctic region has long served as a platform for international scientific collaboration, reflecting both the inherent complexity of the area and

1 Atle Staalesen, "Arctic shipping and energy on Putin's agenda with Xi Jinping," *The Barents Observer*, March 21, 2023, https://www.thebarentsobserver.com/industry-and-energy/arctic-shipping-and-energy-on-putins-agenda-with-xi-jinping/140392?utm_source=chatgpt.com,

the recognition that transboundary scientific cooperation is essential to understanding and managing Arctic environmental change. Today, the Arctic stands at the intersection of environmental urgency, geopolitical interest, and science diplomacy.

Recent analysis sheds light on developments in funding patterns, disciplinary focus, and international partnerships in Arctic science. The United States remains the leading actor in terms of both total spending and the number of research projects initiated, followed by Canada, Russia, Norway, and Sweden. China, notably, has emerged as a significant contributor, rising from eighth to fourth place in Arctic research activity.[2]

Disciplinary trends are dominated by earth and planetary sciences, followed by biology. There is also growing interdisciplinary interest, especially in the social sciences, public health, and Indigenous knowledge systems, reflecting the multifaceted nature of Arctic change. International collaboration remains a hallmark of Arctic science. In 2022, 36 percent of Arctic publications were internationally co-authored, well above the global average of 22 percent, while only 11 percent of Russia's Arctic studies involved foreign partners.[3]

Russia's 2022 invasion of Ukraine disrupted decades of Arctic science diplomacy, ending the region's role as a buffer to geopolitical tensions. Western institutions suspended cooperation, isolating Russia from Arctic research networks and limiting access to its environmental data, undermining both scientific exchange and global climate monitoring. Russia now engages in Arctic science with Western institutions only to a minimal extent.

Arctic science diplomacy encompasses a diverse range of institutions, projects, and actors. In the center of this nexus is the Arctic Council. While the Arctic Council does not conduct research, its six working groups play a key

2 "Arctic Research Trends: External Funding 2016–2022," UArctic, April 2024, https://www.uarctic.org/news/2024/4/new-uarctic-publication-arctic-research-trends-external-funding-2016-2022/.

3 Ibid.

role in coordinating science, informing policy, and promoting co-produced knowledge, Indigenous inclusion, and a balance between development and environmental protection.[4] In 2013, the Arctic Council expanded observer status to six new states, including China—an initiative strongly backed by Norway. As Norwegian Foreign Minister Espen Barth Eide put it, "we want people to join our club. That means they will not start another club,"[5] aiming to align emerging actors, such as China, with existing Arctic norms.[6]

The Arctic is a unique geopolitical and ecological space, encompassing an ocean and bordered by three continents—North America, Europe, and Asia. The eight Arctic states—Canada, Denmark (via Greenland), Finland, Iceland, Norway, Russia, Sweden, and the United States—approach the region with differing national priorities and governance strategies. This diversity, when effectively harnessed, can strengthen the resilience and inclusivity of Arctic science and diplomacy. Despite these differences, there exists a shared recognition among Arctic states that the region is exceptionally complex, both environmentally and geopolitically. Striking an optimal balance between environmental protection and resource extraction is essential, not least for the well-being and future of the Arctic's diverse communities, including both Indigenous and non-Indigenous populations. Knowledge-based sustainability remains a guiding principle for long-term governance and development in the region.

Russia as an Arctic Science Nation

The Arctic is central to Russia's national security, resource strategy, and scientific cooperation. This is reflected in strategic documents like the Arctic Policy Fundamentals, the Arctic Development Strategy to 2035, and the 2021 State

4 Koivurova, T., R. Caddell, and A. Stepien, *The Changing Arctic and the European Union: A Balanced Analysis* (Brill Nijhoff, 2015); Øvretveit, O., "The Future of Arctic Science and Science Diplomacy," November 2023, https://aebergen.w.uib.no/files/2023/11/Nov_Arctic_Science_and_Diplomacy.pdf.

5 Jane George, "Arctic Council: EU out but China likely in, academics say," Nunatsiaq News, April 29, 2013, https://nunatsiaq.com/stories/article/65674arctic_council_eu_out_but_china_likely_in_academics_say/

6 Brugård, Morten, "Norway Says Yes to China in Arctic Council," *The Barents Observer*, January 2013, http://barentsobserver.com/en/arctic/2013/01/norway-says-yes-china-arctic-council-22-01

Program for Arctic socio-economic development, making it the most heavily prioritized macro-region in Russian strategic planning.

A key to navigating future scientific collaboration in the Arctic is a deeper understanding of the future Russia sees for itself as a leading power in the region. Russia controls approximately 45 percent of the Arctic's geographic territory, including the strategically significant Northern Sea Route (NSR), a maritime corridor within Russia's exclusive economic zone that links the North Pacific region with Northern Europe. This growing geostrategic importance is closely tied to a range of pressing national concerns about climate adaptation. According to Russia's official Climate Change Report, the Russian Arctic is experiencing the most rapid temperature increases in the entire northern polar region, leading to accelerated permafrost degradation and shrinking ice coverage—developments that pose both environmental and infrastructural challenges and require stronger adaptability of the country's Arctic ambitions.[7]

The COVID-19 pandemic and the war in Ukraine have pushed Russian policy, including in science, further into the security domain, profoundly affecting Arctic research. Reflecting this shift, the Kremlin revised two key strategy documents—the 2023 Foreign Policy Concept and the 2024 Science and Technology Strategy—emphasizing geopolitical lessons and the constraints imposed by sanctions.

In 2023, Moscow unveiled a new Foreign Policy Concept[8] (FPC), outlining Russia's national interests, strategic goals, challenges, and primary foreign policy directions, which had last been updated in 2016.[9] The new FPC

7 "Третий оценочный доклад об изменениях климата и их последствиях на территории Российской Федерации. Общее резюме," СПб.: Наукоемкие технологии, 2022, 124 с. (in Rus.) / "Third Assessment Report on Climate Change and its Impacts on the Territory of the Russian Federation. General summary," SPb.: Science-intensive technologies, 2022, 124.

8 The Kremlin, "Decree of the President of the Russian Federation dated 31.03.2023 No. 229: On approval of the Concept of Foreign Policy of the Russian Federation," 2023, http://www.kremlin.ru/acts/bank/49090.

