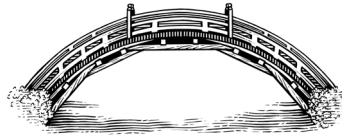


ROUNDTABLE

Asian States' Arctic Approaches:
Opportunities for Engagement



Angela Wang

Jeffrey Reeves

Sakiko Hataya

Yitong Chen

Hema Nadarajah

with prefatory notes by

Yoko Kamikawa

and

Hide Sakaguchi

PREFATORY NOTES TO THE ROUNDTABLE

Arctic Collaboration

By the late 2030s, the Arctic may be largely ice-free in the summers. Ongoing environmental changes in the Arctic, such as those resulting from climate change, both pose a significant threat to the ecosystems and livelihoods of the Indigenous peoples there and serve as a warning about the precariousness of the global climate system. Unfortunately, however, even as these changes are already underway, we still need more data about many aspects of the Arctic. For example, the International Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean, ratified in 2021, regulated commercial fishing in the region due to inadequate information about the fish species available.

Thus, we need to collaborate with various stakeholders to ensure a sustainable Arctic. First, it is vital to deepen discussions and knowledge exchanges about the Arctic between nations through multilateral and serial events, including the Arctic Circle Forums, the meetings of the International Symposium on Arctic Research, the Arctic Frontiers conferences, and the meetings of the Arctic Encounter Symposium. Second, the efforts of Track 1.5 diplomacy—such as the Arctic Cooperation Seminar hosted by the Sasakawa Peace Foundation and the Asia Pacific Foundation of Canada that formed the basis for this roundtable—are also important. We need academics and think tank experts to act as knowledge brokers to facilitate information sharing between governments and the public and to promote evidence-based research about the Arctic in interdisciplinary fields. Finally, I would like to encourage more Arctic youth forums. Young people are future leaders and should take a proactive role in shaping global environmental issues.

The Arctic region must embody international cooperation and be the “ocean of collaboration.” Data sharing between the Arctic and non-Arctic nations is especially critical to facilitate scientific understanding and peace in the region. As Arctic affairs are shared issues for all humankind, non-Arctic states in Asia and elsewhere should be included in these critical dialogues. This inclusivity sends a powerful message under the theme of “knowledge for a sustainable Arctic” that can strengthen a functional and effective international cooperative system for the future.

Yoko Kamikawa

Member, House of Representatives of Japan

Chief Secretary, Parliamentary League of Arctic Frontier Study (Japan)

Asian States and the Arctic Ocean

According to solar physics data, the earth receives 7,400 quadrillion kilojoules (kJ) of energy from the sun each day. From this energy hitting the earth, it is estimated that roughly 80 trillion kJ is available to humans through the food chain from plants and animals. The amount of energy from food that each individual human needs each day is approximately 10 thousand kJ. Thus, solar energy can feed at most 8 billion people through the food chain from plants and animals.

According to *World Population Prospects 2022*, the global population reached 8 billion in November 2022. The populations of China and India are each more than 1.4 billion, and other Asian countries such as Indonesia, Pakistan, Bangladesh, Japan, the Philippines, Vietnam, and Thailand are also among the top twenty largest countries by population. The sum of the populations in these nine countries alone is 3.9 billion.

Thus, we should be aware that world population has already reached earth's capacity, and 50% of these people are concentrated in Asia. And yet, world population is projected to continue growing at a high rate for several decades, so we must intensify food production. However, doing so requires huge amounts of energy—in fact, 4% of global electric energy currently consumed is to produce nitrogen fertilizer in support of food production. Consequently, population, food, resources, energy, and the environment are all interrelated global problems, and we are now at a critical point.

However, there exists a buffer to alleviate some of the tension of these problems—the oceans. The oceans can work to produce food and energy. At the same time, science has proven that the oceans can support carbon and nitrogen fixation, enabling these elements to support plant life and be used in fertilizers. The Arctic Ocean, especially, has great potential for those purposes. The Arctic Ocean is considered a large polar sea surrounded by the following five coastal states: Canada, Denmark (via Greenland), Norway (via Svalbard), Russia, and the United States (via Alaska). In terms of economic exclusive zones (EEZs), the largest area of Arctic Ocean by country belongs to Canada, 5.3 million square kilometers, while the second-largest belongs to Russia at 4.3 million square kilometers.

Therefore, to address the global problems mentioned above, collaboration and cooperation between Asian states, which are largely driving global population growth, and the Arctic states, especially Canada with the largest share of the Arctic Ocean within its EEZ, are essential. International cooperation must be carried out through the development and conservation of the Arctic Ocean. In this context, projects to introduce the

ocean and its development potential to Asian states to attract investment, scientific research, and technological development are of the highest importance. This ocean is truly the last frontier and may be key to our last stand to save the earth.

Hide Sakaguchi

President

Ocean Policy Research Institute of the Sasakawa Peace Foundation

Introduction: The Rise of Asian State Actors in the Arctic

Angela Wang

Traditionally an isolated and low-tension region, the Arctic is known for its extraordinary beauty and pristine wilderness. The region is recognized as one of the last resource-rich frontiers—it holds 22% of the world's oil and natural gas resources, is home to more than 21,000 known species, and contains two commercially viable shipping routes that could potentially reshape the future of international trade.¹ As the sea ice over the central Arctic Ocean has long kept the region inaccessible, Arctic affairs have customarily been prioritized on the policy agendas of only the eight Arctic states—Canada, Denmark (via Greenland), Finland, Iceland, Norway, Russia, Sweden, and the United States. However, this situation has begun to change in recent decades as the region becomes more accessible due to climate change, ecological degradation, and a consequent rise in economic and geostrategic opportunities. The Arctic is now a new frontier that has piqued the interest of international actors, especially ones from the Asia-Pacific region.

In 2013, at the Kiruna Ministerial Meeting in Sweden, the Arctic Council granted China, Japan, India, South Korea, and Singapore the status of observer states.² The Arctic Council is a critical governmental forum for Arctic cooperation with decisions made by the eight Arctic nations and the permanent participants.³ Although observer members are limited to observation of the work of the council and involvement in specific working groups, prior to the Kiruna decision the council's observer states only comprised European countries. The admission of these Asian observers was

ANGELA WANG is a Post-Graduate Research Scholar at the Asia Pacific Foundation of Canada (Canada). Prior to joining Asia Pacific Foundation of Canada, she conducted policy research for the United Nations Office in Nairobi, the Regional Municipality of York, and Immigration, Refugees, and Citizenship Canada. She can be reached at <angela.wang@asiapacific.ca>.

¹ World Wildlife Fund, "Oil and Gas" [~ https://www.arcticwwf.org/threats/oil-and-gas](https://www.arcticwwf.org/threats/oil-and-gas); and Arctic Council, "Safeguarding Arctic Biodiversity" [~ https://www.arctic-council.org/explore/topics/biodiversity/#:-:text=In%20all%2C%20the%20Arctic%20is,services%20and%20values%20to%20people.](https://www.arctic-council.org/explore/topics/biodiversity/#:-:text=In%20all%2C%20the%20Arctic%20is,services%20and%20values%20to%20people.)

² Italy was also granted observer status at this meeting. Arctic Council, "Arctic Council Observers" [~ https://arcticcouncil.org/about/observers.](https://arcticcouncil.org/about/observers)

³ The permanent participants are currently six organizations representing the Indigenous peoples of the Arctic: the Aleut International Association, Arctic Athabaskan Council, Gwich'in International Council, Inuit Circumpolar Council, Russian Association of Indigenous Peoples of the North, and the Saami Council.

a pivotal moment, as it signifies Asian states' increased interest in the Arctic and that the circumpolar Arctic is no longer isolated, as globalization and international cooperation in the region have become ever more evident.

Since their admission, China, Japan, South Korea, and Singapore have emerged in particular from being peripheral to active members in Arctic affairs. Off to a flying start, these four non-Arctic Asian states have deployed scientific diplomacy and engaged in climate, environmental, shipping, energy, and fishing research to pave their way into Arctic affairs and find their niche. Understanding the Arctic's increased accessibility and the world's rising energy demand, China, Japan, and South Korea have also published their own Arctic policy frameworks, expanding their Arctic ambitions in economic domains. China has pushed to construct a "Polar Silk Road" in the Arctic Ocean to increase global trade and stimulate the nation's economic growth, while Japan and South Korea were heavily invested in different Russian liquefied natural gas (LNG) projects in the Arctic prior to Russia's invasion of Ukraine in 2022.

Perceptions of the Arctic States

Despite Asian newcomers' keen regional engagement and interest, the Arctic states have always been cautious and vigilant for any signs of non-Arctic presence. Especially as the eight Arctic states already have unresolved disputes over territory, maritime delimitation, and exclusive economic zones, the presence of new actors in the circumpolar region could add a layer of complexity to the region's security, development, and governance. As a result, Asian states' engagement in the high north has been under scrutiny ever since their application to become observers in the Arctic Council. For example, during the application process, the Arctic Council set up the recognition of "sovereignty, sovereign rights and jurisdiction" of the Arctic states as a new application criterion.⁴ Russia and Canada also contended that the Arctic region should not be "internationalized" and were hesitant to grant China, Japan, South Korea, Singapore, and India observer status in 2013.⁵ China's self-proclaimed "near Arctic state" identity remains a further contested topic that provokes mixed feelings from different Arctic nations.

⁴ Arctic Council, "Senior Arctic Officials (SAO) Report to Ministers, Nuuk, Greenland," May 2011 ~ <https://oaarchive.arctic-council.org/handle/11374/1535>.

⁵ Natalia Viakhireva, "The Russian and Canadian Approach to Extra-Regional Actors in the Arctic," Russian International Affairs Council, July 11, 2019 ~ <https://russiancouncil.ru/en/analytics-and-comments/analytics/the-russian-and-canadian-approach-to-extra-regional-actors-in-the-arctic>.

Despite the frenzy over admission of the Asian observers to the Arctic Council, Canada and the United States have rarely interacted with these newcomers since their admission. Unlike the European Arctic states—Denmark, Finland, Iceland, Norway, Russia, and Sweden—that have cultivated robust economic and scientific ties with the Asian Arctic newcomers, Canada's and the United States' diplomatic engagement on northern affairs has been restricted to other Arctic states. The two North American states also tend to hold a binary view of newcomers' Arctic engagement, as most Canadian- and U.S.-published literature has simplified their foreign presence in the high north as that of either a "threat" or an "ally" to Arctic governance. To understand this paranoia, the following section addresses some of the major threats and opportunities felt by the Arctic nations in response to the rise of Asia in the polar region.

Asia in the Arctic: Policy Concerns and Opportunities

First, there are doubts among the Arctic states and communities as to whether the Arctic should be a new site of subsistence or resource development. Methods to ensure sustainable resource development in the high north by the Asian states and others is one of the Arctic nations' top concerns. Asian newcomers' interests are fueled by capitalizing on the Arctic's energy and shipping potential. The area north of the Arctic Circle holds a lucrative amount of the world's undiscovered gas and oil resources, while the greater accessibility of Russia's Northern Sea Route and Canada's Northwest Passage due to melting sea ice could drastically reduce the time, costs, and risks to international shipping. Yet Asian states' economic interests in the Arctic often conflict with the interests of member states. Canada, for example, views the Arctic as a highly fragile ecosystem in need of protection and thus perceives increased resource exploitation as a threat that could aggravate ecological problems, including ocean acidification, biodiversity loss, and the thawing of permafrost. As a result, many Arctic nations are struggling to balance the economic and scientific benefits brought by the Asian newcomers while adhering to their national environmental and climate goals.

Second, and relatedly, there are debates on whether the Arctic should be a new site of exploration or one of cultural preservation. New logistical and economic opportunities brought by the Asian newcomers could alter the way Arctic Indigenous cultural heritage is both appreciated and exploited. Currently, approximately four million Indigenous people collectively reside

in the Arctic region among the eight Arctic states.⁶ Many Arctic peoples have endured systemic marginalization for centuries and still remain on a path to reconciling with their respective Arctic states. Asian newcomers' Arctic engagement may thus be a double-edged sword that facilitates infrastructure and economic development at the expense of cultural heritage and natural preservation in the region. For example, in 2021, Greenland halted the Chinese-backed Kvanefjeld mining project, as radioactive waste produced from the massive extraction of uranium could jeopardize the local inhabitants' access to clean water and traditional activities such as farming, hunting, and fishing.⁷ In addition, considering that some Arctic inhabitants, such as the Inuit, have been granted territorial rights over Arctic waters, ice, and resources, Asian newcomers could further increase the complexity of coordinating with Arctic peoples on northern affairs.

Third, broader Arctic engagement raises concerns over whether the Arctic should be an arena of international cooperation or conflict. The perception of Arctic sovereignty has embodied this duality throughout history. On the one hand, the Arctic is often seen as an area of regional and international collaboration, as most intergovernmental organizations like the Arctic Council, the International Maritime Organization, and the United Nations rely on the spirit of cooperation between the different states. On the other hand, during the Cold War, the Arctic was a site of great-power competition. Unresolved territorial disputes between states, maritime disputes such as the Northwest Passage dispute between the United States and Canada, and a rise in Russian and U.S. militarization in the high north are all issues that highlight the Arctic's potential to be a conflict zone. Currently, most intergovernmental organizations do not interfere on Arctic security matters. As a result, Arctic nations are independently evaluating the security implications that the Asian newcomers could have on their respective areas of sovereignty. Especially considering Russia's war on Ukraine, the tightening Sino-Russian partnership, and Japan's recent military buildup to strengthen its posture in the Pacific, some Arctic states may see it in their best interest to avoid the spillover effect of international conflicts into the low-tension Arctic region.

