

The North East Asian States’ Interests in the Arctic and Possible Cooperation with the Kingdom of Denmark

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This study was commissioned by the Danish Ministry of Foreign Affairs as part of the follow-up and implementation of the Arctic Strategy of the Kingdom of Denmark. The study's intention is to provide a deep and nuanced understanding of the Arctic interests of the three North East Asian countries—China, Japan and the Republic of Korea (South Korea)—and the potential for cooperation between these countries and the Kingdom of Denmark.

The study was undertaken by the Arctic research team of Stockholm International Peace Research Institute (SIPRI). In the first stage of the project, the research team examined each of the three North East Asian countries' open source literature—including government documents, government statements, scholarly articles and media reports—pertaining to the country's Arctic interests. In most cases, the relevant literature is available only in Chinese, Korean or Japanese. Next, the team conducted research interviews with individuals working on Arctic issues in Beijing, Shanghai, Seoul, Incheon and Tokyo. These research interviewees include government officials, representatives of the corporate sector, scientists, foreign and security policy specialists, journalists, diplomats of other Nordic countries, and representatives of the Danish Embassies in Beijing, Seoul and Tokyo.

The report is the result of a joint effort by the SIPRI research team. The final outcome was co-authored by Linda Jakobson and Seong-hyon Lee, with assistance from Joel Wing-Lun, Christian Jack, Harrison Palmer and Jingchao Peng.

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Summary

Changes in the Arctic region give rise to new opportunities but also bring challenges for Arctic states and for the broader international community. The melting Arctic ice has multiple global consequences—the emergence of new sea lanes through Arctic waters is the one which will become reality the soonest. No country dependent on foreign trade can ignore the possibility that at some stage during the 2020s maritime traffic could increase substantially along the Arctic sea routes. As the Arctic Strategy of the Kingdom of Denmark states: ‘more countries will want to gain insight into and influence on international cooperation in the Arctic as its strategic, economic and energy-related potential becomes clearer’.

Interest in the Arctic among non-Arctic states has increased dramatically, including in the North East Asian countries China, Japan and South Korea. Each of these countries has applied for permanent observer status at the Arctic Council and is seeking partners among Arctic littoral states to deepen Arctic cooperation.

China

Over the past five years, the Chinese Government has paid increasing attention to the Arctic and taken steps to protect what it perceives as its key interests in the region. These are, first, to strengthen its capacity to prepare appropriate responses to the effects that climatic changes in the Arctic will have on food production and extreme weather in China; second, to secure access at reasonable cost to Arctic shipping routes; and third, to strengthen China’s ability as a non-Arctic state to access resources and fishing waters.

An underlying, but unstated motive, behind China’s increasing Arctic activities is its desire to exert influence as a rising major power. Yet China’s Arctic policies are still very much a work in progress and the Arctic is not presently a priority of China’s foreign policy officials. If the Arctic was a priority for China, it would not have upheld punitive measures against Norway, a leading Arctic state, for more than two years.

China presumably hopes that by gaining permanent observer status at the Arctic Council it will gradually be able to influence the decision-making processes of the Council and to gain more clout within the region. While refraining from public commentary, Chinese officials have privately criticized the 2011 criteria stipulating that new permanent observers must demonstrate ‘political willingness’ to work with permanent members and ‘recognize Arctic states’ sovereignty, sovereign rights and jurisdiction in the Arctic’.

For now, Chinese officials are making a concerted effort to focus on avoiding contentious issues, such as resource exploration and development and sovereignty claims. By advocating a focus on climate change, Chinese scholars strive to circumvent the sensitivity of Arctic resources and sovereignty issues, and to calm concerns about China as a rising power. Climate change cooperation also provides China with opportunities to partner with other states on the Arctic agenda.

Japan

Japan began to explore the commercial potential of the Arctic in the 1990s, well before its North East Asian neighbours, yet lack of interest from Japan’s commercial sector has limited the development of Tokyo’s Arctic policy. The Japanese business community is

only now beginning to seriously consider the potential opportunities of an ice-free Arctic and a NSR for maritime transportation.

Japan is concerned that increased commercial activities and a rush for Arctic resources will be accompanied by an increased military presence, including naval operations, around its northern waters. As a result of Russia's expansion of its Arctic military operations and the increase of China's and South Korea's resources to their respective polar research programmes, Japan is considering the strategic implications of the changing Arctic environment.

Like China and South Korea, official Japanese Government documents tend to highlight scientific research objectives while downplaying their interest in natural resources, shipping, and governance regimes as it seeks permanent observer status at the Arctic Council. While Chinese Government officials have publicly claimed that China is an 'Arctic stakeholder', the Japanese Government has employed a more modest rhetoric of 'participation'. While careful not to question the existing regime in public, Japan, like other non-Arctic states, would like to see the Arctic Council recognize the interests of non-Arctic states and that the Arctic is part of the common heritage of humankind. Japan's sees the United States, its close ally, as a likely partner in Arctic affairs.

South Korea

South Korea's interests in the Arctic are concerned with the perceived economic potential for shipping and resources in the region. South Korea is a resource-poor state heavily reliant on energy imports and with a significant proportion of its GDP made up of exports. It is also the world's largest ship builder. South Korean industry and officials see medium- and long-term potential in Arctic resources and a Northern Sea Route (NSR). South Korea is also concerned with raising its international profile, particularly in the area of green growth and climate change—a political priority in the country.

Since taking office in February 2013, South Korean President Park Geun-hye has elevated Arctic affairs to a national priority by designating Arctic Council permanent observer status among '140 national agenda tasks' for her presidency. Like both China and Japan, South Korea believes that permanent observer status is an important step in gaining influence in Arctic affairs. It hopes to participate in Arctic governance and that the Arctic Council will take a more open attitude towards non-Arctic states.