9 N. Shok, "Russian Foreign Policy Concept and Global Health: The War as a Turning Point," *Georgetown Journal of* International *Affairs* 24, no. 2 (2023): 252–259, https://dx.doi.org/10.1353/gia.2023.a913653.

emphasizes Arctic policy in commitments to "counteracting the unfriendly states' policy aimed at militarization of the region" and "establishing a mutually beneficial cooperation with the non-Arctic states pursuing a constructive policy toward Russia". These statements signal Russia's strategic interest in maintaining a formal presence on the Arctic Council to preserve its political power in the Arctic while testing new bilateral partnerships in the region. It is significant, however, that the FPC's agenda for the Arctic does not refer to existing international platforms, such as the Arctic Council, for maintaining multilateral cooperation. Additionally, all references to 'the Arctic' throughout this document should be interpreted strictly as referring to the 'Russian Arctic,' a part of Russia's sovereign territory. Therefore, partnerships between Russia and non-Arctic countries should be understood within this framework, with the primary objective of advancing the development of the Russian Arctic.

In February 2024, President Putin adopted a new strategy for science and technological developments. The documents provided a periodization of scientific developments in Russia, identifying the period from 2022 to the present as "a stage of mobilization and development of the scientific and technological sphere under the conditions of sanctions pressure."[10] The Arctic is among nine key priorities highlighted in the document, which also mentions the Antarctic.

Scientific research in the Russian Arctic is crucial for national security, as it encompasses health, environmental protection, and climate change adaptation.[11] It includes testing promising models of hydrogen energy systems and energy storage systems, as well as advanced developments in high-latitude telecommunications, and new models of construction technologies, primarily focusing on monitoring and thermal stabilization of permafrost soils. This is critically important because it aligns with the critical national security priority of "increasing the level of connectivity of the territory of the Russian Federation

10 The Kremlin, "Decree of the President of the Russian Federation dated 28.02.2024 No. 145: On the Strategy of Scientific and Technological Development of the Russian Federation," 2024, http://www.kremlin.ru/acts/bank/50358.

11 Nataliya Shok and Katherine Ginsbach, "Channels for Arctic Diplomacy," *Issues in Science and Technology* 40, no. 3 (Spring 2024): 42–45, https://doi.org/10.58875/HGCJ5356.

by creating intelligent transport, energy and telecommunications systems," amid growing geopolitical tensions.

In March 2025, during the International Arctic Summit held in Murmansk, President Putin, among other directions of Russian Arctic development, highlighted[12] the need to support the establishment of the international Arctic research station "Snezhinka" in Yamal by 2028.[13] This is a year-round, fully energy-autonomous complex based on renewable energy sources and hydrogen energy. The goal is to demonstrate environmentally friendly life support technologies and test robotics, telecommunications, medicine, biotechnology, new materials, and solutions with artificial intelligence in the Arctic. The station will serve as a platform for international scientific cooperation in the Russian Arctic.

A notable strategic recalibration is underway in Russia's global polar engagement, with the Arctic emerging as a cornerstone of its broader foreign policy agenda, particularly through the expanding influence of BRICS+. Since launching a Polar Research Working Group in 2016, Russia has steadily advanced this agenda, culminating in the 2024 BRICS+ meeting in Murmansk under its chairmanship. While internal divergences persist, BRICS+ is catalyzing a reimagining of polar diplomacy by framing the Arctic, Antarctica, and the Himalayas as interconnected pillars of the global climate system. The United Arab Emirates has emerged as a key player in this dialogue, bringing climate leadership developed during COP28 in 2023 and the 2022 "Third Pole" initiative to the table, which targets Himalayan glacier melt and regional water security. Establishing a joint BRICS+ scientific platform could serve as a strategic next move, deepening cooperation and enhancing the bloc's collective scientific and geopolitical leverage. In this evolving landscape, intensifying geopolitical tensions have reinforced the convergence of Arctic and Antarctic considerations in Russian foreign policy, with BRICS+ and bilateral ties with China serving as critical conduits for this shift.

12 "Putin gave new instructions on the development of the Arctic zone," *RIA Novosti*, May 17, 2025, https://ria.ru/20250517/arktika-2017587498.html.

13 Snowflake International Arctic Station, https://arctic-mipt.com/en.

China's Interests and Strategies in Arctic Science as a "Near-Arctic State"

China's Arctic strategy, outlined in its 2018 White Paper, positions the country as a stakeholder in Arctic science, climate monitoring, and resource mapping—the self-definition as a Near-Arctic state animated the international political debate among different Arctic stakeholders. However, the global perspective through which China views the region is built upon less-discussed concepts, such as the win-win strategy and a shared future for mankind. Both concepts help interpret not only China's posture toward the Arctic but also its strategic interests, which range from developing shipping routes and exploiting natural resources to assuming a more influential role in Arctic governance, as well as increasing scientific research and understanding of the Arctic atmosphere and marine ecosystems.

The win-win strategy is at the foundation of China's investment attempts in Greenland a few years ago. The island attracted Chinese state-owned enterprises, particularly in the infrastructure and mining sectors, with a notable focus on rare earth elements. These minerals, of which China already controls around 80 percent of the global market, are essential for the energy transition. The "win-win" concept materializes in the mutual benefits: for China, access to and participation in the extraction site; for Greenland, the potential to improve local employment conditions and diversify its economy, seen as a pathway toward independence from Copenhagen. However, the project was decisively halted by the government that came to power in Nuuk in 2021, which made banning uranium and rare earth extraction a central theme of its electoral campaign.

The common heritage of mankind plays a fundamental role in the improvement of Chinese Arctic science. While the original concept of a community of common destiny, formulated by former Chinese leader Hu Jintao, referred to China's relations with Southeast Asian countries, Xi Jinping has expanded its scope from a regional to a global framework, focusing on the shared future of mankind. This concept is now used as a lens to examine the Arctic.

Following the United Nations Convention on the Law of the Sea (UNCLOS), the High Seas and areas beyond national jurisdiction in the Central Arctic Ocean guarantee equal access to all parties. The growing need to enhance understanding of the Central Arctic Ocean marine ecosystem and effects of climate change also legitimizes China's access to the region to conduct scientific research. It provides an opportunity for China to evolve from a norm-taker to a norm-shaper within Arctic-relevant governance systems.

The Central Arctic Ocean Fisheries Agreement entered into force in 2021. For the first time in recent years, an Arctic-related agreement has expanded beyond the scope of the Arctic Five coastal states, encompassing the European Union, Japan, China, and South Korea. The Agreement highlights the knowledge gap in the marine biosphere, fish stocks, and the potential implications of exploiting natural resources in the ecosystem, as well as for indigenous and local communities. Its uniqueness lies in the precautionary approach, which underlines the concept of "Science first", before massive fisheries activities are conducted. In April 2024, the COPs adopted the Implementation Plan, which, beyond establishing priorities and areas, calls for the coordination of national programs and lists facilities that might be used to conduct joint scientific research in the Central Arctic Ocean Area. The agreement offers a unique opportunity for signatory members to collaborate on engaging scientific research, even within a tenser geopolitical context. On its side, China has its interest in actively participating in the Agreement as it will further reinforce the idea of a reliable partner in the Arctic and, more strategically, better positioning within the region as a rule-shaper.