The last concern arises from the question of Asian newcomers' participation or involvement in the governance in the circumpolar

⁶ Indigenous peoples include the Inuit, Saami, and Nenets, among other groups. Arctic Council, "Permanent Participants" ~ <https://www.arctic-council.org/about/permanent-participants>.

⁷ Irene Henriques and Steffen Böhm, "The Perils of Ecologically Unequal Exchange: Contesting Rare-Earth Mining in Greenland," *Journal of Cleaner Production* 349 (2022).

region—should the Arctic be a land exclusive or inclusive of greater international governance? As mentioned previously, complying with the “sovereignty, sovereign rights, and jurisdiction” requirements of different Arctic states was necessary to be permitted as observers at the Arctic Council, and observers’ primary responsibility is limited to observing the council’s work.⁸ However, since their admission, many Asian observer states and researchers have made immense contributions to the Arctic Council’s working groups and task forces. Moreover, many Arctic problems, including climate change, ecological degradation, conflict prevention, and Arctic Indigenous cultural preservation, require global action and solutions. Thus, whether and which areas of Arctic governance require regional solutions from the eight Arctic states or could benefit from global engagement remain questions of debate.

Addressing the Policy Gap

Since the admission of these Asian states as observers to the Arctic Council in 2013, and thus to some degree to Arctic affairs, numerous pieces have been published in Western literature that address the above concerns and narratives of the eight Arctic nations. Yet, there has only been a limited number of publications that depict Asian states’ polar narratives and examine whether the Arctic states’ concerns are warranted. Considering that global conflict and violence are on the rise, addressing the validity of these concerns to avoid inadvertent crisis escalation and strengthen multilateral cooperation in the high north is essential, especially as fractures in the region are already taking place. After Russia—the Arctic Council’s current chair—invaded Ukraine in February 2022, deviating from the foundational ideas of cooperation and rule-based international relations, the other seven Arctic states have since “paused” their participation in the council in response, putting on hold much of its work. In August 2022 the NATO secretary general visited Canada’s north (Cambridge Bay) due to the region’s strategic importance for Euro-Atlantic security, amid rising Russia-Ukraine tensions.⁹ It is thus more critical than ever to restore faith in a rule-based international order and to ensure that the Arctic remains a low-tension region, shielded from the potential spillover of international

⁸ Arctic Council, “Senior Arctic Officials (SAO) Report to Ministers, Nuuk, Greenland.”

⁹ NATO, “NATO Is Stepping Up in the High North to Keep Our People Safe,” August 25, 2022 ~ https://www.nato.int/cps/fr/natohq/opinions_206894.htm?selectedLocale=en#:~:text=This%20week%20I%20am%20visiting,North%20America%20and%20for%20NATO.

conflict elsewhere. Identifying the specific fields, engagement strategies, and Asian partners that could collaborate with the eight Arctic nations would be another policy gap that is worth examining.


Acknowledging these policy gaps surrounding Arctic affairs, and with the generous support of Canada's Department of National Defence, the Asia Pacific Foundation of Canada and the Sasakawa Peace Foundation co-hosted a two-day conference, the Arctic Cooperation Seminar, in June 2022 in Tokyo. The first day was a closed-door event hosted at the Canadian embassy that focused on both understanding Japan's Arctic narratives and development aims and pinpointing potential avenues for Canada and Japan to collaborate in the high north. The second day of the conference was a hybrid seminar adapted to accommodate international speakers who could not travel to Tokyo due to the Covid-19 restrictions. The seminar focused on illustrating the polar narratives of the Asian states on the Arctic, with specialists from Canada, Japan, China, South Korea, Singapore, and India sharing views on Arctic interest and cooperation.

This *Asia Policy* roundtable shares essays from some of the participants engaged in the Arctic Cooperation Seminar in Tokyo with Arctic- and policy-watching networks around the world. The roundtable starts with an essay from the event organizer, Jeffery Reeves, vice president of research and strategy at the Asia Pacific Foundation of Canada, that examines Canada's Arctic posture. Through analyzing the key stakeholders, past events, and underlying rationale that has shaped Canada's Arctic policy, the essay identifies critical roadblocks for Canada's enhanced leadership in Arctic affairs. The essay further explains the necessity for Ottawa to engage with critical Asian states in the Arctic to likewise strengthen Canada's presence in the Indo-Pacific's broader security architecture.

Japan, being a maritime state and the closest Asian country to the Arctic Ocean, has great potential to act as an entry point for Canada and the United States to foster closer Arctic ties with Asia-Pacific states. Sakiko Hataya, a researcher from the Ocean Policy Research Institute of the Sasakawa Peace Foundation, the co-organizer of the conference, notes Japan's long history with Arctic engagement and interprets the country's Arctic posture using a historical analysis approach. In particular, her essay highlights the importance of diplomacy and scientific research in the nation's Arctic engagement by evaluating Japan's past Arctic policies, conferences, and activities. As research and international collaboration on the Arctic have been negatively affected by Russia's invasion of Ukraine and the suspension

of the Arctic Council, the essay offers best practices for Japan to enhance its Arctic research and diplomacy in an era of geostrategic tension.

While China has secured its place as a superpower, particularly in continental Asia and the Asia-Pacific, the state is now also poised to become the next “polar great power.” As China’s presence in the high north has been scrutinized in Western literature, Yitong Chen, an associate professor in the law school of the Ocean University of China, offers an original interpretation and clarifies misconceptions surrounding the state’s Arctic approach. In particular, her essay examines the rationale behind China’s heavily contested “near-Arctic state” identity, highlights the benefits of Chinese technological innovations for Arctic environmental sustainability, and demystifies the debate on the influence of China-U.S. relations in Arctic affairs. Against the backdrop of Russia’s aggression in Ukraine raising Arctic security concerns, this essay encourages all states to reorient their focus back to international cooperation, as it is the only way to ensure the Arctic remains a region of peace and low tension.

As a small, tropical island state near the equator, Singapore may not be the first place that comes to mind when discussing Arctic affairs. In her essay, Hema Nadarajah, a bioenergy specialist at the World Wildlife Fund, challenges this perception and argues that Singapore is a relevant actor in an Arctic in flux. She first offers an overview of Singapore’s past contributions and the nation’s approach to Arctic affairs. She then explores the island state’s capacity to contribute to innovation, facilitate the green climate transition, and strengthen governance in the circumpolar region. Her essay conveys a powerful message that permeates the roundtable: smaller and external actors have the ability to positively contribute and shift the needle in Arctic and global affairs. 

For Canada, Insularism Leads to a Lost Opportunity in the Arctic and Asia

Jeffrey Reeves

For decades, China, Japan, Singapore, and South Korea have invested in and expanded their presence in the Arctic, often working together with each other or cooperating with Russia or the Nordic Arctic states to increase their regional impact. Indeed, in terms of institutional development, climate change research, port development, or icebreaker technologies, these four Asian actors have been at the forefront of Arctic activity since the early 2000s, bringing both state-backed development plans and resources to the region. As a result, Beijing, Tokyo, Seoul, and Singapore have become essential actors in the high north, as they singularly and collectively provide finance and capabilities equal to—if not in excess of—any littoral state. Whereas the 20th century was the trans-Atlantic era of Arctic development, the growth of activity by Asian states suggests that 21st-century Arctic affairs will be decidedly more global, if not also more Asian, in orientation.¹

Traditional Arctic actors Iceland, Finland, Norway, Sweden, and Russia have embraced engagement with Asian states interested in the Arctic and established bilateral and multilateral modalities to facilitate even deeper regional cooperation.² Norway and Russia, for instance, have worked with Asian countries on matters of regional governance, particularly with respect to fisheries agreements, natural resource management, shipping, and environmental protection.³ Similarly, Sweden has integrated bilateral and multilateral engagement with several Asian states into its own strategic approach to the Arctic, particularly with respect to regional trade facilitation and expansion, scientific governance, and geothermal energy

JEFFREY REEVES is the Vice-President of Research and Strategy for the Asia Pacific Foundation of Canada (Canada). Prior to this, Dr. Reeves was the director of Asian Studies at the United States Army War College in Carlisle, Pennsylvania. He can be reached at <jeff.reeves@asiapacific.ca>.

¹ Jeffrey Reeves and Angela Wang, “A Canadian Arctic Policy for the Indo-Pacific,” Asia Pacific Foundation of Canada, April 5, 2022, 24 ~ https://www.asiapacific.ca/sites/default/files/publication-pdf/Arctic_Policy_EN.pdf.

² Leiv Lunde, “The Nordic Embrace: Why the Nordic Countries Welcome Asia to the Arctic Table,” *Asia Policy*, no. 18 (2014): 39–45.

³ Heljar Havnes, “Case Study: The Polar Silk Road and China’s Role in Arctic Governance,” *Journal of Infrastructure, Policy, and Development* 4, no. 1 (2020): 129; and Olav Schram Stokke, “Asian Stakes and Arctic Governance,” *Strategic Analysis* 38, no. 6 (2014): 770–83.

exploration and development.⁴ Finland and Iceland, too, have sought deeper ties with Asian states, including India, on high north matters such as science, research, and education.⁵ For the Nordic states, both a desirability and an inevitability inherent in their approach to engagement with Asian actors carry with them a transformative potential toward Arctic affairs.⁶ The government of Canada, conversely, has not pursued a policy of cooperation with any Asian state on Arctic affairs, preferring instead to work with its traditional U.S. and European partners on issues ranging from governance to regional security.⁷ This essay examines Canada's failure to integrate Asian actors in the Arctic into its Arctic policy and activities as well as the implications for Canadian policy, not just toward the north but also in the Asia-Pacific.

Canada's Arctic Policy—Traditional Alignment

Under the Trudeau administration, in particular, Canada has pursued an Arctic policy predicated on alignment with Western “like-minded states” and Western institutions like the Arctic Council and the G-7.⁸ Whereas the Trudeau administration does mention Asia in its Arctic policy, it does so solely in relation to “limiting” Chinese activity through closer coordination with its Western partner institutions, notably NATO and the North American Aerospace Defense Command (NORAD).⁹ Rather than mirroring the Nordic states' more inclusive approach to involving external actors in the Arctic, Canada instead maintains an Arctic policy more closely

⁴ “The Arctic Link: Connecting Norway, Sweden, and Russia to China Trade,” Silk Road Briefing, March 21, 2018 ~ <https://www.silkroadbriefing.com/news/2018/03/15/arctic-link-connecting-norway-sweden-russia-china-trade>; and Nong Hong, “Non-Arctic States' Role in the High North: Participating in Arctic Governance through Cooperation,” in *Marine Biodiversity of Areas Beyond National Jurisdiction*, ed. Myron H. Nordquist and Ronán Long (Leiden: Brill Nijhoff, 2021), 325.

⁵ Lassi Heininen, “Finnish Perspectives on the Arctic and Asia,” in *Asia and the Arctic*, eds. Vijay Sakhujia and Kapil Narula (Singapore: Springer, 2016), 87–97.

⁶ Willy Østregren, “Arctic Policies of Nordic States: The Politics of Geographical Definitions,” Wilson Center, Polar Initiative Policy Brief Series, September 2014 ~ https://www.wilsoncenter.org/sites/default/files/media/documents/publication/FINAL%20CI_140915_Ostregren_brief_v1.pdf.

⁷ Gregor Sharp, “Trudeau and Canada's Arctic Priorities: More of the Same,” Arctic Institute, December 6, 2016 ~ <https://www.thearcticinstitute.org/trudeau-canadas-arctic-priorities>.

⁸ Justin Trudeau, “Minister of Foreign Affairs Mandate Letter,” Office of the Prime Minister of Canada, December 16, 2021 ~ <https://pm.gc.ca/en/mandate-letters/2021/12/16/minister-foreign-affairs-mandate-letter>.

⁹ “Joint Press Conference with NATO Secretary General Jens Stoltenberg and the Prime Minister of Canada, Justin Trudeau,” NATO, August 26, 2022 ~ https://www.nato.int/cps/en/natohq/opinions_206908.htm.

aligned with that of the United States—one prioritizing Arctic sovereignty, territorial defense, and regional order.¹⁰

Three aspects of Canada's Arctic policy are worth highlighting when considering its disinterest in cooperating with and involving Asian states in the region. First, Canada's Arctic priorities are almost entirely domestic, with seven of the 2019 Arctic and Northern Policy Framework's eight agenda items focusing on matters such as inclusive growth, job creation, infrastructure development, community preservation, and reconciliation with Indigenous peoples.¹¹ While laudable in its intent, the Trudeau administration's predilection for domestic affairs in the Arctic results in a policy that is inherently inward looking. Relegated to a secondary priority, the government's Arctic foreign policy approach is correspondingly underdeveloped, conservative, and inflexible.

Second, and related, Canada's federalist system requires the central government to negotiate with Indigenous, territorial, and provincial representatives and governments to determine the country's Arctic policies and priorities.¹² While this is a feature, not a bug, of Canada's decentralized system of government, this approach means domestic, not foreign, considerations drive the federal government's Arctic policy.¹³ The 2019 framework, for instance, pays almost no attention to Canada's foreign relations in the high north but rather identifies the country's northern communities, their autonomy, and their long-term economic health as Canada's primary Arctic policy considerations.¹⁴ Practically, decentralization means that Canada lacks a unitary, centralized vision for the Arctic that promotes national over local interests in the country's policy toward the region.¹⁵ Operationally, however, decentralization leads to policy

¹⁰ U.S. Department of Defense, *Report to Congress: Department of Defense Arctic Strategy* (Washington, D.C., June 2019), 4–5 ~ <https://media.defense.gov/2019/Jun/06/2002141657/-1/-1/1/2019-dod-arctic-strategy.pdf>.