From a domestic perspective, China's leadership has shown a renewed interest in the polar regions already in the 13th Five-Year Plan (2016-2020). The focus was on enhancing scientific and technological capabilities and having a more active role in international Arctic governance. Scientific and technological investments have enabled China to consistently improve its research output and conduct scientific expeditions in both regions on an almost annual basis.

China's early Arctic expeditions focused on the Bering, Chukchi, and Beaufort Seas, but since 2020 have shifted toward the Gakkel Ridge, where mineral interest has grown. In response, Kullerud and Young proposed a Gakkel Ridge Agreement emphasizing the precautionary principle and special protections for persistent sea ice zones amid climate change.[14]

The area was included by Russia in its submission to extend its Continental Shelf in respect to the Arctic Ocean and on February 6, 2023, the Commission on the Limits of the Continental Shelf (CLCS) issued recommendations and rejected evidence submitted by Russia as insufficient to prove the continental nature of the Gakkel Ridge.

The 2018 Arctic Policy frames China as a Near-Arctic State, a responsible stakeholder in areas such as research and environmental monitoring and draws upon the multilevel interest and long-term plan China has for the region. China's Arctic engagement, anchored in narratives like the "win-win strategy" and the "shared future for mankind", reveals a multidimensional approach that intertwines scientific research, economic opportunities and governance positioning. From bilateral investment ventures with Arctic states to participation in international agreements, such as the Central Arctic Ocean Fisheries Agreement, China's activities reflect both a globalist vision and the development of national interests. As China enhances its scientific capacity, its posture evolves from that of a peripheral actor to a potential leading, norm-shaping participant—one that seeks to balance collaboration with strategic leverage in a rapidly transforming polar landscape.

Sino-Russian Science Cooperation in the Arctic

In the years leading up to 2022, Sino-Russian scientific cooperation in the Arctic gradually developed. Joint research efforts emerged in key areas such as climate change, permafrost dynamics, and Arctic ecology, aiming to leverage each country's scientific strengths while addressing shared environmental

14 Lars Kullerud and Oran R. Young, "Adding a Gakkel Ridge regime to the evolving Arctic Ocean governance complex," GRID-Arendal, October 26, 2020, https://www.grida.no/publications/527.

concerns. This collaboration was institutionalized through bilateral agreements designed to support joint studies and data exchange. China's observer status in the Arctic Council, established in 2013, has facilitated its participation in working groups and assessments, enabling further engagement. Despite these efforts, the scope and depth of Sino-Russian scientific cooperation in the Arctic have remained limited. Broader geopolitical considerations and differing strategic priorities have constrained the partnership.

One bilateral institutional platform is the annual China–Russia Arctic Forum, co-organized since 2012 by the Ocean University of China (OUC) and St. Petersburg State University. Claimed by its organizers to be the only dedicated academic exchange on Arctic affairs between the two nations, the forum embodies their shared aspiration to deepen bilateral engagement. The forum also illustrates China's soft power ambitions in Arctic affairs. OUC's ties with the PLA Navy and the Navy Submarine Academy underscore the dual-use nature of some Arctic research. The 2020 online forum drew over 100 participants and addressed science, education, environmental protection, public health, and the 'Polar Silk Road'—China's Arctic extension of the Belt and Road Initiative.[15] Technological innovation is playing an increasingly important role in Sino-Russian Arctic cooperation, although priorities differ. Russian experts emphasize economic development through technology, whereas Chinese actors view it as a means to increase Arctic involvement and foster global collaboration.

Although the two countries have cooperated on polar expeditions and climate research, their strategic narratives diverge. Russia frames the Arctic as a domain of national sovereignty, while China, as a non-Arctic state, seeks a voice in governance structures. This asymmetry often causes friction. At the 2021 Eastern Economic Forum in Vladivostok, Russian Minister Aleksey Chekunkov raised the question of whether attracting Chinese capital would require ceding ownership of strategic infrastructure, drawing comparisons with

15 F. Jüris, "Sino-Russian Scientific Cooperation in the Arctic: From Deep Sea to Deep Space," in S. Kirchberger, S. Sinjen, and N. Wörmer (eds), *Russia-China Relations. Global Power Shift* (Springer, Cham., 2022), https://doi.org/10.1007/978-3-030-97012-3_10.

China's acquisition of Greece's Piraeus port.[16]

Further complexity arises from official narratives. The omission of multilateral platforms in Russia's 2023 Foreign Policy Concept coincided with a joint Russian-Chinese statement pledging cooperation to preserve the Arctic as a region of peace and stability. While China has no territorial claims, its Polar Silk Road initiative envisions increased leadership in Arctic development. In this context, science remains a vehicle for diplomacy, particularly as both countries invest in the Northern Sea Route (NSR) and Arctic resource extraction. Nonetheless, China's lack of direct access to the Arctic and long-term ambitions may create latent competition.

These tensions surfaced at the March 2025 International Arctic Forum in Murmansk, where Professor Yang Chen of Shanghai International Studies University noted rising regional militarization.[17] He emphasized Russia's continued view that Arctic states enjoy exclusive privileges. At the same time, China advocates for the recognition of its legitimate interests and pushes for a reassessment of the roles of non-Arctic states in Arctic cooperation. Disagreement over the legal status of the Arctic remains a core obstacle.[18]

Post-2022 cooperation has become more visible but remains institutionally debilitated and mostly a work-in-progress. During Russia's chairmanship of the Arctic Council from 2021 to 2023, an agreement under the Northern Forum established the Russian-Asian Arctic Research Consortium in 2022. Including 10 Russian universities and the Ocean University of China, the initiative reflects nascent cooperation.

Available data indicate a decrease in peer-reviewed joint publications between

16 A. Lukin, "The Russia-China entente and its future," *International Politics* 58, no. 3 (June 2020): 363–380.

17 C. Yang, "Remarks at the International Arctic Forum, Murmansk, 2025." See https://forumarctica.ru/news/rossija-zainteresovana-v-razvitii-vzaimovygodnyh-form-mezhdunarodnogo-sotrudnichestva-v-arktike-/?utm_referrer=https%3A%2F%2Fwww.google.com%2F.