¹¹ Government of Canada, *Arctic and Northern Policy Framework* (Ottawa, September 22, 2022) ~ <https://www.rcaanc-cirnac.gc.ca/eng/1560523306861/156052330587#s6>.

¹² Government of Canada, "Highlights of Canada's Arctic and Northern Policy Framework," September 22, 2022 ~ <https://www.rcaanc-cirnac.gc.ca/eng/1567697304035/1567697319793>.

¹³ Charles Breton and Andrew Parkin, "Canadians Are Still Committed to Decentralized Federalism," Policy Options, September 28, 2021 ~ <https://policyoptions.irpp.org/magazines/septembre-2021/canadians-are-still-committed-to-decentralized-federalism>.

¹⁴ Government of Canada, "Highlights of Canada's Arctic and Northern Policy Framework."

¹⁵ Elliot J. Feldman and Lily Gardner Feldman, "The Impact of Federalism on the Organization of Canadian Foreign Policy," *Journal of Federalism* 14, no. 4 (1984): 33–59; and Stéphane Paquin, "The Role of Canada's Provinces in Canadian Foreign Policy: Multi-Level Governance in the Making," in *The Palgrave Handbook of Canada in International Affairs*, ed. Robert W. Murray and Paul Gecelovsky (Cham: Palgrave Macmillan, 2021), 141–57.

myopia and diplomatic ossification, traits one can observe in Canada's lack of engagement with Asian states in the Arctic theater.¹⁶

Third, and related, is Canada's conceptual treatment of the Arctic as a region that is "closed" to outside powers and Ottawa's parochial view that the littoral states—those with historic title—remain the region's only legitimate actors.¹⁷ Since the Harper government in 2006, in particular, Canadian policymakers have treated the Arctic as a national "strategic asset," and security practitioners have accordingly prioritized coastal defense, maritime security, and sovereign control.¹⁸ Under the Trudeau administration, Canada further doubled down on its defense positioning in the Arctic, with the 2017 defense white paper calling for an increased military and coast guard presence in the region.¹⁹ Central to defense plans are closer coordination with the Nordic chiefs of defense, NATO, and NORAD on matters such as countering Chinese and Russian influence and operations in the Arctic.²⁰ Thus, the need to limit outside powers' activities in the Arctic, including, ostensibly, all the Asian Arctic states, appears to be an essential aspect of Canada's strategic worldview.²¹

The Limitations of Failing to Welcome Asia into the Arctic

Within China, Japan, Singapore, and South Korea, Canada's resistance to their regional engagement has not gone unnoticed. As a result, Canada

¹⁶ Christian Lequesne and Stéphane Paquin, "Federalism, Paradiplomacy and Foreign Policy: A Case of Mutual Neglect," *International Negotiation* 22, no. 2 (2017): 183–204.

¹⁷ Government of Canada, *Canada's Arctic and Northern Policy Framework* (Ottawa, 2019) ~ <https://www.rcaanc-cirnac.gc.ca/eng/1560523306861/1560523330587>.

¹⁸ Indian and Northern Affairs Canada, *Canada's Northern Strategy: Our North, Our Heritage, Our Future* (Ottawa, 2009) ~ <https://publications.gc.ca/site/eng/9.674653/publication.html>.

¹⁹ Reeves and Wang, "A Canadian Arctic Policy," 14.

²⁰ Mishall Rehman, "Canada Hosts Arctic Chiefs of Defence Meeting," *Canadian Military Family Magazine*, August 12, 2022 ~ <https://www.cmfmag.ca/canada-hosts-arctic-chiefs-of-defence-meeting>; "Prime Minister and Secretary General of the North Atlantic Treaty Organization Jens Stoltenberg Visit Alberta and Nunavut," Office of the Prime Minister of Canada, August 26, 2022 ~ <https://pm.gc.ca/en/news/news-releases/2022/08/26/prime-minister-and-secretary-general-north-atlantic-treaty>; and David Lohead, "Feds Announce \$4.9 Billion to Improve Arctic Defence," *Nunatsiaq News*, June 20, 2022 ~ <https://nunatsiaq.com/stories/article/canada-announces-4-9-billion-to-improve-arctic-defence>.

²¹ Olivia Stefanovich, "Canada Looks to Reinforce Arctic Sovereignty through Diplomacy, Military, Says Minister," CBC, March 14, 2022 ~ <https://www.cbc.ca/news/politics/arctic-sovereignty-concerns-russian-invasion-ukraine-1.6383410>; Jeff Collins, "On the Arctic Watch: Why We Need to Protect Canada's Sovereignty and Security in the Far North: Jeff Collins for Inside Policy," Macdonald-Laurier Institute, January 17, 2022 ~ <https://macdonaldlaurier.ca/what-we-need-vs-what-we-have-assessing-canadas-defence-capabilities-in-the-arctic-jeff-collins-for-inside-policy>; and Whitney Lackenbauer and James Manicom, "Canada's Northern Strategy and East Asian Interests in the Arctic," Centre for International Governance Innovation, East Asia–Arctic Relations Paper, no. 5, December 9, 2013 ~ <https://www.cigionline.org/publications/canadas-northern-strategy-and-east-asian-interests-arctic>.

is now a secondary priority within their respective state-directed and Arctic-aligned engagement strategies and efforts, not because the country is an insignificant high north actor but rather because Canada remains almost exclusively insular and provincial in how it views the region. Indeed, aside from a scattering of academic cooperation programs between research centers and universities, there is little demand in Asia for closer cooperation with Canada on Arctic matters. For Beijing, Tokyo, Singapore, and Seoul, Canada is a less desirable partner as it remains a disinterested actor, one content to pursue a more protective and conservative approach and more comfortable working with its traditional, trans-Atlantic partners.

The regional perception that Canada is a disinterested Arctic actor, however, has significant geopolitical and geostrategic implications, all of which ironically result in a more diminished and dependent role for the country within the region and on the global stage.

First, Canada's nearsightedness on the value of Asian involvement in the Arctic puts it outside an emerging community of states concerned with Arctic affairs, one that will likely supplant the trans-Atlantic-based community in importance and influence in the near term. Whereas the trend among most of the traditional Arctic states is toward greater regional inclusivity, the Trudeau administration's posture is decidedly more exclusionary, whether wittingly or not. Only the United States takes a similar view of the Arctic, one based on the principles of trans-Atlantic exclusivity and regional security, primarily against Russian and Chinese "influence."²²

Second, and related, the perception of Canada as unwilling to embrace new actors in the high north increases global views—particularly within Asia—that Canada is a dependent foreign policy actor and that its approach to the Arctic amounts to nothing more than an extension of Washington's strategic priorities and worldview. Although this perception grossly overstates Canada's strategic alignment with the United States, it nevertheless persists among states that Ottawa considers to be important strategic global and regional actors, like China, Indonesia, Singapore, Thailand, and Vietnam. These states' perception that Canada is a foreign policy follower rather than a leader in the Arctic hardens even further when the government and prime minister's office use language such as "like-minded states," "rules-based order," and "democracy versus autocracy" in statements on Canada's foreign policy principles. Much as the

²² "The United States' National Strategy for the Arctic Region," White House, Fact Sheet, October 7, 2022. ~> <https://www.whitehouse.gov/briefing-room/statements-releases/2022/10/07/fact-sheet-the-united-states-national-strategy-for-the-arctic-region>.

“Global Britain” moniker ironically makes engagement with the United Kingdom less palpable for states like India and Indonesia, Canada’s reliance on U.S.-propagated discourse on the Arctic makes it a less attractive partner for non-Western states in the region.²³

Third, in identifying the G-7 and Arctic Council as the region’s legitimate sources of multilateral governance, the Canadian government seemingly seeks to strengthen Western dominance of the Arctic region while undermining the legitimacy of more inclusive institutions, such as the Arctic Circle, or rejecting the legitimacy of nonregional institutions, such as the China–Japan–South Korea trilateral.²⁴ Similarly, Canada’s cooperation with NATO and NORAD on Arctic defense, including the stated need to counter Chinese influence, suggests that Ottawa is using its Western alliances to securitize the Arctic region against outside state involvement or, even more worryingly, that Canada is willing to use military force to preserve the geopolitical status quo in the region, one that benefits its interests and disadvantages Asian states.²⁵ Whether intentional or not, the Canadian government’s insular prioritization of Western multilateralism in the Arctic translates into a policy perceived by outsiders as exclusionary, protectionist, and aggressive.²⁶

Fourth, Canadian preferential alignment with Western partners, Western discursive modes, and Western institutions deepens already existing tensions with China and Russia, in both the Arctic and the Asia-Pacific. While some Canadian policymakers and analysts may argue for a policy of confrontation with both “illiberal actors,” it is decidedly not in Canada’s national economic or security interests to face two significant strategic adversaries in the Arctic or to see the region militarized. With China, in particular, Canada can almost assuredly expect any opposition

²³ Jeffrey Reeves, *Follow the Leader, Lose the Region: A Canadian Foreign Policy for the Asia Pacific* (forthcoming, 2023). On the UK, see “Britain Can No Longer Hide behind the Myth That Its Empire Was Benign,” *Hindu Post*, August 30, 2022 ~ <https://hindupost.in/world/britain-can-no-longer-hide-behind-the-myth-that-its-empire-was-benign>.

²⁴ Andrei Skriba and Arina Sapogova, “Environment, Geopolitics and Environmental Geopolitics in the Arctic: Is There a Logic of Conflict among Institutions of Cooperation?” in *Arctic Fever*, ed. Anastasia Likhacheva (Singapore: Palgrave Macmillan, 2022), 85–112.

²⁵ Ernie Regehr, “Combat ‘Spillover’—Into and Out of the Arctic,” Simons Foundation, Arctic Security Briefing Papers, March 10, 2021 ~ <https://policycommons.net/artifacts/1723018/combatspillover/2454667>; and James Kenneth Wither, “An Arctic Security Dilemma: Assessing and Mitigating the Risk of Unintended Armed Conflict in the High North,” *European Security* 30, no. 4 (2021): 649–66.

²⁶ Gunhild Hoogensen Gjørsv and Kara K. Hodgson, “‘Arctic Exceptionalism’ or ‘Comprehensive Security’? Understanding Security in the Arctic,” *Arctic Yearbook* (2019): 218–30; Adam Perry MacDonald, “China-Russian Cooperation in the Arctic: A Cause for Concern for the Western Arctic States?” *Canadian Foreign Policy Journal* 27, no. 2 (2021): 194–210; and Rebecca Pincus, “Three-Way Power Dynamics in the Arctic,” *Strategic Studies Quarterly* 14, no. 1 (2020): 40–63.

it gives to a Chinese presence in the Arctic to be revisited in Asia, where Beijing's influence is far more widespread and China can act as a regional spoiler to Canada's Asia-Pacific engagement.

Fifth, and arguably most significant for Canada's global ambitions, the country's insular reliance on Western modalities to operationalize its Arctic foreign policy problematize the government's plan to execute an Indo-Pacific strategy. While Ottawa had not publicized a policy framework toward Asia at the time of writing, Global Affairs Canada has prioritized the development of a framework both as a matter of strategic necessity and in response to Prime Minister Justin Trudeau's 2022 mandate letter to the minister of foreign affairs. Just as Trudeau charged Foreign Minister Mélanie Joly to develop an Arctic strategy predicated on alignment with the country's strategic partners, so did he task her with developing an approach to Asia that aligned Canada more closely with its so-called like-minded partners in the Indo-Pacific.²⁷

Whether Canada opts to pursue an Indo-Pacific rather than an Asia-Pacific or Asian foreign policy, it will find its room for strategic maneuver limited by the choices it makes in the Arctic. Should the Canadian government decide to securitize China's activities in the Arctic or even remain lukewarm to Japanese, Singaporean, or South Korean overtures toward the region, there will naturally be less receptiveness to its own national interests in Asia, regardless of the terminology it uses to stake its strategic claim in that region's fast-moving geopolitical theater.

Beyond the potential for reputational damage in a region where Canada, too, is somewhat of a strategic outsider, this failure to account for Asian states' interests and activities in the Arctic also translates as a failure to use the high north to advance Canadian interests and relationships in Asia. Canada could use its status as an Arctic state and its recognition of Asian states' legitimate interests there—in areas such as scientific research, port development, and shipping—to engage with institutions such as the China–Japan–South Korea trilateral summits on the Arctic. This Asian-based dialogue mechanism could be an entry point for Canadian engagement on Northeast Asia's broader security architecture. Similarly, Canada could leverage support for Singapore's Arctic interests to secure Singaporean support for Canadian activity in Southeast Asia. As improving relations with Singapore remains a Canadian government priority in the Indo-Pacific, it would make strategic sense for Ottawa to realize its value as

²⁷ Trudeau, "Minister of Foreign Affairs Mandate Letter."

a broker in the high north region to enhance its overall value as a bilateral partner. Even with India—which released an Arctic policy in 2022 and is an Arctic Council observer state, but remains a regional player in theory more than in practice—Canada could dangle Arctic cooperation as a potential incentive in the two countries' ongoing discussions toward a free trade agreement. A more inclusive policy toward the Asian states would notably enhance Canada's position as an Arctic power and an Asia-Pacific actor.

Conclusion: Canada's Potential to Be a Global Leader on the Arctic

Rather than seeing its interests as best served by keeping the Arctic closed to all but the adjacent countries (perhaps out of the unfounded fear that more actors would dilute its influence), Canada should instead seek to emerge as a global leader in the Arctic on matters of politics, economics, climate, and security it prioritizes. In pursuing such accommodations, the Canadian government can rest assured that no number of new Arctic actors will displace its geographic proximity or importance to the region—a simple idea, of course, but one that policymakers seem to feel has some transitory quality.

Canada need not worry about the effect that Asia's Arctic-involved states will have on its Arctic sovereignty any more than China or Southeast Asian states should worry that keeping the South China Sea open to global shipping and naval traffic will undermine their national security or delegitimize their own status as regional states. Indeed, the idea that states cannot restrict access to international spaces is at the very heart of the rules-based order and international law Canada promotes and commits to protect in the Arctic. Thus, rather than pursue an exclusionary policy toward the region—one that privileges trans-Atlantic over Asian access and interests in the Arctic—the Canadian government should actively pursue an inclusive policy that sees engagement as a means to regional peace and stability, not conflict and strife. ♦

Japan's Arctic Policy: Status and Future Prospects

Sakiko Hataya

In the Arctic, temperatures are rising three times as fast as the global average. Global warming has caused rapid and widespread changes in sea and land ice (glaciers and ice sheets), permafrost, snow cover, and other geological elements. Warmer Atlantic and Pacific waters flowing into the Arctic Ocean and reduced sea ice cover are resulting in the northward range expansions of sub-Arctic fish and marine mammals.¹ These swift environmental changes have also led to increased use of the Northern Sea Route (NSR) through the polar region and greater resource development in the Arctic Ocean as international interests in the region continue to develop rapidly.

Japan is not an Arctic state, but it is easily affected by the climate change taking place in the high north through oceanic and atmospheric circulation. It is the closest Asian country to the Arctic Ocean and as a result enjoys many opportunities in the region's economic and commercial sectors, such as access to the Arctic sea routes. Japan has been participating in and contributing to the Arctic Council discussions since it first gained observer status in 2013, and it has continued its observation and research activities on environmental changes in the Arctic. Japan expects to continue to actively contribute to the Arctic region.

This essay reviews the history of Japan's Arctic policy and discusses the extent of the country's involvement in the Arctic region in recent years. Following Russia's invasion of Ukraine, international relations in the Arctic have been rapidly changing. The functioning of the Arctic Council has all but ceased, and international research cooperation and data sharing with Russia have also been discontinued. Amid such complicated international relations, this essay outlines how Japan should be involved in the Arctic region.

Japan's History in the Arctic


The first milestone for Japan regarding engagement in Arctic affairs was the 1957 research expedition of Hokkaido University professor Ukichiro

SAKIKO HATAYA is a Research Fellow at the Ocean Policy Research Institute of the Sasakawa Peace Foundation (Japan). Her research is centered on the law of international organization and polar law as well as the functions of the Arctic Council. She can be reached at <s-hataya@spf.or.jp>.

¹ "Arctic Climate Change Update 2021: Key Trends and Impacts," Arctic Monitoring and Assessment Programme ≈ <https://www.amap.no/documents/download/6759/inline>.

Nakaya, who participated in the U.S. Arctic expedition to Greenland. For several years thereafter, Nakaya traveled to Greenland every summer to study the ice and snow. In the 1990s, Japan furthered its Arctic research capacity with the creation of the Arctic Environment Research Center at the National Institute of Polar Research in Tokyo. In 1991, Japan became the first non-Arctic state to establish an observation station in the region, in Ny-Ålesund, Norway, and was also the first non-Arctic state to join the International Arctic Science Committee. Hokkaido, the northernmost region of Japan hosted the First International Conference on Human Environment in Northern Regions in 1976, and it became a founding member of the Northern Forum that emerged from the conference series in 1991. Since 1996, Hokkaido has financially supported the high north region in the areas of economics, life, education, welfare, sport, and culture. In 1993, Japan joined the Barents Euro-Arctic Council, the official body for intergovernmental cooperation in the Barents Sea region, as an observer state. Representatives of Japan were even present at the signing of the Ottawa Declaration that formally established the Arctic Council in 1996. Much more recently, Japan hosted the 2015 Arctic Science Summit Week, the most important international conference on Arctic research.

After perestroika in the Soviet Union, the Arctic Ocean, which had long been closed to other states, began to open to international navigation, and Norway approached Japan to discuss developing the NSR as a commercial shipping route between the Far East and Europe. Following this proposal, Japan initiated joint international research on the NSR in 1993, with the Ship and Ocean Foundation of Japan (the forerunner to the Ocean Policy Research Institute of the Sasakawa Peace Foundation) partnering with the Fridtjof Nansen Institute of Norway and the Central Marine Research and Design Institute of Russia. These organizations mutually agreed on the importance of the NSR and launched the International NSR Programme to help map out potential shipping opportunities through the NSR above Russia. To establish the NSR as a permanent commercial sea route, developing hardware- and software-based navigation systems, an emergency refuge and rescue support system, and mutually satisfactory legal, tax, and tariff frameworks for profitable and economical shipping were all necessary endeavors.² From the project's inception, Japan focused on the feasibility of the NSR as a passageway, conducting research and analysis.

² Ship and Ocean Foundation, *The Northern Sea Route: The Shortest Sea Route Linking East Asia and Europe* (Tokyo: Ship and Ocean Foundation, 2001)  https://www.spf.org/en/_opri_media/publication/pdf/200103_rp_ar0103e.pdf.

Unfortunately, however, industry has been reluctant to utilize and actively develop the route. In 2010 the Ocean Policy Research Foundation (the Ocean Policy Research Institute's direct predecessor) initiated the Arctic Conference Japan, which engaged experts in fields such as international law, security, scientific research, and shipbuilding, to raise awareness of the importance of the Arctic and its surrounding waters.

Having submitted an application to become an Arctic Council observer in 2009, Japan's regional engagement developed further in 2013 when it was granted official observer status at the Kiruna Ministerial Meeting alongside China, India, the Republic of Korea (ROK), Singapore, and Italy. In 2015, Japan adopted its first official Arctic policy and became involved in shaping the Arctic's legal order through participation in the 5+5 process that led to the International Agreement for Fishing in the Central Arctic Ocean. Undertaking scientific research and conducting science diplomacy in the region have always been key priorities for Japan. During the negotiations for the 2017 Agreement on Scientific Cooperation under the auspices of the Arctic Council, Japan was one of the key observer states to make a positive contribution to the negotiations, which will be discussed later in this essay.

Japan's Recent Engagement in Arctic Activities

The cornerstone of Japan's Arctic involvement has been its 2015 Arctic Policy. The policy is a comprehensive statement of Japan's fundamental outlook regarding the high north, with a strong emphasis on international cooperation. It outlines specifically the country's three key interests in the Arctic: research and development, international cooperation, and sustainable use.³

In its broader Third Basic Plan on Ocean Policy, in which the Japanese government established a strategy to comprehensively and systematically promote ocean-related policies, the Arctic policy was positioned as a major policy for the first time. The plan states that Japan can enjoy significant economic and commercial opportunities from the high north environment, including the utilization and economic development of the NSR, with participation in Russia's Yamal liquefied natural gas (LNG) project cited as a specific activity.⁴ The plan also states that Japan's greatest strength in

³ Cabinet Office (Japan), "Japan's Arctic Policy (Provisional Translation)," October 16, 2015 ~ https://www8.cao.go.jp/ocean/english/arctic/pdf/japans_ap_e.pdf.

⁴ Cabinet Office (Japan), "The Basic Plan on Ocean Policy (Provisional Translation)," May 15, 2018, 37 ~ https://www8.cao.go.jp/ocean/english/plan/pdf/plan03_e.pdf.

leading Arctic policy is science and technology, an extremely important means of both participating in the formation of international rules and promoting international cooperation. It additionally confirms that relevant international laws, such as the United Nations Convention on the Law of the Sea, must be observed in the Arctic Ocean and emphasizes the importance of ensuring the “rule of law.”⁵

As noted above, Japan has long made scientific activities a priority in the polar region. The Third Basic Plan on Ocean Policy asserts that “Japan should make the best use of its strengths, engage in active international cooperation, and enhance collaboration between stakeholders in comprehensive, cross-disciplinary research.”⁶ In this way, Japan’s involvement in the Arctic region is clearly focused on scientific cooperation.


The Agreement on Enhancing International Arctic Scientific Cooperation. The Agreement on Enhancing International Arctic Scientific Cooperation serves as a good opportunity for the future implementation of Japan’s Arctic policy. The eight Arctic governments signed the agreement on May 11, 2017, in Fairbanks, Alaska, and it entered into force on May 23, 2018.⁷ The purpose of this agreement is to enhance cooperation in scientific activities to increase the development of scientific knowledge of the Arctic.⁸ In recognition of their input and continued importance to regional research, as well as the already existing partnerships between the Arctic states, non-Arctic states, and research organizations, the Arctic Council observers were invited to present comments on proposed drafts and were actively involved throughout the negotiation process.

Following its mandate in the Arctic and Third Basic Ocean Policies, Japan actively engaged in its observer role during the Arctic Council’s negotiation of the agreement. In 2015, at the Scientific Cooperation Task Force meeting, Japan and other Arctic observers—France, the United Kingdom, and Germany—submitted a joint statement that amended the definition of “participants” and “joint activities” in Article 1 and Article 18 regarding cooperation with nonmember states in the Copenhagen draft of the agreement. One of the goals of Japan’s policy is to “participate actively

⁵ Cabinet Office (Japan), “The Basic Plan on Ocean Policy (Provisional Translation),” 38.

⁶ Cabinet Office (Japan), “Japan’s Arctic Policy.”

⁷ The eight Arctic states are the states with territory above the Arctic Circle: Russia, Finland, Sweden, Norway, Denmark (Greenland), Iceland, Canada, and the United States.

⁸ “Agreement on Enhancing International Arctic Scientific Cooperation,” Arctic Council, May 11, 2017, 4  <https://oaarchive.arctic-council.org/handle/11374/1916>.

in discussions of expanding the role of observers,”⁹ with the negotiation process of the agreement exemplifying a burgeoning interest from Japan toward achieving this goal.

As noted above, scientific data collection and observation is a strong point for Japan and a much-needed contribution to international Arctic scientific research. Japan has an opportunity to continue to engage on this front, and to actively participate in the development of further cooperation in international Arctic science research. With regard to Japan’s future engagement with the Arctic Council, an article in the Agreement on Enhancing International Arctic Scientific Cooperation declares that observer states can also gain benefits indirectly. Paragraph 11 of the agreement’s preamble recognizes the significant scientific expertise and invaluable contribution made by observer states to scientific activities in the region. Japan is also expecting that Article 17, relating to cooperation with non-parties, will be actively utilized to facilitate greater international cooperation with scientists in the Arctic states. Should it prove necessary, Japan could also deepen scientific engagement by reaching bilateral agreements with the Arctic states. For example, Japanese scientists can promote activities through the September 2000 agreement signed between Russia and Japan on scientific and technical cooperation.¹⁰

Keiji Ide, a former Japanese ambassador in charge of Arctic affairs, refers to the “importance of cooperation with holders of traditional and local knowledge,” which is described in Article 9 of the Arctic Council Agreement. He raises the example of Japanese scientists and researchers who have been cooperating with Indigenous peoples, especially in Greenland.¹¹ In terms of Indigenous peoples, Japan’s Arctic policy states that “Japan needs to examine how we can contribute to achieve sustainable development of which the indigenous people can see benefits while protecting the foundations of traditional cultures and lifestyles.”¹² Japanese scientists who individually cooperate with Indigenous peoples provide some examples of this work and research; however, there is no firm policy

⁹ Cabinet Office (Japan), “Japan’s Arctic Policy,” 8.

¹⁰ Akiho Shibata, “Chumoku sa re hajimeta hokkyoku kagaku kyoryoku kyotei: Nihon no Roshia kaiiki kagaku chosa e no shisa” [Arctic Scientific Cooperation Agreement Has Begun Attracting Attention: Suggestions for Japan’s Scientific Research in the Russian Sea Area], Ocean Newsletter, Sasakawa Peace Foundation ~ https://www.spf.org/opri/newsletter/421_3.html.

¹¹ Keiji Ide, “Japan’s Role in Formation and Strengthening of Arctic Legal Orders,” in *Emerging Legal Orders in the Arctic: The Role of Non-Arctic Actors*, ed. Akiho Shibata et al. (London: Routledge, 2019).

¹² Cabinet Office (Japan), “Japan’s Arctic Policy,” 3.

from the Japanese government that frames ways for Japan to contribute to achieving sustainable development for Indigenous peoples.

The Third Arctic Science Ministerial. The third Arctic Science Ministerial (ASM3), held in Tokyo on May 8–9, 2021, and the largest such event to date, was co-hosted by Japan and Iceland. Delegates from 35 countries, regions, and Indigenous peoples' organizations participated. The Arctic Science Ministerial is a meeting intended to promote research, observations, and countermeasures to address major social problems in the Arctic. It also aims to further scientific cooperation among concerned states and with Indigenous peoples' organizations. The ASM3 was co-hosted by Japan's Ministry of Education, Culture, Sports, Science and Technology (MEXT) and Iceland's Ministry of Education, Science and Culture and was co-chaired by their respective ministers. The overarching theme was "knowledge for a sustainable Arctic," which included four subthemes: "observe," "understand," "respond," and "strengthen."¹³ All parties at the meeting agreed to promote international cooperation in scientific fields concerning the Arctic, enhance understanding, and support science, which is the basis of policymaking toward the Arctic.¹⁴

Cooperation between Japan and Other Asia-Pacific States on the Arctic

To strengthen international cooperation, including collaboration with the Asia-Pacific states, Japan has proposed advanced efforts in terms of both mitigation and adaptation for the Arctic region.¹⁵ Following a proposal from the ROK, the first Trilateral High-Level Dialogue on the Arctic took place between the ROK, Japan, and the People's Republic of China in Seoul in 2016. The three countries "discussed the guiding principles of the trilateral Arctic cooperation and shared the view that the three countries should continue their commitments of contribution to the Arctic Council and

¹³ "Observe" entailed implementing observing networks and data sharing; "understand" stood for enhancing understanding and prediction capability for Arctic environmental and social systems for the global impact of these changes; "respond" included operationalizing sustainable development, evaluating vulnerability and resilience, and applying knowledge; and "strengthen" represented preparing the next generation through capacity building, education, networking, and resilience.