18 A. Lukin, n. 16.

Russia and other East Asian partners, although the lack of Russian-language sources complicates a precise assessment. Despite limited data on Russian-Chinese scientific cooperation, the Russian Science Foundation's (RSF) activities offer key insights. Established in 2014 to fund fundamental scientific research, the RSF is a key agency that allocates federal science and technology funding, alongside the Ministry of Science and higher education Mega-grant program.[19] Both initiatives aim to strengthen the global reputation of Russian scientific research by leveraging international scientific cooperation.

The Russian Science Foundation (RSF) and China's National Natural Science Foundation (NSFC) signed a joint agreement in 2020 to fund collaborative projects.[20] Between 2022 and 2024, 170 projects received support, but Arctic topics remained marginal. Only five projects, spanning three years, focused on Arctic-related biology or climate.[21] This may be due to stronger ties in other research fields, a lack of prioritization or mismatched institutional frameworks.

Cooperation is likely to expand in parallel with NSR infrastructure and Arctic research facilities. While Russian-Chinese consortia may co-finance regional development projects, their collaboration is projected to remain primarily economic and technological, rather than scientific. The 2023 Moscow meeting between the countries' foreign policy councils reaffirmed strategic alignment but underscored a critical gap: the lack of deeply integrated scientific systems and a shared understanding of mutually beneficial research priorities, though such efforts are probably already underway.

Russia's long-standing focus on developing its own Arctic technologies also contrasts with China's interest in selling them, creating moderate competition rather than direct conflict. Does Russia have genuine alternatives in selecting a partner for Arctic development?[22] Russia seeks to diversify its partners while

19 Mega-grants, https://megagrant.ru/en/.

20 RSF, "International cooperation," 2024, https://rscf.ru/contests/international-cooperation/.

21 RSF, "Search for Projects," n.d., https://rscf.ru/project/.

22 I. A. Strelnikova, M. N. Chistikov, and A. A. Chistikova, "Will the Arctic Cooperation System Accommodate Global Geopolitical Changes?" *Russia in Global Affairs* 23, no. 2 (2025): 23–37.

maintaining its membership in the Arctic Council. However, the Kremlin currently has no viable alternative to China in the Arctic, despite India being considered a potential reserve. Given the sanctions, China remains vital to Russia's Arctic strategy despite the risks.[23]

In sum, Sino-Russian scientific collaboration in the Arctic has grown modestly, supported by institutional ties and diplomatic intent. Yet it remains constrained by geopolitics, uneven strategic interests, and limited infrastructure. Future cooperation will depend on whether shared interests can overcome structural asymmetries and external pressures.

Conclusion

Sino-Russian scientific collaboration in the Arctic is shaped by both converging strategic interests and diverging normative frameworks. Scientific partnerships are still in their early stages, constrained by the limited scientific infrastructure in the Russian Arctic, which has been rapidly developing since 2022 but remains a work in progress. In short, it's difficult to define the exact nature, goals, or scope of Russian-Chinese Arctic cooperation, but it's clear that we should monitor it closely, as growth may be underway.

Recommendations:

i) Although the present collaboration between the two states appears modest at present, an escalation could have significant effects on the development of Arctic science; therefore, this topic needs to be studied and monitored thoroughly in the years and decades to come.

ii) Greater focus should be given to how the Arctic Council can maintain its normative influence in turbulent times**,** especially in the face of geopolitical realignment and the emergence of parallel scientific and

https://eng.globalaffairs.ru/articles/arctic-strelnikova-chistikov-chistikova/.

23 Andrey Rubtsov, "China in the Arctic: a challenge to Russian interests or a new point of cooperation?" March 5, 2025, https://russiancouncil.ru/blogs/andrei-rubtsov/kitay-v-arktike-vyzov-rossiyskim-interesam-ili-novaya-tochka-sotrudnich/.

governance frameworks involving China and Russia.

iii) The European Union should assume a stronger and more comprehensive role in funding Arctic science, with an emphasis on inclusive, multilateral collaboration to sustain open scientific exchange and promote long-term regional stability.

9. Mineral Resources in the Arctic: Sino-Russian Cooperation and the Disruption of Western Supply Chains

Mia Landauer, Niklas Swanström, and Michael E. Goodsite

Introduction

The Arctic is exceptionally rich in minerals vital for the global clean-energy transition and defense technologies. Greenland alone harbors rare-earth deposits (e.g., Kvanefjeld) that could meet a significant fraction of world demand,[1] while Russia's Arctic (Norilsk, Kola, Chukotka) contains massive nickel, cobalt, platinum, and other base-metal reserves.[2]. Over 90 percent of global rare earth elements (REE) processing currently occurs in China, creating acute supply-chain vulnerabilities (particularly after China's recent limits on exports of heavy REEs).[3] In response, Chinese and Western governments alike have taken steps: the U.S. and Japan signed a Critical Minerals Agreement in 2023, and the EU adopted a Critical Raw Materials Act in 2023 to secure supply chains. Meanwhile, Russia's full-scale invasion of Ukraine (2022) triggered sweeping Western sanctions and has driven Russia to deepen ties with China. In this volatile context, Sino-Russian cooperation in Arctic resource development and infrastructure has accelerated. Russia needs investment and technology to exploit Arctic mines under sanctions, and China is keen to

1 Jacob Gronholt-Pedersen, "Uranium ban repeal in Greenland could revive massive rare earth project, licence holder says," *Reuters*, February 11, 2025, https://www.reuters.com/markets/commodities/uranium-ban-repeal-greenland-could-revive-massive-rare-earth-project-licence-2025-02-11/ (accessed June 6, 2025).

2 Sergey G. Glavatskikh, Vladimir A. Gurylev, and Viktor V. Shchukin, "Geology and Metallogeny of the Arctic Zone of the Russian Federation," *Geology of Ore Deposits* 62, no. 5 (2020): 377–395, https://doi.org/10.1134/S1075701520050023.

3 Frederik G. Christiansen, "Can geopolitics unlock Greenland's critical materials treasure chest?" *IEEE Spectrum*, May 8, 2025, https://spectrum.ieee.org/greenland-rare-earth (accessed June 6, 2025).

diversify its import sources and secure shipping routes (the "Polar Silk Road"). This chapter updates earlier analysis by detailing the latest projects, agreements, and policies (as of May 2025) in Arctic mineral development. It examines the strategic implications for Western supply chains and concludes with policy recommendations for allied nations.