¹⁴ "Dai 3-kai hokkyoku Kagaku daijin kaigo (ASM3) o kaisai, kako saita 35 no kuni to dantai ga sankaku 5 tsuki 8-nichi (doyobi), 9-nichi (nichiyobi) kagaku gijutsu gakujuutsu" [The 3rd Arctic Science Ministers' Meeting (ASM3) Was Held, with the Participation of a Record 35 Countries and Organizations], Ministry of Education, Culture, Sports, Science and Technology (MEXT) (Japan), May 8–9, 2021 ≈ https://www.mext.go.jp/b_menu/activity/detail/2021/20210508.html.

¹⁵ Cabinet Office (Japan), "Japan's Arctic Policy," 3.

enhance their cooperation within various international fora.¹⁶ Possibilities for enhanced cooperation across different areas of scientific research were also explored. Scientific research is the most promising area for future joint and trilateral activities and should be encouraged.¹⁷ The fourth Trilateral High-Level Dialogue on the Arctic was held in the ROK in June 2019. The three delegations reaffirmed their dedication to the work of the Arctic Council and continued engagement with Arctic-related international events.¹⁸ However, tangible cooperation between these three countries has yet to materialize.

Since the start of the Covid-19 pandemic, another trilateral meeting has not been held, and there are currently no plans for one. If conducting dialogue at the Track 1 level proves difficult, it may be necessary to commence dialogue at the Track 2 level instead. Direct cooperation among researchers could also prove effective.

Recommendations for Japan's Arctic Policy

Currently, Japan's Arctic research is led by the National Institute of Polar Research, the Japan Agency for Marine-Earth Science and Technology (JAMSTEC), and Hokkaido University under the national flagship project entitled "Arctic Challenge for Sustainability II." The project's goal is to "promote advanced research and provide domestic and international stakeholders with scientific knowledge that will serve as the basis for a legal and policy response to international rule-making in the Arctic."¹⁹ However, efforts on this project and study of the Arctic are largely based on the expertise and interests of individual researchers rather than on the strategies set forth in the government's Arctic policy, and there is little in the way of cross-disciplinary research. Therefore, to enhance Japan's presence in the international Arctic community, and to steadily implement

¹⁶ "Joint Press Release of the First Trilateral High-Level Dialogue on the Arctic among the Republic of Korea, Japan, and the People's Republic of China," Ministry of Foreign Affairs (ROK), Ministry of Foreign Affairs (Japan), and Ministry of Foreign Affairs (People's Republic of China), Press Release, April 28, 2016 ~ <https://arcticportal.org/ap-library/news/1742-joint-press-release-of-the-first-trilateral-high-level-dialogue-on-the-arctic-among-the-republic-of-korea-japan-and-the-people-s-republic-of-china>.

¹⁷ "Joint Press Release of the First Trilateral High-Level Dialogue."

¹⁸ "The Fourth Trilateral High-Level Dialogue on the Arctic, Busan, June 25–26, 2019," Ministry of Foreign Affairs (ROK), Press Release, June 27, 2019 ~ http://www.mofa.go.kr/eng/brd/m_5676/view.do?seq=320574.


¹⁹ "ArCS II hokkyoku-iki kenkyu kasoku purojekuto no gaiyo" [Overview of the ArCS II Arctic Research Acceleration Project], Arctic Challenge for Sustainability II ~ <https://www.nipr.ac.jp/arcs2/about>.

the initiatives set forth in Japan's Arctic policy, a long-term framework with an eye to the future is required.

Japan tends to focus on the scientific research contributions it can make to the Arctic; however, since the Arctic region is a complex area involving a wide range of political, economic, and security matters, among other issues, it is also necessary to promote research and analysis in relevant areas other than just science. Japan aims to reach out to the high north region through the Arctic Council, even though there are other avenues through which dialogue is currently being pursued, such as bilateral and multiparty cooperation and regional forums. Especially now that the functions of the Arctic Council have been suspended because of Russia's invasion of Ukraine, Japan must seek a forum through which it can actively engage in dialogue on Arctic politics.

Furthermore, Japan should start developing plans to effectively utilize its new Arctic research vessel that is currently under construction. JAMSTEC announced that it would begin building a new Arctic research vessel with icebreaking capability in 2021 over the course of five years for an investment of 33.5 billion yen. The ship is to be used as an international platform for researchers from various states.²⁰ There is an urgent need for capacity building among the next generation of Arctic researchers in both Arctic and non-Arctic states alike. At ASM3, Koichi Hagiuda, minister of MEXT, proposed utilizing the new research vessel as an international platform, thus accelerating overall capacity building. While the ship can be used as an international research platform, there is no detailed information yet on the specific countries or research institutions with which the joint research would be conducted. Early efforts, such as the preparation of memoranda of understanding and research plans, are needed now.

As mentioned above, the Arctic is a region where science, economics, politics, security, and other factors are intricately intertwined. Japan's "Arctic Challenge for Sustainability II" has established a program to send young researchers abroad and is actively seeking candidates to fill these positions. However, the program requires further attention and refinement. It currently does not seem to be well-defined in terms of establishing its targeted fields in which to foster young researchers and does not seem to be succeeding in the researchers' development or the creation of an international scholars network.

²⁰ "Arctic Research Vessel Overview: Background on the Arctic Research Vessel," Arctic Research Vessel Project, JAMSTEC  <https://www.jamstec.go.jp/parv/e/overview>.

Conclusion

The current environmental and political situation in the Arctic is changing rapidly, and Japan is not in a position to ignore these changes. However, Japanese research policy toward the region is often determined by the interests of individual researchers, and there seems to be no coherent strategic policy in place. Japan has been involved in Arctic research for many years and has accumulated a great deal of knowledge about this region. The government should re-examine the country's involvement in Arctic research, politics, and legislation to increase its presence and level of influence in the region. Additionally, the government's Arctic policy has not been updated since it was first adopted in 2015 and is not responsive to the rapidly changing situation; this policy should be updated. There is also an urgent need to foster young researchers, and measures should be taken to proactively export researchers from Japan who can play an active role in this international arena while making good use of the country's new Arctic research vessel. ◆

China's Arctic Policy and Engagement: Review and Prospects

Yitong Chen

The Arctic is experiencing greatly accelerated change under the influence of climate change, economic globalization, and world power shifts. After China became an official observer state of the Arctic Council in 2013, its involvement in Arctic affairs has grown increasingly and intensively. It has been particularly prominent in three areas: science, economics, and governance. When China became an observer state, few people could have predicted the extent to which the world would change over the next decade. At that time, China did not stand out so much from the other four new observer countries in Asia (Japan, South Korea, Singapore, and India). Features such as Japan's close scientific cooperation with Arctic countries, South Korea's shipbuilding skills, and Singapore's important shipping position are why they have been granted observer status.

A year later, however, a series of black swan events occurred, starting with the Crimean crisis in 2014. Like dominoes, the world landscape has since shifted dramatically. In 2016, Britain announced its departure from the European Union, while Donald Trump was elected president of the United States. After then U.S. secretary of state Mike Pompeo delivered an infamous speech at the ministerial meeting in 2019 warning China and Russia against "aggressive behavior," the Arctic Council closed for the first time without issuing a joint statement.¹ In the speech, Pompeo used metaphorical and parallel questions to warn about China's presence in the Arctic, such as "Do we want the Arctic Ocean to transform into a new South China Sea, fraught with militarization and competing territorial claims?"² However, this situation cannot happen because China has no legal right to claim any territorial sovereignty in the Arctic. Moreover, the only territorial dispute in the Arctic—over the small island Hans Island between Canada

YITONG CHEN is an Associate Professor in the Law School of the Ocean University of China (China). Her research interests include polar law, law of the sea, and international environmental law. She can be reached at <chenyitong@outlook.com>.

¹ Somini Sengupta, "United States Rattles Arctic Talks with a Sharp Warning to China and Russia," *New York Times*, May 6, 2019 ~ <https://www.nytimes.com/2019/05/06/climate/pompeo-arctic-china-russia.html>.

² "U.S. Stuns Audience by Tongue-Lashing China, Russia on Eve of Arctic Council Ministerial," *Barents Observer*, May 6, 2019 ~ <https://thebarentsobserver.com/en/arctic/2019/05/us-stuns-audience-tongue-lashing-china-russia-eve-arctic-council-ministerial>.

and Denmark (via Greenland)—was peacefully settled with an agreement.³ When Covid-19 arrived, China was the first to respond with a strict epidemic prevention policy, but the country also entered a three-year self-imposed quarantine that slowed communication with the international community. At the same time, however, China has further deepened cooperation with Russia. In February 2022, after meeting at the Winter Olympics opening ceremony in Beijing, Xi Jinping and Vladimir Putin issued a joint statement that announced their intention to develop a “polycentric world order.”⁴ The world now is a very different place than it was in 2013.

China released its official white paper on Arctic policy in 2018.⁵ The white paper marked the culmination of a five-year period of gradual outreach and initial involvement in the Arctic governance arena as an Arctic Council observer state. Therefore, its release announced the beginning of the first year of the country’s full participation in Arctic affairs in a mature and steady manner, guided by defined objectives and principles. This essay reviews China’s involvement in Arctic affairs, using the white paper as a blueprint. Following a discussion of China’s Arctic identity, the subsequent two sections concentrate on Arctic science and technology development and international cooperation in polar science. The essay then concludes by commenting on the implications of the current Russia-Ukraine conflict for Arctic governance and China’s position and prospects in the region.

China’s Identity in the Arctic

If there were keywords to describe China’s identity in the Arctic, they would be “near-Arctic state” and “stakeholder.” The logic behind the description of China as a near-Arctic state is that it is one of the continental states closest to the Arctic Circle. The proximity is not only geographic. Environmental changes in the Arctic have caused a series of direct impacts in China as well as indirect implications for its economic interests in agriculture, forestry, fishery, marine industry, and other sectors.

³ Maura Forrest, “Canada and Denmark Settle ‘Whisky War’ with a Bottle Exchange,” *Politico*, June 14, 2022 ≈ <https://www.politico.com/news/2022/06/14/canada-denmark-whisky-war-00039575>.

⁴ “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,” President of Russia, February 4, 2022 ≈ <http://en.kremlin.ru/supplement/5770>.

⁵ State Council Information Office of the People’s Republic of China (PRC), *China’s Arctic Policy* (Beijing, January 2018) ≈ https://english.www.gov.cn/archive/white_paper/2018/01/26/content_281476026660336.htm.

The white paper has to some extent responded to long-standing international speculation and questions about China's Arctic position and whether China will disrupt the established international order in the Arctic. However, China's self-perception as a near-Arctic state remains the most attacked concept in the paper. For example, one scholar has argued that the logical members of the "near-Arctic club" should be Iceland and Japan, while China's claim to be one is less convincing.⁶ But since the release of the white paper, China has not abandoned this concept and has tried to explain its understanding of this near-Arctic identity on various occasions. For example, Gao Feng, the special representative for Arctic affairs in the Ministry of Foreign Affairs, restated that "China is a near-Arctic state" in his speech at the Arctic Circle China Forum in May 2019 in Shanghai.⁷

In explaining that China is an important stakeholder in Arctic affairs, the white paper focuses on two aspects. First, the Arctic not only has a direct impact on China in many aspects, but the country also is closely involved in many transregional and global issues in the Arctic. Second, China has long been involved in Arctic affairs, including scientific investigation and exploration. In addition, the Arctic region is one of the most influential regions for China to project national power. The legal fact that China does not hold territorial sovereignty in the Arctic naturally limits and restricts the extent of this national power projection. However, given China's position in global affairs, combined with the two reasons mentioned above, it is not excessive to call China an important stakeholder in Arctic affairs.

China's Focus on Science and Technology

The white paper does not explicitly address what exactly China's interests in the Arctic include. However, the answer to this question can be inferred from the paper and China's involvement in the Arctic. The white paper includes four parts: "The Arctic Situation and Recent Changes," "China and the Arctic," "China's Policy Goals and Basic Principles on the Arctic," and "China's Policies and Positions on Participating in Arctic Affairs." Of these four sections, three and four are the most important. China's policy goals for the Arctic are to understand, protect, develop, and participate in the region's governance, both to safeguard the common

⁶ Barry Scott Zellen, "China and the 'Near-Arctic': An Opportunity Lost Over 150 Years Ago," *Georgetown Journal of International Affairs* (2019) ~ <https://gjia.georgetown.edu/2019/09/05/china-and-the-near-arctic>.