Arctic Mineral Wealth

The Arctic Circle encompasses vast mineral endowments. For example, Greenland's Kvanefjeld deposit is among the world's largest non-Chinese REE resources—estimated to supply up to 15 percent of global rare-earth output.[4] Other Greenlandic prospects (e.g. Amitsoq graphite) are also under development.[5] In Russia, the Norilsk (Talnakh) district produces a significant share of global nickel, cobalt and palladium, and the Kola Peninsula hosts large apatite (phosphate) and nickel deposits.[6] The Arctic also holds potential lithium (e.g. new projects near Murmansk),[7] and uranium deposits (Greenland contains uranium-bearing minerals though mining is controversial). Overall, the High North's geology offers critical inputs (rare earths, battery metals, platinum-group metals or PGMs, uranium) for electronics, batteries, green energy, and military systems. These resources have long attracted global interest, but their exploitation is technologically difficult and capital-intensive, and often faces local resistance due to risks to nature-based livelihoods and cultural heritage. High extraction costs and fragile ecosystems mean that only well-capitalized companies with social license to operate should develop Arctic mines. In short, the Arctic's mineral wealth is both enormous and yet largely untapped, making it a frontier of strategic competition worldwide.

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4 Jacob Gronholt-Pedersen, n. 1.

5 Bloomberg News, "Greenland needs US, EU commitment to buying critical minerals, top banker says," Mining.com, March 24, 2025, https://www.mining.com/web/greenland-needs-us-eu-commitment-to-buying-critical-minerals-top-banker-says/ (accessed June 6, 2025).

6 Jacob Gronholt-Pedersen, Jacob, n. 1; Malte Humpert, Malte, "New report: Busy summer for Arctic shipping on Russia's Northern Sea Route," *High North News*, September 17, 2024, https://www.highnorthnews.com/en/new-report-busy-summer-arctic-shipping-russias-northern-sea-route (accessed June 6, 2025).

7 Lester Grau, "China and Russia expand agreement for Arctic strategic resource development," Foreign Military Studies Office, November 14, 2024, https://fmso.tradoc.army.mil/2024/china-and-russia-expand-agreement-for-arctic-strategic-resource-development (accessed June 6, 2025).

Sino–Russian Cooperation in Arctic Development

China and Russia have moved in tandem to develop Arctic resources and infrastructure. Russia's Arctic provinces host most of its known mineral reserves, but Western investment and technology have been curtailed by the Ukraine war. Concurrently, China has declared itself a "near-Arctic state" and promulgated a 2018 Arctic Policy white paper asserting rights for non-Arctic nations to engage in shipping and resource development.[8] Beijing's stated Arctic goals include scientific research, navigation and resource exploration, and it has integrated the Arctic into its Belt and Road Initiative (BRI) through the concept of a "Polar Silk Road" (infrastructure through Northern Sea Route).[9] In practice, Moscow and Beijing have institutionalized their partnership. In March 2023, for instance, China and Russia created a joint working group on the Northern Sea Route (NSR), and soon after signed memoranda to deepen maritime cooperation.[10] A newly opened Sino-Russian shipping corridor in July 2023 further cements their linkages: by 2024, roughly 98 percent of NSR transit tonnage was accounted for by cargoes between Russian and Chinese ports, with volumes on pace to surpass previous records.[11]

In parallel, Chinese investment is pouring into Russian Arctic mining and energy projects. For example, in August 2024 Russian authorities approved a deal to allow China's MCC Group to become the "main partner" in developing the Kolmozerskoye lithium deposit on the Kola Peninsula.[12] Moscow evidently needs Chinese capital and technology for this and likely other resource projects. Similarly, Russia's giant Arctic LNG 2 project (held up by Western withdrawal after 2022) has seen covert Chinese involvement: Chinese companies transported key equipment and modules to the site in 2024 despite U.S. sanctions.[13] Russia's state nuclear group Rosatom has even handed China-

8 Jian Zhang, "China expands its Arctic presence thanks to Russia," GIS Reports, 2024, https://www.gisreportsonline.com/r/china-arctic-russia/ (accessed June 6, 2025).

9 Ibid

10 Ibid.

11 Ibid.; Malte Humpert, n. 6.

12 Lester Grau, n. 7.

13 Jian Zhang, n. 8.

influenced enterprises administrative roles in NSR infrastructure (e.g. managing ports and icebreakers) under a 2018 mandate. Notably, Russia has transferred some refining and processing to China. In 2024, Norilsk Nickel (Nornickel) announced it would close its own Arctic copper smelter and build a new plant in China via a joint venture.[14] The CEO explicitly cited Western sanctions and market access as reasons for "transferring our environmental problems, … and market access problems … to China" where they could be handled more efficiently.[15] Likewise, Nornickel signed a deal in mid-2024 with Chinese partner China Copper (Chinalco) to form a joint venture for copper smelting in China.[16] In short, these examples illustrate how Sino-Russian cooperation spans the full mineral chain from exploration to transportation and processing. Russia's "no-limits" rhetoric is matched by China's investments: Russian analysts note that since 2022 Moscow has made unprecedented concessions to Beijing in Arctic ventures.[17]

China's broader Arctic strategy extends beyond Russia. It has been active as an observer in the Arctic Council and invested in mining and logistics projects in Canada, Alaska, Greenland, and Scandinavia.[18] Chinese firms seek stakes in non-Russian Arctic deposits (e.g. rare earths in Greenland) and have built icebreakers and research stations. However, Russia remains by far China's closest ally in the region. The two countries' Cold War rivalry has given way to a pragmatic partnership driven by mutual need: Russia needs Chinese capital and markets under sanctions, and China needs

14 Anna Lyrchikova and Andrew Marrow, "Russia's Nornickel moves closer to biggest buyer with plan for copper plant in China," *Reuters*, April 22, 2024, https://www.reuters.com/markets/commodities/russias-nornickel-move-copper-plant-china-ceo-tells-interfax-2024-04-22/ (accessed June 6, 2025).

15 Ibid.; John Luk and Susan Liu, "China Copper in talks with Norilsk Nickel over joint venture to move its copper smelter to China," *Reuters*, July 9, 2024, https://www.reuters.com/business/cop/china-copper-talks-nornickel-move-china-smelter-source-2024-07-09/ (accessed June 6, 2025).

16 John Luk and Susan Liu, n. 15.

17 Junhua Zhang, "Russia clears the path for China in the Arctic," GIS Reports, December 9, 2024, https://www.gisreportsonline.com/r/china-arctic-russia/ (accessed June 6, 2025).

18 Adam Tingstad, Stephanie Pezard, and Yulia Shokh, "China-Russia relations in the Arctic: What are the northern limits of their partnership?" RAND Corporation, November 7, 2024, https://www.rand.org/pubs/perspectives/PEA2823-1.html (accessed June 6, 2025).

secure access to Arctic resources and trade routes.[19] A recent RAND analysis aptly describes this as an economic marriage of convenience centerd on "large, ultimately profitable" energy and mining projects.[20] Despite some underlying mistrust, both states appear committed (for now) to maximizing joint Arctic gains.

Implications for Western Supply Chains

Arctic minerals are critical inputs to Western industries, yet Western nations are increasingly dependent on Asia-dominated supply chains. For example, the United States relies on imports for almost all its rare-earth processing and battery-mineral needs; China currently controls roughly 80–90 percent of various upstream segments (mining, processing, refining) of the EV battery and REE supply chains.[21] This concentration creates strategic vulnerability. In April 2025, China itself showed how leverage can be exercised: it announced new export restrictions on heavy rare earth elements,[22] causing global concern and prompting U.S. efforts to onshore REE processing. Historical precedents underscore this risk. In 2010, for instance, China suspended rare-earth shipments to Japan amid a diplomatic dispute,[23] illustrating how resource dominance can be weaponized. More recently, Russia's aggression in Ukraine has prompted sanctions on Russian metal exports (e.g. nickel, aluminum, platinum) and fear that Moscow could retaliate by withholding commodities. Indeed, in early 2025 the United States and UK banned all imports of Russian-origin metals, and the EU proposed phasing out Russian primary aluminum by 2026.[24]

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19 Ibid.

20 Ibid.

21 The White House, "Fact sheet: President Biden takes action to protect American workers and businesses from China's unfair trade practices," May 14, 2024, https://bidenwhitehouse.archives.gov/briefing-room/statements-releases/2024/05/14/fact-sheet-president-biden-takes-action-to-protect-american-workers-and-businesses-from-chinas-unfair-trade-practices/ (accessed June 6, 2025); Frederik G. Christiansen, n. 3.

22 Ibid.

23 Simon Evenett and Johannes Fritz, "Revisiting the China–Japan Rare Earths Dispute of 2010," CEPR, July 19, 2023, https://cepr.org/voxeu/columns/revisiting-china-japan-rare-earths-dispute-2010 (accessed June 6, 2025).

24 Reuters, "EU to propose ban on Russian aluminum imports in new sanctions package," Mining.com, January 14, 2025, https://www.mining.com/web/eu-to-propose-ban-on-russian-aluminum-

The growing Sino-Russian grip on Arctic supplies could therefore allow these governments to influence or interrupt Western supply chains. Chinese-backed Arctic shipping corridors give Beijing greater control over transit routes; if China and Russia coordinate, they could theoretically restrict NSR traffic or priority-give their own trade. In the raw-material markets, bilateral deals could divert sales away from the West. For instance, if Nornickel's output is primarily refined in China rather than Europe, Western buyers may lose access. China could also export Russian resources at subsidized prices to favor ally markets. The potential for "politicization" of minerals looms large. As a RAND study warns, a Sino-Russian resource alliance could use supply uncertainty as leverage over rivals.[25] Western policymakers are conscious of this: they view "concentrated supply chains" as a security risk and are seeking to pre-empt any single-country choke points.[26] But given current dependencies (e.g., China's near-monopoly on REE refining[27] and Russia's dominance in palladium and titanium production), significant disruption or price shocks remain possible.

At the same time, some observers note limits to Sino-Russian coordination. China continues to diversify globally (developing minerals in Africa and Latin America) and values stable relations with other Arctic states. Russia and China have strategic differences (e.g., China may resist any scenario that undermines Moscow's sovereignty claims). Yet in the near term, Beijing's support is crucial to Russia's Arctic projects, and Moscow currently tolerates Chinese presence in its Arctic domain. Western nations must therefore prepare for scenarios where Sino-Russian cooperation in mining and shipping is the default. The consequences for industries (electronics, EVs, defense, renewable energy) could be severe unless mitigations are enacted.

imports-in-new-sanctions-package (accessed June 6, 2025); Junhua Zhang, n. 17.

25 Adam Tingstad, Stephanie Pezard, and Yulia Shokh, n. 18.

26 Department of Industry, Science and Resources, "Joint statement by Canada and Australia on cooperation on critical minerals," Australian Government, March 5, 2024, https://www.industry.gov.au/publications/joint-statement-canada-and-australia-cooperation-critical-minerals (accessed June 6, 2025).

27 Frederik G. Christiansen, n. 3; The White House, n. 21.

Western Responses and Policy Recommendations

Western governments and industry are responding with a mix of policies to reduce dependency. Several common themes emerge: increasing domestic production, diversifying import sources, stockpiling critical minerals, enhancing recycling, and investing in alternatives. Recent initiatives include:

- **Boost domestic mining and processing.** The United States and EU are accelerating projects to extract and refine critical minerals at home or in allied nations. The U.S. National Defense Strategy and industrial policies have allocated hundreds of millions in grants and loans to build a "mine-to-magnet" rare-earth supply chain within the next decade.[28] Similarly, Australia, Canada, and the Nordic countries have liberalized mining approvals (subject to environmental and Indigenous consultations and consent) (e.g., Greenland Minerals Kvanefjeld REE deposit contingent on regulatory changes[29]). The Biden administration's Inflation Reduction Act and White House Supply Chain initiatives have incentivized domestic production of battery minerals and processing facilities.[30] In Europe, the Critical Raw Materials Act from 2023 sets binding targets (e.g., 10 percent of the EU's needs produced or recycled domestically by 2030) and encourages joint projects with like-minded partners.

- **Diversify international supply.** Recognizing the dangers of overreliance on any single partner, Western nations are deepening critical-minerals partnerships. Notable examples include: the 2023 U.S.–Japan Critical Minerals Agreement and similar pacts with Australia and Canada, all aiming to jointly secure cobalt, lithium, rare earths, and other battery metals. In March 2024 Canada and Australia issued a formal Joint Statement pledging to "ensure markets are diverse, resilient and guided by fair market

28 U.S. Department of Defense, "DOD looks to establish 'mine-to-magnet' supply chain for rare earth materials," October 30, 2023, https://www.defense.gov/News/News-Stories/Article/Article/3700059/dod-looks-to-establish-mine-to-magnet-supply-chain-for-rare-earth-materials/ (accessed June 6, 2025).

29 Jacob Gronholt-Pedersen, n. 3.

30 The White House, n. 21.

practices," explicitly citing the need to avoid "concentrated supply chains."[31] Multilateral dialogues (e.g. the U.S.-EU Trade and Technology Council) now include critical minerals as a focus area, aiming to coordinate standards and stockpiles. Corporate supply chains also seek new sources: Western tech and auto firms are investing in mines and partnerships in Australia, Canada, Brazil, and Africa to lessen Chinese content.