⁷ Gao Feng, "China Is a Near-Arctic State" (speech at the 2019 Arctic Circle China Forum, Shanghai, May 10, 2019), available on Twitter at <https://twitter.com/i/status/1129701504171073536>.

interests of all countries and the international community and to promote sustainable development. To realize these goals, China will participate in Arctic affairs following the basic principles of “respect, cooperation, win-win result, and sustainability.”⁸

Under the section “China’s Policies and Positions on Participating in Arctic Affairs,” the country’s Arctic interests are clear and manifest in three major areas: science, economics, and governance. These interests are summarized in five points: scientific interests are expressed in point 1 (“deepening the exploration and understanding of the Arctic”) and point 2 (“protecting the eco-environment of the Arctic and addressing climate change”). Economic interests are expressed in point 3 (“utilizing Arctic resources in a lawful and rational manner”). Finally, governance interests are expressed in point 4 (“participating actively in Arctic governance and international cooperation”) and point 5 (“promoting peace and stability in the Arctic”). Of course, the interests in and activities of these three areas are not separate from others. For example, China is a contracting party to the United Nations Framework Convention on Climate Change, the Kyoto Protocol, and the Paris Agreement. China has included its nationally determined contribution (NDC) to mitigate greenhouse gas emissions in its overall national development agenda and planning. Furthermore, the country has been actively involved in international climate governance, especially since ratifying the Paris Agreement. Climate change is an area where science and governance intersect. Following the promulgation of the International Code for Ships Operating in Polar Waters (Polar Code), which was developed and regulated by the International Maritime Organization (IMO), China, as a permanent Class A member of the IMO, ratified the Polar Code. This is another area at the intersection of economics and governance.

This essay will not go into more detail on economics and governance. This is not only because of space constraints but also because China’s economic interests and governance actions in the Arctic have had a much higher profile for a long time. Scientific interests, to which the essay will turn, have received less attention.

Science and Technology Development

Understanding the Arctic requires the support of scientific research and technical equipment. According to the white paper, China aims to

⁸ State Council of the People’s Republic of China (PRC), *China’s Arctic Policy*.

improve its capacity for scientific research on the Arctic. China has already undertaken a great deal of work on Arctic scientific research planning and deployment, infrastructure development, and international science and technology cooperation, guided by a series of national policy and planning documents. In particular, against the backdrop of the United States' inclusion of a range of Chinese high-tech product manufacturing and service sector companies on its Entity List since 2018 on the grounds of safeguarding U.S. national security interests, China has further accelerated its independent science and technology development under pressure, including in polar science and technology.

During the 13th Five-Year Plan period in 2017, the Ministry of Science and Technology, the Ministry of Land and Resources, and the former State Oceanic Administration (the latter two ministries were merged into the Ministry of Natural Resources in 2018) promulgated the Special Plan for Science and Technology Innovation in the Marine Field (2016–2020). This plan proposed to carry out basic scientific research on global ocean changes and polar science, study the impact of polar environmental changes on global climate change, and promote the development of key polar technology research and equipment.⁹ China issued the Outline of the 14th Five-Year Plan (2021–2025) for National Economic and Social Development and Vision 2035 in spring 2021. The document states that China will increase practical cooperation with coastal countries in the fields of marine environmental monitoring and protection, scientific research, and maritime search and rescue, and that it will intensify the evaluation of deep-sea strategic resources and biodiversity. It also indicates that “China will join in practical cooperation in the Arctic and build the ‘Silk Road on Ice.’”¹⁰

The development of polar science and research will help China achieve the goal of protecting the Arctic by actively responding to climate change and protecting the region's unique natural environment and ecological system. For example, polar satellites not only can observe and accurately forecast the weather and ice conditions in Arctic shipping routes to ensure safe navigation, they also can further promote research on climate science. Polar ships also require extensive navigation infrastructure during their

⁹ State Council (PRC), “Shi San Wu” hai yang ling yu ke ji chuang xin zhuan xiang gui hua” [Three Departments Jointly Issued the “13th Five-Year Plan” for Scientific and Technological Innovation in the Marine Field], May 22, 2017 ~ http://www.gov.cn/xinwen/2017-05/22/content_5195566.htm. For the full text, see <https://www.askci.com/news/chanye/20170518/11275198345.shtml>.

¹⁰ National People's Congress (PRC), “Outline of the 14th Five-Year Plan (2021–2025) for National Economic and Social Development and Vision 2035 of the People's Republic of China,” March 13, 2021, available at https://www.fujian.gov.cn/english/news/202108/t20210809_5665713.htm.

voyage and communication infrastructure between the ship and the coastal land to ensure direct communication links—another area where China can contribute. On September 12, 2019, China launched the Ice Pathfinder (BNU-1). Developed by Beijing Normal University, it is the first satellite dedicated to polar remote-sensing observation. BNU-1 is designed to conduct all-weather polar climate and environmental observations around the Earth's orbit¹¹ and has already completed two phases of Antarctic and Arctic Greenland observation missions. Year-round operation of the Northern Sea Route will require up-to-date Earth remote-sensing and automatic vessel identification systems via satellite for safe and reliable shipping through the Arctic.

The permafrost that covers more than 60% of Russia's territory is thawing at an accelerated rate due to rising temperatures, also releasing more greenhouse gases such as methane into the air and contributing to global warming. Reliable tracking of Arctic methane emissions is critical to the quality of research on Arctic climate science, but few satellites can track these emissions. In the short term, global Arctic science might be able to sustain the impact of the war between Russia and Ukraine. However, “over the long term, the rupture in relations could permanently degrade the quality of Arctic climate science.”¹² In the current situation, Chinese polar satellite development technology may provide an alternative to remote-sensing observations in Russia.

China could also play a more prominent role in the development and application of polar nuclear-powered icebreakers. Currently, Russia is still the only country that builds and operates nuclear-powered icebreakers. The *Xue Long 2*, which entered service in 2019, is China's first independently built polar icebreaker and scientific research vessel. As a conventional-powered icebreaker, it cannot compete with nuclear-powered icebreakers in terms of hull and power. However, according to a working paper released by the Ministry of Transport in 2021, a new, third icebreaker is already under development.¹³ Moreover, in 2018 the China National Nuclear Corporation initiated bidding for China's first nuclear-powered

¹¹ Gunter D. Krebs, “BNU 1 (Jingshi 1),” Gunter's Space Page ~ https://space.skyrocket.de/doc_sdat/bnu-1.htm.

¹² Alexandra Witze, “Russia's War in Ukraine Forces Arctic Climate Projects to Pivot,” *Nature* 607, no. 432 (2022) ~ <https://doi.org/10.1038/d41586-022-01868-9>.

¹³ “Jiao tong yun shu bu guan yu bu jiu zhu da lao ju kai zhan zhong xing po bing jiu zhu chuan yan jiu deng jiao tong qiang guo jian she shi dian gong zuo de yi jian” [Ministry of Transport to Carry Out Heavy Icebreaking Rescue Ship Research and Other Traffic Power Construction Pilot Work], Ministry of Transport (PRC), October 26, 2021 ~ https://xxgk.mot.gov.cn/2020/jigou/zghgs/202110/t20211026_3623048.html.

icebreaking vessel. The tender announcement required the ship to have the ability to break the ice, open polar waterways, and at the same time account for the functions of power supply, marine supply guarantee, and rescue.¹⁴

In the last two years, the issue of climate change has returned as one of the core issues of Arctic governance. This return has been influenced by the Glasgow Climate Pact, the Biden administration's renewed focus on climate change, and the high importance of this issue in the updated Arctic strategies of the Arctic states in recent years. China's Arctic white paper includes a special section for addressing climate change, but Beijing has yet to make further official statements on the subject in the Arctic since then. However, on September 22, 2020, President Xi Jinping announced at the UN General Assembly that China will take more effective measures "to reach the peak of carbon dioxide emissions by 2030, and strive to achieve carbon neutrality by 2060." The development and utilization of nuclear-powered icebreakers can reduce energy costs and help China meet its proposed NDC targets from the Paris Agreement as well as the current national dual-carbon goals.

International Cooperation in Polar Science

Table 1 illustrates international cooperation between China and other countries on Arctic topics. An analysis of all research papers published in the Web of Science database from 2013 to 2021 with the Arctic as a theme yields several significant findings.

Since 2013, the number of papers on Arctic topics published by China in collaboration with other countries has been steady. Research institutions originating in the United States have led the country to be consistently ranked first among China's Arctic research partner states regarding the number of publications. Canada was the second most cooperative country until 2018. However, since 2018, Russia has overtaken Canada in terms of collaboration with China on Arctic publications. There has also been a slowdown in the volume of U.S.-China cooperation after 2018. Three main reasons likely explain these trends.

One reason is closer relations between China and Russia. Between July and December 2017, the two countries held three leadership-level meetings.

¹⁴ "He dong li po bing zong he bao zhang chuan shi fan gong cheng ji shu zi xun yu fu wu wai wei xiang mu—Jie guo gong shi" [Nuclear-Powered Icebreaking Comprehensive Support Vessel Demonstration Engineering Technical Consultation and Service Outsourcing Project—Results Announcement], July 20, 2018 ≈ <https://www.shipoe.com/news/show-19859.html>.

TABLE 1

*Number of Research Papers on Arctic Topics Based on
International Cooperation with China*

	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
United States	1,082	1,130	1,176	1,275	1,367	1,474	1,472	1,434	1,523	11,933
Canada	728	718	748	788	776	872	862	931	977	7,400
Russia	388	364	536	550	746	851	1,114	1,092	1,124	6,765
Norway	535	519	553	668	680	760	763	765	816	6,059
United Kingdom	537	541	614	699	669	770	744	734	710	6,018
Germany	409	354	370	476	488	522	542	581	591	4,333
Denmark	196	206	243	256	248	320	271	316	336	2,392
Sweden	213	221	215	270	258	263	288	282	355	2,365
France	208	181	188	236	226	292	286	307	291	2,215
Finland	139	141	139	176	167	188	231	243	222	1,646
Japan	128	131	129	189	146	168	168	187	206	1,452
South Korea	63	81	96	84	97	121	121	113	163	939
Iceland	49	49	57	65	67	55	78	69	93	582

Source: Web of Science database, 2022.

They formally proposed the idea of joint cooperation in developing and using Arctic shipping routes to create the Polar Silk Road. In its 2018 Arctic white paper, China subsequently announced the idea of building this Silk Road with associated stakeholders. On June 5, 2019, the Chinese and Russian heads of state decided to upgrade bilateral relations to enter a “new era of China-Russia comprehensive strategic partnership of cooperation.”

The second reason is the trade war between China and the United States, which began in 2018 when then U.S. president Trump announced punitive tariffs of 25% on China’s goods. Meanwhile, in April 2018, China requested consultations with the United States concerning specific tariff measures on Chinese goods, which would allegedly be implemented through Section 301–310 of the U.S. Trade Act of 1974.¹⁵ The deterioration

¹⁵ World Trade Organization, “DS543: United States—Tariff Measures on Certain Goods from China,” Dispute Settlement https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds543_e.htm.

of trade relations has had spillover effects in all aspects of the bilateral relationship, including scientific cooperation and exchanges in the polar region. China-Canada relations likewise deteriorated swiftly after the U.S.-China trade war started, especially following the detention of Huawei chief financial officer Meng Wanzhou in Canada in December 2018.

In addition to the United States and Canada, however, Norway, Germany, and the United Kingdom have also all cooperated extensively with China. This cooperation is closely related to these countries' strengths in polar scientific research, their long polar presence, and their level of comprehensive national power. Sweden, Denmark, Finland, France, Japan, Iceland, and South Korea are also steadily increasing their scientific cooperation with China.

Conclusion: Implications of the Russia-Ukraine War for China's Arctic Interests

In March 2022, the Arctic 7 (the United States, Canada, Denmark, Finland, Iceland, Norway, and Sweden) issued a joint statement following Russia's invasion of Ukraine.¹⁶ All seven states condemned Russia's action and noted the grave impediments to international cooperation, including in the Arctic. Unlike during the Crimea crisis in 2014, when Iceland held the rotating chair of the Arctic Council and activities were carried out as usual, the current chair is held by Russia. The resistance of the seven Arctic states to Russia has thus brought the council to an unprecedented impasse. Given that China did not join the countries condemning Russia, and that the Chinese and Russian plans for the Polar Silk Road look to remain on track, at least for now, China may face severe obstacles in Arctic affairs. In light of these developments, it is worth considering what kind of impact such changes to the Arctic governance structure will have on China, and how China should respond.

Russia is the largest sovereign and coastal state in the region and has the most substantial Arctic infrastructure and military capabilities. These facts cannot be changed by political preferences, ideologies, and the choice of national leaders. A preliminary prediction is that, due to the complexity of Arctic governance and Russia's objective presence, it is doubtful that Russia

¹⁶ U.S. Department of State, "Joint Statement on Arctic Council Cooperation Following Russia's Invasion of Ukraine," Media Note, March 3, 2022, <https://www.state.gov/joint-statement-on-arctic-council-cooperation-following-russias-invasion-of-ukraine>.

will be directly “expelled” from the Arctic Council and other international organizations involved in the Arctic.

The Arctic is not the central region of war between Russia and Ukraine. When the conflict eases or when Norway takes over the chair of the Arctic Council in May 2023, the Arctic 7 should lower the tension in the Arctic region and refocus on international cooperation, especially in the “low political” areas of climate change, environmental protection, scientific research, and even infrastructure development.

China has always been pragmatic in its involvement in polar affairs. While maintaining strategic cooperation with Russia and keeping the Polar Silk Road on its established track, China should adopt a flexible, pragmatic, inclusive, proactive attitude in interacting with other Arctic countries in the current situation. That is, China should refrain from integrating its national position on the Russia-Ukraine war into its decision-making on Arctic affairs. The maintenance of an effective governance framework, including a well-operating Arctic Council, guarantees China’s smooth participation in Arctic affairs. In the face of the current complex situation in the region, China should work to promote the proper functioning of traditional and emerging governance mechanisms and institutions such as the Arctic Council, the International Arctic Science Committee, the Arctic Economic Council, and the Arctic Science Ministerial meeting.