- **Strategic stockpiles and recycling.** Governments are (re)building strategic reserves of key minerals. For example, the U.S. Defense Department has expanded its Defense Stockpile of rare earths (and through the "Battery and Critical Minerals Program" plans) to buffer against future embargoes.[32] The EU and UK are likewise assessing national stockpiles. Recycling initiatives are also accelerating as capturing REEs and lithium from spent electronics and batteries can partly offset import needs. Research programs in the U.S. and EU are improving extraction of rare metals from waste streams. These measures reduce exposure by effectively increasing supply flexibility.

- **Secure Arctic infrastructure.** The Western alliance has become more attentive to Arctic logistics. NATO and Arctic Council members have reaffirmed the strategic importance of keeping shipping lanes open and under non-hostile control. For example, the U.S., Canada, and Scandinavian nations are investing in icebreaking capability, port infrastructure, and domain awareness (satellites, sensors) in the Arctic. The goal is to ensure that routes like the Northern Sea Route and Northwest Passage remain subject to international law and are not unilaterally blocked. Western navies have increased Arctic operations to signal resolve. These steps aim to deter potential Sino-Russian attempts to monopolize Arctic transit.

- **Innovation and substitution.** Long-term resilience also involves reducing absolute demand for any single metal. Research in materials science is

31 Department of Industry, Science and Resources, n. 26.

32 U.S. Department of Defense, n. 28.

accelerating to find substitutes for high-risk inputs (e.g. researching non-REE permanent magnets, or iron- or manganese-based battery chemistries). The U.S. and EU fund development of alternative batteries that rely on more abundant materials. Similarly, improving the energy efficiency and circularity of tech products (using less metal per device, and designing for easy recycling) can ease pressure. Investment tax credits and regulations (e.g., procurement preferences for products free of "conflict minerals") are being used to drive such innovation.

Together, these policies reflect a whole-of-government approach to critical mineral security. The emphasis is on cooperation among allies, and on reducing the "gaps" that China and Russia currently exploit. However, such strategies take time to bear fruit. Given the rapid pace of Sino-Russian cooperation in the Arctic, Western nations must persistently implement and update these measures to keep pace.

Conclusion

The Arctic's vast mineral riches—long a geopolitical prize—are now being actively contested through a Sino-Russian strategic partnership. Even though, there does not seem to be a sizeable increase in shipping minerals in the Arctic based on analyses in 2023[33] newer analyses are needed given changes in geopolitical leadership and policy. China's rapid expansion into Arctic shipping and mining (the "Polar Silk Road") complements Russia's need for finance and markets. Together, they are forging supply chains from Arctic mines to Asian factories that largely exclude the West. The implications for global technology supply chains are profound: if Russia and China continue to integrate their Arctic minerals initiatives, they could disproportionately influence prices and availability of critical inputs like rare earths, nickel, and lithium. Recent events (U.S. tariffs on Chinese minerals, EU bans on Russian metals, Chinese REE export curbs) demonstrate that resource policies are being used as economic leverage. Western governments have begun to counter these moves with

33 Michael Goodsite, "The Future of Shipping Minerals from the Arctic," in *Towards a Sustainable Arctic*, May 2023, 231–244, https://doi.org/10.1142/9781800613225_0011.

domestic industrial programs, trade tariffs, alliances, and stockpiling, but the challenges are daunting. In the short term, China and Russia appear to have the upper hand in Arctic development. Without sustained Western action, future crises could see allies unable to procure enough secure minerals for defense or clean-energy needs. This chapter has outlined the latest developments up to mid-2025 and proposed concrete policy responses. The window for maintaining competitive access to Arctic critical minerals is narrowing; Western resilience will depend on decisive, coordinated policy across technology, trade, and foreign affairs.

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10. Concluding Remarks

Filip Borges Månsson and Niklas Swanström

Sino-Russian cooperation in the Arctic stands at the confluence of geopolitics and environmental urgency. As the chapters in this volume have shown, the evolving partnership between Moscow and Beijing in the Arctic is reshaping strategic calculations and raising profound questions for the arctic governance, sustainability and security. The Arctic has historically been considered a region of relative collaboration and stability, but with time, global tensions have been and are continuously straining that legacy. Continuously analyzing the dynamics of Sino-Russian Arctic engagement is therefore crucial—not only to anticipate geopolitical shifts, but also to safeguard a regional climate that is warming 3-4 times faster than the global average.[1]

The Sino-Russian partnership in the Arctic, as examined through this volume, is a microcosm of the broader challenges facing global governance today. It illustrates how great power cooperation and rivalry are unfolding in new geographic theaters and how local developments can have worldwide repercussions. It is clear that the Arctic´s future will be determined by a complex interplay of competition and cooperation. On one hand, rising global tensions—the return of power politics, war in Europe, intensified U.S.-China Rivalry—cast a long shadow over the Arctic. These strains risk unravelling the cooperative fabric that Arctic nations painstakingly wove over the past 30 years. If confrontation and zero-sum logic continues to dominate, the risk is that the Arctic could become another arena for military standoffs and divisive blocks, to the detriment of all. On the other hand, one could argue the geopolitical and environmental realities of the Arctic makes collaboration more compelling, in ways that perhaps are more fundamental than in other

1 O. Le Poidevin, "Arctic warming seen at three times global average in years ahead, UN weather agency says," *Reuters*, May 28, 2025, https://www.reuters.com/sustainability/cop/arctic-warming-seen-three-times-global-average-years-ahead-un-weather-agency-2025-05-28/ (accessed June 13, 2025).

regions. After all, climate change does not answer to any nation's flag, that said this is an alternative that is dependent on how Russia continues its illegal invasion of Ukraine and it is clear that no dialogue should be initiated with Russia as long as the invasion continues. The shared interest in preventing an environmental catastrophe and ensuring safe navigation could yet inspire unexpected alliances or at least pragmatic truces or solutions. Even Russia and the Western Arctic states, as well as adversaries that may be elsewhere, have a mutual stake in basics like meteorological data exchange or search-and-rescue coordination. China's self-interest in a stable Arctic also provides a potential moderating influence, insofar as Beijing gains nothing from Arctic conflict that would shut it out.

For policymakers, the charge is to find a sober balance: to stand firm on core principles such as sovereignty, territorial integrity, and rule of law, while remaining open to practical compromise and engagement where possible, realizing that the Russian invasion of Ukraine is a deterrent to any dialogue. The contributors to this book have shown that China-Russia Arctic cooperation is neither an unstoppable juggernaut nor a negligible sideshow. It is a nuanced phenomenon with both limits and possibilities. It has yet (so far) created a unified anti-western front in the Arctic, but it is clearly altering economic and diplomatic patterns in ways that merit careful attention and observation. An important takeaway from this is that the Arctic region need not inevitably be a victim of rising global tensions; with wise policy, it can remain a zone where strategic stability is maintained, and collective interests are pursued despite broader rivalries.