In the long term, the escalation of Arctic military security issues and their negative impact on cooperation will be temporary. Climate change is a more fundamental issue. According to the latest scientific studies, the Arctic has warmed nearly four times as fast as the rest of the globe since 1979.¹⁷ Addressing the challenge of climate change in the Arctic requires joint action by all stakeholders in the international community. Opportunities often accompany challenges, and the opportunities for resource development and utilization in the Arctic brought about by global warming also provide the international community with chances for win-win cooperation. Even against the backdrop of geopolitical issues returning to the Arctic agenda, international cooperation is the only way forward, given the shared nature of Arctic challenges and the need for Arctic governance. Cooperation and dialogue thus will continue to move forward amid the political ups and downs. ◆

¹⁷ Mika Rantanen et al., “The Arctic Has Warmed Nearly Four Times Faster Than the Globe since 1979,” *Communications Earth and Environment* 3, 168 (2022) ~ <https://doi.org/10.1038/s43247-022-00498-3>.

An Arctic in Flux: Singapore's Perspective

Hema Nadarajah

Amid multiple global crises and conflicts, the often-cited concept of Arctic exceptionalism—the unique governance that has facilitated cooperation in the region—has come under strain.¹ A series of overlapping and multilayered geopolitical issues present challenges to Arctic governance, which is often assumed to be resistant to conflict elsewhere, and to cooperation, the “norm” of the region. From escalating tensions between the United States and China to Russia’s invasion of Ukraine to the ever-accelerating climate crisis, the Arctic is undeniably at a point of inflection. With the Arctic Council’s activities currently paused due to Russia’s invasion of Ukraine, concerns over the role of the council’s observer states, including Asian states Singapore, China, Japan, South Korea, and India, have been raised. However, despite this pause in the region’s preeminent high-level intergovernmental forum and the Covid-19 pandemic, not all activity in the high north has been frozen. States have remained active within the Arctic—observer states have continued to articulate official strategies and pay senior-level official visits to the region, while hopeful observers, such as Estonia, are advocating for admission to the Arctic Council.² It is clear that non-Arctic states’ interest in the polar region

HEMA NADARAJAH is a Post-Graduate Research Scholar with the Asia Pacific Foundation of Canada, a consultant for the World Wildlife Fund (WWF), and a Senior Fellow at Arctic360 (Canada). She can be reached at <hema.nadarajah@asiapacific.ca>.

¹ The concept of Arctic exceptionalism compartmentalizes Arctic governance and security by “detach[ing the region] from global political dynamics and thus characterizes [it] primarily as... an apolitical space of regional governance, functional co-operation, and peaceful co-existence.” See Juha Käpylä and Harri Mikkola, *On Arctic Exceptionalism: Critical Reflections in the Light of the Arctic*, FIIA Working Paper 85 (Helsinki: Finnish Institute of International Affairs, 2015). See also Gunhild Hoogensen Gjørøv and Kara K. Hodgson, “Arctic Exceptionalism’ or ‘Comprehensive Security’? Understanding Security in the Arctic,” *Arctic Yearbook* (2019); Marc Lanteigne, “Arctic Circle 2022: The Outside World Keeps Walking In,” *Over the Circle*, October 23, 2022 ~ <https://overthecircle.com/2022/10/23/arctic-circle-2022-the-world-keeps-sneaking-in/>; and Gabriella Gricus and Erin B. Fitz, “Can Exceptionalism Withstand Crises? An Evaluation of the Arctic Council’s Response to Climate Change and Russia’s War on Ukraine,” *Global Studies Quarterly* 2, no. 3 (2022).

² Ministry of Earth Sciences (India), “India’s Arctic Policy 2022,” March 2022 ~ <https://www.moes.gov.in/sites/default/files/2022-03/compressed-single-page-english.pdf>; “Visit by Senior Minister of State, Ministry of Foreign Affairs and Ministry of National Development, Sim Ann to Reykjavik, Iceland, 11 to 14 October 2022,” Ministry of Foreign Affairs (Singapore), Press Release, October 14, 2022 ~ <https://www.mfa.gov.sg/Newsroom/Press-Statements-Transcripts-and-Photos/2022/10/20221014-Iceland>; and Alar Karis, “Address by President Alar Klaris at the Arctic Circle Assembly,” Office of the President of the Republic (Estonia), October 13, 2022 ~ <https://president.ee/en/official-duties/speeches/54012>.

has not waned. This essay examines the Arctic interests and development of one such non-Arctic observer—Singapore.

Since its 2013 admission into the Arctic Council, Singapore has been referred to as the “unlikely candidate,” the “odd one out,” and an “Arctic novice.”³ It is, however, time to move beyond such a narrative for the nonregional observer states for several reasons. First, the status and the future of the Arctic Council itself are unclear and, at best, bifurcated. Russia’s invasion of Ukraine, which has gravely violated international law, has resulted in the other seven Arctic Council state members—Canada, the United States, Norway, Iceland, Sweden, Finland, and Denmark (now known as the A-7)—announcing their unanimous suspension of cooperation within the council.⁴ Second, nearly a decade has passed since the Asian states were admitted as observers.⁵ During this time, these states have made countless engagements with the region. Third, the concept of Arctic exceptionalism has come under increased scrutiny.⁶ The Arctic is not a discrete and isolated entity in international relations; what happens in the Arctic does not remain only in the Arctic, nor is the region unaffected by events elsewhere. Scholarship on the observer states needs to move beyond a perspective that questions their role in a compartmentalized region to one that examines their engagement in a globalized Arctic in flux.

The first section provides background on Arctic governance and context for Singapore’s progression to observer status in the Arctic Council. The second section assesses the state of the now indeterminate Arctic Council and Singaporean interests. In doing so, it postulates what the future of council observers might be and what a small state outside the high north can offer, given the current state of affairs in the Arctic. Finally, this essay concludes by assessing the necessity of an official Arctic policy and the path forward for tropical observer Singapore.

³ Richard A. Bitzinger, “Singapore: A Tangential but Constructive Player in the Arctic,” in *Handbook on Geopolitics and Security in the Arctic*, ed. Joachim Weber (Cham: Springer International Publishing, 2020), 159–67; Ian Storey, “The Arctic Novice: Singapore and the High North,” *Asia Policy* 18 (2014): 66–72; and Lanteigne, “The Odd One Out? Singapore in the Arctic,” *Over the Circle*, November 7, 2017 ~ <https://overthecircle.com/2017/11/07/the-odd-one-out-singapore-in-the-arctic>.

⁴ Timo Koivurova, “The Arctic Council Can Continue Without Russia,” *Arctic Today*, March 10, 2022 ~ <https://www.arctictoday.com/the-arctic-council-can-continue-without-russia>; and Barry Scott Zellen, “The World Needs the Arctic Council Now More Than Ever,” *Polar Connection*, April 20, 2022 ~ <https://polarconnection.org/world-needs-arctic-council>.

⁵ Other observer states include France, Germany, Italy, the Netherlands, Poland, Spain, Switzerland, and the United Kingdom. Several intergovernmental and nongovernmental organizations also have observer status.

⁶ Gricus and Fitz, “Can Exceptionalism Withstand Crises?”

Background: The Arctic and Singapore

Arctic governance. Aside from global treaties such as the United Nations Convention on the Law of the Sea (UNCLOS), the Arctic⁷ is governed regionally by the high-level intergovernmental Arctic Council, the five coastal Arctic states (the Arctic Five—Canada, Denmark, Norway, Russia, and the United States), and the Barents-Euro Arctic Council.⁸ One way to view the governance process is as concentric, expanding circles—the Arctic Five, the Arctic Five-Plus-Five (the Arctic Five with China, the European Union, Iceland, Japan, and South Korea), the newly formed A-7, the Arctic Council, and then Arctic Council with observers.⁹ In 2008 the Arctic Five agreed to continue to utilize the existing international law as outlined in UNCLOS for matters pertaining to the Arctic and decided against the need for a “new legal framework.”¹⁰ Some hard treaties, such as UNCLOS, the Polar Code, and the Montreal Protocol, govern the region but are not specific to it.¹¹ Other instruments are specific to the region, such as the Polar Bear Treaty, the Central Arctic Ocean Fisheries Agreement, and the Russia-Norway Boundary Treaty. Having initiated the negotiation of three soft treaties and adopted numerous other nonbinding soft-law instruments, the Arctic Council has established itself as an institution for soft governance in the region.¹² Soft law has since come to characterize the member states’


⁷ Centered on an ocean that spans about 5.4 million square miles, the Arctic connects (1) three continents (Asia, Europe, and North America), (2) the northern regions of eight sovereign states (Canada, Denmark [by way of Greenland], Finland, Iceland, Norway, Sweden, the United States, and Russia, and (3) Indigenous peoples represented by six Indigenous organizations (the Aleut International Association, Arctic Athabaskan Council, Gwich’in International Council, Inuit Circumpolar Council, Russian Association of Indigenous Peoples of the North, and the Saami Council). The entire region makes up about one-sixth of global landmass and is inhabited by over four million people.

⁸ Yoko Hirose, “International Cooperation in the Arctic Region: The Search and Rescue and the Barents Cooperation,” *Eurasian Journal of Social Sciences* 6, no. 4 (2018): 47; and “Ilulissat Declaration,” reprinted in Evan T. Bloom, “United States Directive on Arctic Policy and the Ilulissat Declaration,” *International Legal Materials* 48, no. 2 (2008): 382–83; and Camille Escudé, “The Strength of Flexibility: The Arctic Council in the Arctic Norm-Setting Process,” *Arctic Yearbook* (2016): 48–60.

⁹ Christopher R. Rossi has proposed that the Arctic Five states are a “club within a club.” See Christopher R. Rossi, “The Club within the Club: The Challenge of a Soft Law Framework in a Global Arctic Context,” *Polar Journal* 5, no. 1 (2015): 8–34.

¹⁰ Hirose, “International Cooperation in the Arctic Region,” 47; and “Ilulissat Declaration.”

¹¹ Edward T. Canuel, “The Four Arctic Law Pillars: A Legal Framework,” *Georgetown Journal of International Law* 46, no. 3 (2015): 735.

¹² The Arctic Council itself was created through the 1996 Ottawa Declaration, a nonbinding soft-law instrument. Arctic Council, “Declaration on the Establishment of the Ottawa Council,” September 19, 1996  https://oarchive.arctic-council.org/bitstream/handle/11374/85/EDOCS-1752-v2-ACMCA00-Ottawa_1996_Founding_Declaration.PDF.

approach to governance in the region,¹³ given that there is no equivalent to the Antarctic Treaty, a hard-law instrument. Observer states work on the periphery of these structures. While they are not allowed to negotiate agreements or participate in closed-door meetings, they can participate in working groups, fund projects, and serve as “multipliers for Arctic Council initiatives.”¹⁴ These states often use the legitimacy of their observer status in the Arctic to engage in regional activities beyond the council, expanding their presence.

Singapore. Singapore was admitted into the Arctic Council in 2013 alongside China, India, South Korea, Japan, and Italy. As a small island observer state, Singapore is unquestionably a unique entity within the Arctic sphere: it is approximately 140 times smaller than the smallest Arctic Council member state (Iceland) and is 7,000 kilometers away from the Arctic Circle in tropical Asia. And unlike the rest of the Asian observers, the city-state does not have a scientific or exploratory history in the Arctic. But regardless of the seeming strangeness of its presence, Singapore has built a reputation for upholding and advocating a robust international legal regime inside and outside the Arctic context.¹⁵ It has also managed to portray itself as a benign yet valuable member in its regional participation as well as in playing a pivotal role in translating solutions between regions and countries.

Since 2013, Singapore has promoted a two-pronged approach in the polar region: to assist in any way possible within the Arctic Council and the region itself, and to gain a better understanding of how changes in the Arctic may affect the island state. For Singapore, the key to being viewed as a benign actor has been its consistent trust-building and active engagement, not just in the years it spent advocating for admission to the council but also since its admission. In advocating for its admission as an observer state in the Arctic Council, Singapore actively engaged in Track 2 diplomacy and consistently demonstrated its commitment to participating in regional activities.¹⁶ The government appointed Ambassador Kemal Siddique as special envoy on Arctic affairs to lead the city-state’s campaign for observer status. Post-admission, Sam Tan, the current special envoy,

¹³ Malgorzata Smieszek, “The Arctic Council in Transition,” in *Leadership for the North*, ed. Douglas C. Nord (Cham: Springer Polar Sciences, 2019), 36.

¹⁴ Sebastian Knecht, “New Observers Queuing Up: Why the Arctic Council Should Expand—and Expel,” Arctic Institute, April 20, 2015 ~ <https://www.thearcticinstitute.org/new-observers-queuing-up>.

¹⁵ Hema Nadarajah, “How Has Singapore Been Legitimising Its Presence in the Arctic?” East Asia Forum, July 21, 2018 ~ <https://www.eastasiaforum.org/2018/07/21/how-has-singapore-been-legitimising-its-presence-in-the-arctic>.


¹⁶ Lanteigne, “Arctic Circle 2022.”

has visited the region, participated in events there, and worked to establish bilateral and multilateral ties within the council and outside of it. Singapore has also recognized that the Indigenous peoples of the Arctic are the region's key stakeholders, as they are most profoundly affected by changes in the region. It created the Singapore–Arctic Council Permanent Participants Cooperation Package, a customized technical cooperation package to enhance the human resource development and governance capacities of the Indigenous permanent participants. Singapore is one of the few observer states that has engaged constructively with the region's Indigenous peoples. Its benign yet active approach has been lauded by Arctic member states.

Additionally, Singapore has actively organized and participated in many events, not limited to those that fall within the ambit of the Arctic Council. Outside of the council, there are forums through which such events happen, and there have been numerous workshops, seminars, and exhibitions on the Arctic within Singapore itself. Within the Arctic, Singapore is involved in several forum, such as Arctic Frontiers in Norway and the Arctic Circle Assembly held in Iceland, which Singapore has participated in every year since the inaugural 2013 assembly.¹⁷ The main levers and considerations for Singapore when formulating bilateral policies are whether they add value economically, diplomatically, or environmentally. Singapore wants to be open, inclusive, and engaged, but it is mindful about the platforms through which these engagements are carried out. The country's admission as an Arctic Council observer has become a textbook example of its foreign policy acuity and ability to carve a niche out for itself.¹⁸ As a bridge builder—perhaps where it has performed most valuably on Arctic-related matters—beyond participating in the aforementioned forums, Singapore has, among other activities, facilitated workshops between Southeast Asian countries on energy accessibility and hosted a workshop in 2017 on Arctic migratory birds.

Singapore has shown a preference to work directly with the Arctic states rather than with the other observer states. It likely recognizes that it can maximize its interests in the Arctic by working directly with the member states, especially given the current fractured nature of the Arctic Council. Perhaps part of the reason for such an approach is that, unlike the other observer states, Singapore has less historical engagement with the region. It has been particularly active with Norway, Finland, Canada, and the

¹⁷ "Visit by Senior Minister of State."

¹⁸ "Full Speech: Five Core Principles of Singapore's Foreign Policy," *Straits Times*, July 17, 2017.  <https://www.straitstimes.com/singapore/five-core-principles-of-singapores-foreign-policy>.

United States, working with their embassies in Singapore and other venues to hold various events and workshops on the Arctic. Norway, for example, has been closely pursuing bilateral partnerships with Singapore since 2013, and Canada held a jointly organized event with Finland and Singapore in celebration of the former's 150th and the latter's 100th anniversary.¹⁹

The Future of the Arctic: What Value Can Singapore Add to an Arctic in Flux?

During the onset of the Covid-19 pandemic, most member and observer states naturally slowed their Arctic-related activities. Singapore was no different. It did continue, albeit less frequently, several virtual seminars and dialogues, such as a hybrid conference that was held during the “Norway-Singapore Science Week,” as well as a hybrid dialogue titled “The Arctic as a Global Transport Corridor: Sustainable Arctic Shipping” that was jointly organized in 2021 by the S. Rajaratnam School of International Studies and the Moscow School of Management, with support from Singapore's and Russia's Ministries of Foreign Affairs.²⁰ However, since Russia's invasion of Ukraine, the island state has imposed economic sanctions on Russia and has not co-organized any events with the country, which is the current Arctic Council chair.²¹ Going forward, however, Singapore can continue to add value to the Arctic in several ways.

Research and innovation. The Russia-Ukraine crisis is affecting science innovation and realigning research collaboration in the Arctic, particularly on climate science, creating widening gaps in research and development.²² Innovation has been central to Singapore's growth, especially given its highly advanced, open economy and its small geographic size. The country has repeatedly proposed research partnerships with Arctic stakeholders—not just on climate change but on issues ranging from tourism to port development. As Canadian experts Heather Exner-Pirot,

¹⁹ “Ice in the Tropics: A Canada 150–Finland 100–Singapore Arctic Collaboration, 9 November 2017” (event, National Museum of Singapore, Singapore, November 9, 2017) ~ <https://www.nhb.gov.sg/nationalmuseum/our-programmes/programmes-list/ice-in-the-tropics-singapore-arctic-collaboration>.

²⁰ “Special Envoy for Arctic Affairs Sam Tan's Participation in the Russia-Singapore Arctic Dialogue, 17 December 2021,” Ministry of Foreign Affairs (Singapore), Press Release, December 17, 2021 ~ <https://www.mfa.gov.sg/Newsroom/Press-Statements-Transcripts-and-Photos/2021/12/20211217-Russia-Singapore-Arctic-Dialogue>.

²¹ The chair of the (now paused) Arctic Council is held for two years by each member state on a rotating basis. Russia is the chair from 2021 to 2023.

²² Nisha Gaiind et al., “Seven Ways the War in Ukraine is Changing Global Science,” *Nature* 607 (2022) ~ <https://www.nature.com/articles/d41586-022-01960-0>.

Madeline Redfern, and Jessica Shadian have rightly highlighted, “the Canadian Arctic requires transportation and accompanying energy and telecommunications infrastructure with innovative technologies—ideally led by Indigenous businesses—that will not only help mitigate and adapt to further climate change but also create the means for building sustainable and prosperous Arctic communities. Such innovations will have global relevance and impact.”²³ Translating off-grid energy solutions, contributing to innovative port infrastructure development, and developing sustainable tourism are just some of the areas where observer states can contribute to the Arctic—and have already begun to do so.²⁴

Driving such partnerships for innovation at a bilateral level has been the bedrock of the science diplomacy approach utilized by Singapore. In mid-2022, a team of researchers from the Earth Observatory of Singapore at Nanyang Technological University visited Svalbard, Norway, to establish collaborative partnerships and tap into remote-sensing data to study climate impacts in the tropics. Such engagements bridge the gap not only between Singapore and the Arctic states but also between the larger Southeast Asian region and the high north.

Green transition. A recent Finnish government-commissioned report examining the impacts on the Arctic of Russia’s invasion of Ukraine emphasized the potential impacts on carrying out a green global transition. The report found that in the long term the invasion may accelerate Europe’s shift to green energy and practices, though the short-run effects may be more complex.²⁵ As countries attempt to race to a net-zero future to mitigate the effects of climate change everywhere, and as energy security becomes a defining geopolitical barometer, sustainable investment and innovation facilitating a green transition have become increasingly critical global concerns.

The Singapore Green Plan, highlighted by the Singaporean government at the 2022 Arctic Circle Assembly, similarly illustrates the importance of carrying out this green transition.²⁶ Singapore’s national sustainability plan

²³ Heather Exner-Pirot, Madeline Redfern, and Jessica Shadian, “Transformative Arctic Innovation is Possible—with Smart Investments,” *Inside Policy*, November 2, 2022 ~ <https://macdonaldlairier.ca/transformative-arctic-innovation-is-possible-with-smart-investments-exner-pirot-redfern-and-shadian-for-inside-policy>.

²⁴ For example, Keppel Offshore & Marine Technology has been advocating for constructing a floating hub in the Arctic to attract and facilitate tourism in the region. Arctic Frontiers (panel, Tromsø, January 20–25, 2019) ~ <https://www.arcticfrontiers.com/event/arctic-frontiers-2019-smart-arctic>.

²⁵ “Key Findings of Russian Aggression,” Arctic Centre, University of Lapland, October 11, 2022 ~ <https://www.arcticcentre.org/loader.aspx?id=dc19ee9b-6ede-4ffb-9611-0aa531bef0b7>.

²⁶ “Visit by Senior Minister of State.”

was implemented in early 2021, setting ambitious targets for integrating sustainability targets into societal activities. Academic institutions in Singapore have researched the environment and energy in the Arctic to better understand the implications of the climate crisis as well as to study off-grid energy solutions that can be translated between the Arctic and rural Southeast Asian communities.²⁷

Path dependency and small states. The activities of the six Arctic Council working groups, many of which result in soft-law instruments, provide an excellent example of path dependency for future cooperation.²⁸ The Arctic states have generally managed non-security regional issues on a cooperative basis through these working groups that are always focused on the next deliverable in terms of reports, assessments, and other soft-law instruments. Diplomats and experts are therefore on a perpetual hamster wheel of international interaction; cementing their conversations and findings into legal or formal documents legitimizes the effort to cooperate. Diplomacy is always taking place on the sidelines, and epistemic communities are continually being strengthened by interactions between diplomats, officials, scholars, and scientists, thus adding to the resilience of cooperation between governments. Therefore, consistent engagement in the various Arctic forums can create interdependence, build trust, and cushion cooperation to an extent, at least between Singapore and the A-7.

Political interventions by small states have proved to be effective in shifting the needle on some global issues, such as the climate crisis and law of the sea.²⁹ The Paris Agreement and the Agreement on Enhancing International Arctic Scientific Cooperation are two of many examples of soft treaties relevant to the Arctic that were reached as a compromise between entities of varying degrees of power within the international system. Countering the conventional argument in fields of international relations and international law that soft legalization favors the large and strong, and

²⁷ “Visit by Senior Minister of State.”

²⁸ The six working groups are the Arctic Contaminants Action Program; Arctic Monitoring and Assessment Programme; the Conservation of Arctic Flora and Fauna; Emergency Prevention, Preparedness and Response; the Protection of the Arctic Marine Environment; and the Sustainable Development Working Group. Observer states and organizations can attend working group meetings and participate in specific projects.

²⁹ Though the larger and more powerful states, such as the United States and China, had argued for a nonbinding instrument, the Paris Agreement’s binding nature can be attributed to the strong advocacy by the Alliance of Small Island States (AOSIS). The AOSIS held a strong position on the need for a legally binding instrument, thus proving the ability of smaller states to influence international law-making. See Peter Lawrence and Daryl Wong, “Soft Law in the Paris Climate Agreement: Strength or Weakness?” *Review of European, Comparative & International Environmental Law* 26, no. 3 (2017): 276–86.

that small states would be better off seeking hard legalization,³⁰ it has been demonstrated that, on the contrary, soft-law instruments are a useful tool for relatively weaker states. Though strong states do have a greater degree of influence during negotiations relative to weaker states, they cannot dictate every negotiation to their advantage largely due to the costs of coercion. Scholars Kenneth W. Abbott and Duncan Snidal have provided examples of how small states, such as Luxembourg, Nauru, and Singapore, have shaped international law.³¹ Soft governance could offer a means for small states to reduce existing power imbalances within the international system, help them project their own interests, and offer a counterweight to the changing power dynamics that resulted from new powerful states emerging within the international system.

Conclusion

To date, global warming alone will cause a 27-centimeter rise in sea levels—a result of the melting of a mere 3.3% of the total volume of Greenland's ice sheets.³² With almost a third of Singapore being less than five meters above sea level, a significant water-level rise from a warming Arctic poses an “existential” threat to the island state.³³

Singapore's consistently positive presence in the region over the past decade through various bilateral and organizational relationships at the Track 1 and 2 levels is reflective of its consistent effort during pre-pandemic and war periods. This approach has served Singapore well, given its strong adherence to an international order built on rules and norms. Although Singapore's Arctic interests and developments have not changed drastically, they have become far more refined. As Singapore continues to drive engagement in various multilateral platforms and deepen bilateral ties with the A-7, is it time for the government to formulate an official Arctic strategy, as some other observers have done? Instead of crafting a policy strategy,

³⁰ Kenneth W. Abbott and Duncan Snidal, “Hard and Soft Law in International Governance,” *International Organization* 54, no. 3 (2000): 421–56; and Prosper Weil “Towards Relative Normativity in International Law?” *American Journal of International Law* 77, no. 3 (1983): 413–42.

³¹ Isabel Feichtner, “Mining for Humanity in the Deep Sea and Outer Space: The Role of Small States and International Law in the Extraterritorial Expansion of Extraction,” *Leiden Journal of International Law* 32, no. 2 (2019): 255–74; and Danielle Yeow, “International Courts as a Counterweight to Power & Politics” (panel at American Society of International Law annual meeting, Washington, D.C., March 28, 2019) ≈ available at <https://www.youtube.com/watch?v=-z6ptyur9UY>.

³² Jason E. Box et al., “Greenland Ice Sheet Climate Disequilibrium and Committed Sea-Level Rise,” *Nature Climate Change* 12 (2022): 808–13.

³³ “Visit by Senior Minister of State.”

Singapore has been laying out its interests in multiple official speeches and in its submission reports to the Arctic Council. Perhaps now that Singapore has proved its value as an active Arctic Council observer and participant in various Arctic forums, the focus should be on how it can deepen its regional engagement against the backdrop of multiple reinforcing crises.

Finally, Singapore must continue to focus effort on working with the Indigenous people of the Arctic. The break between the A-7 and Russia after Russia's invasion of Ukraine has left the future of the Arctic Council in flux, and this suspension was carried out in the absence of consultations with the permanent participants.³⁴ The exclusion of these participants should not by any means change the policies and engagement of observer states such as Singapore. If anything, the observers should continue to deepen their work in the region by increasing consultations and collaboration with the permanent participants. If Singapore opts to refine its strategy in the Arctic, it should ensure that the bedrock of its regional policy is focused on Indigenous inclusion and consultations beyond the Singapore Cooperation Programme. In the words of Greenland's prime minister, Múte Egede, "Nothing about us—without us."³⁵ ♦

³⁴ Barry Scott Zellen, "The Arctic Council Pause: The Importance of Indigenous Participation and the Ottawa Declaration," Arctic Circle Assembly, June 14, 2022 ~ <https://www.arcticcircle.org/journal/the-importance-of-indigenous-participation-and-the-ottawa-declaration>.

³⁵ Múte B. Egede. "Historic Speech by the Prime Minister of Greenland," available at Arctic Circle Assembly, September 13, 2022 ~ <https://www.arcticcircle.org/journal/opening-speech-at-the-arctic-circle-greenland-forum>.