With this in mind, by bringing together these thematic insights, several key takeaways emerge regarding Sino-Russian cooperation in the Arctic. And while not prescriptive, these points suggest possible pathways for policymakers to navigate the complex landscape we face today.

First, we need to promote an inclusive and pragmatic dialogue on Arctic governance, even if this should not open for any direct contact with Russia on any question except peace in Ukraine and a Russian withdrawal from

Ukrainian territory. Maintaining open channels for Arctic dialogue is however vital. Rather than allowing a permanent breakdown of institutions, stakeholders could seek practical cooperation in non-strategic areas—for example, environmental protection, scientific research, and indigenous community well-being—where interests overlap, not least with China and other near Arctic nations. By preserving threads of engagement (however modest it may be), the international community can prevent the emergence of rival governance structures and uphold the principles that the Arctic is a shared region requiring collective management. Inclusive forums, whether through reinvigorating the Arctic Council or ad-hoc working groups, will reduce the incentive for Russia and China to form exclusive arrangements. Isolating one or both of these stakeholders entirely is neither realistic nor desirable, as it may push them closer together and undermine cooperative norms.[2]

Second, we need to enhance communication, transparency, and deconfliction when it comes to Arctic Security, while ensuring that this is a pressure point on Russia until its war in Europe is resolved. The changing security dynamics call for confidence-building measures to avoid incidents. All Arctic stakeholders—including military actors from Russia, NATO countries, and even observer states like China—have a shared interest in preventing accidents or escalation in the Arctic. Establishing or augmenting military-to-military communication lines between coast guards of Arctic commanders, for example, and agreeing on basic transparency protocols, can go a long way. Joint or observer-inclusive search-and-rescue exercises, notifications of major deployments or missile tests, and collaborative efforts on domain awareness are tools that could be employed with all states excluding Russia. These steps can be done incrementally and reciprocally. Crucially, as the Arctic lacks a robust security architecture, these deconfliction mechanisms fill a gap as they help ensure that increased military presence (such as Russia's Arctic brigades or NATO patrols) and emerging

2 P. Andersson, "Sino-Russian cooperation in the Arctic: Implications for Nordic countries and recommended policy responses," NKK/SCEEUS Report, No. 5, October 22, 2024, https://www.ui.se/globalassets/ui.se-eng/publications/other-publications/sino-russian-cooperation-in-the-arctic_implications-for-nordic-countries-and-recommended-policy-responses.pdf.

Sino-Russian security cooperation do not lead to miscalculation. Preventive diplomacy, even at the technical level, will be increasingly important as the Arctic becomes more accessible and contested. This said, increased tension in the Arctic could force Russia to refocus some of its military resources from Ukraine to the Arctic to the benefit of the defense of Ukraine.

Third, we must recognize the global interconnections and engage Indo-Pacific and Global South partners. Arctic affairs are no longer isolated from global geopolitics or from other regions. Policymakers should leverage the Arctic's linkages with Asia and the developing world as part of a strategy to keep the region stable. This means working closely with interested non-Arctic states on areas of mutual benefit. For example, partners such as Japan, South Korea, and India can be invited into joint investments related to Arctic infrastructure or climate research initiatives, as long as Russia does not benefit from increased engagement. Similarly, outreach to Global South countries through forums like the UN or IMO (International Maritime organization) can build support for Arctic environmental standards and freedom of navigation principles. By engaging a broad coalition, the Western Arctic states can prevent Russia and China from painting Arctic governance as a closed club or from creating alternative coalitions that exclude others. The underlying idea is to embed the Arctic in a global network of cooperation, aligning it with the Indo-Pacific in areas like satellite networks, shipping standards, and sustainable development. Such engagement undercuts any narrative of East-West exclusivity and emphasizes that a peaceful, well-governed Arctic is a global commons interest.

And lastly, as loosely reiterated before, we must leverage economic and scientific cooperation as strategic tools. Economic ties and scientific collaborations can be used to positively shape strategic outcomes in the Arctic. Instead of viewing all Sino-Russian economic activities as threats, Western policymakers might consider areas where *selective engagement* or incentive structures could influence behaviors. For instance, scientific cooperation with China on climate monitoring, marine biology, or pollution control could be cautiously reopened to rebuild trust and keep major stakeholders such

as China invested in international solutions.[3] Such cooperation has been severely hampered by the current divide, yet it is critical for the world and also serves as a diplomatic bridge. On the economic front, continuing to reinforce strict sanctions on military-use and high-tech sectors is necessary, but there may be merit in allowing or even encouraging collaboration in cleaner energy or climate resilient infrastructure that benefits the Arctic population at large. The goal would be to *incentivize responsible behavior*: if China sees tangible benefits to working with a range of partners and not only Russia on areas such as sustainable development, it might be less inclined to double down on an exclusive alignment. Likewise, China can be encouraged to adhere to high investment standards through collaborative projects with western firms or multilateral development banks in the Arctic. Importantly, western countries should also invest in their own Arctic capabilities—from renewable energy in northern communities to icebreaker fleets and research—to reduce strategic dependencies and demonstrate commitment to the region. It may be audacious or wishful thinking, but by strengthening economic and scientific engagement on their terms, Arctic democracies can both compete and cooperate with Russia and China, if the invasion of Ukraine could be resolved, shaping the region's future in a way that discourages aggressive posturing and deepens interdependence in positive realms.

In reflecting on the way forward, one cannot ignore the backdrop of uncertainty. The coming years will likely see a continued strain in Russia-West relations and cautious calibration in China's Arctic involvement, especially as long as the Russia invasion of Ukraine persists and U.S.-China competition endures. This uncertainty, however, makes it all more important to think ahead. The final insight from our exploration of this "new frontier" is a hopeful but realistic one: the Arctic's destiny is not predetermined. It will be shaped by decisions made today—by whether leaders chose dialogue over silence, cooperation over unilateralism, and long-term common benefit over short-term gains. In an era of mistrust, small steps—such as a scientific mission resumed, a hotline established, an inclusive meeting convened—can

3 Ibid.

gradually rebuild the foundation for peace. The Arctic has in this book, and in many other instances been termed the world's "new frontier", and indeed it is a frontier of both opportunity and caution. Sino-Russian cooperation will continue to be a defining element of that frontier. The stakes are immense both geopolitically and environmentally. Thus, managing it smartly—neither naively embracing nor reflexively vilifying—will be key to ensuring this region remains, as much as possible, a source of international collaboration in a divided world.