South Korea maintains cooperative relations with the Arctic littoral states, and has begun exporting icebreakers to Russia for commercial use. The Green Growth Alliance between South Korea and the Kingdom of Denmark and the visit in 2012 of Greenlandic prime minister Kuupik Kleist have boosted awareness of the Kingdom of Denmark in South Korea.

Potential for cooperation

China, Japan and South Korea each stands to benefit enormously from shorter commercial shipping routes and possible access to new fishing grounds and other natural resources. A unified Arctic strategy would be in their mutual interest; finding ways to jointly use an ice-free Arctic has the potential to create a genuine win-win situation for North East Asian states. Yet historical grievances, ongoing territorial disputes, and deep suspicions are all substantial obstacles to cooperation. There has been more cooperation between China and South Korea on Arctic affairs than between China and Japan.

The increased interest in the Arctic of North East Asian countries presents numerous opportunities for the Kingdom of Denmark. The Kingdom of Denmark should take advantage of converging interests in Arctic affairs to develop a special Arctic relationship with the three North East Asian countries.

Abbreviations

AERC	Arctic Environmental Research Center (Japan)
AFOPS	Asian Forum for Polar Sciences
CAA	Chinese Arctic and Antarctic Administration
CACPR	Chinese Advisory Committee for Polar Research
CAS	Chinese Academy of Science
CIMA	China Institute for Marine Affairs
CMS	China Maritime Surveillance
COSCO	China Offshore Shipping Corporation
CPC	Communist Party of China
EEZ	Exclusive Economic Zones
EU	European Union
GDP	Gross domestic product
KHOA	Korea Hydrographic Oceanographic Administration
KIOST	Korean Institute of Ocean Science and Technology
KMI	Korea Maritime Institute
KOPRI	Korea Polar Research Institute
KORDI	Korea Ocean Research and Development Institute
ILTS	Institute of Low Temperature Science (Japan)
JAMSTEC	Japan Agency for Marine-Earth Science and Technology
JAXA	Japan Aerospace Exploration Agency
JCAR	Japan Consortium for Arctic Environmental Research
JIIA	Japan Institute of International Affairs
JOGMEG	Japan Oil, Gas and Metals National Corporation
LNG	liquefied natural gas
MEST	Ministry of Education, Science and Technology (South Korea)
MEXT	Ministry of Education, Culture, Sports, Science, and Technology (Japan)
MFA	Ministry of Foreign Affairs (China)
MKE	Ministry of Knowledge Economy (South Korea)
MIEP	International Institute of Energy Politics and Diplomacy
MLIT	Ministry of Land, Infrastructure, Transport and Tourism (Japan)
MLR	Ministry of Land and Resources (China)
MLTMA	Ministry of Land, Transport and Maritime Affairs (South Korea)
MOD	Ministry of Defence (Japan)
MOE	Ministry of Environment (South Korea)
MOFA	Ministry of Foreign Affairs (Japan)
MOFAT	Ministry of Foreign Affairs and Trade (South Korea)
MOMAF	Ministry of Maritime Affairs and Fisheries (South Korea)
MOT	Ministry of Transport (China)
NDRC	National Development and Reform Commission (China)
NIPR	National Institute for Polar Research (Japan)
NSR	Northern Sea Route
NYK	Nippon Yusen Kaisha

OECD	Organisation for Economic Co-operation and Development
OPRF	Ocean Policy Research Foundation (Japan)
OUC	Ocean University of China
PLA	People's Liberation Army
PRIC	Polar Research Institute of China
Rannís	Icelandic Center for Research
SIIS	Shanghai Institutes of International Studies
SIPRI	Stockholm International Peace Research Institute
SOA	State Oceanic Administration (China)
UNCLOS	United Nations Convention on the Law of the Sea

1. Introduction

Changes in the Arctic region are giving rise to new opportunities but also bringing about challenges for Arctic states and for the broader international community. The prospect of new sea lanes opening as a result of the melting of Arctic ice has multiple global consequences. The world's maritime transport system is, after all, a key pillar and driver of globalization. No country dependent on foreign trade can ignore the possibility that at some stage during the 2020s maritime traffic along the Arctic sea routes could increase substantially.

According to World Meteorological Organization estimates, the Arctic sea ice reached its lowest annual level during September 2012 and is shrinking on average 91 600 square kilometres per year.¹ This decrease in surface area has been accompanied by a reduction in the thickness of the ice, leading to predictions of 'ice-free summers' in the Arctic.² Recent estimates predict a 2020–40 timeframe for an Arctic free of ice during the three summer months.³

The Northern Sea Route (NSR) across the northern coast of Russia is expected to become commercially viable before the Northwest Passage through the Canadian archipelago because the ice is receding more quickly off Siberia than the average across the Arctic. This has direct relevance for North East Asian countries, all of which have flourishing trade ties with Europe.

The opening up of the Arctic will also provide access to new reserves of energy and other natural resources. In 2008 the US Geological Survey estimated that the Arctic contains up to 30 per cent of the world's undiscovered gas and 13 per cent of the world's undiscovered oil resources.⁴ Over 84 per cent of these resources are thought to be located within the offshore Exclusive Economic Zones (EEZ) and continental shelves of littoral states. The shelves of the United States, Canada and Greenland are the likeliest to hold oil, while Russia's and Norway's shelves have the best prospects for gas.⁵ Additionally, the region contains vast amounts of coal, nickel, copper, tungsten, lead, zinc, gold, silver, diamonds, manganese, chromium and titanium.

There are, of course, tremendous obstacles to overcome in the Arctic, such as extremely harsh operating conditions, before shipping or serious resource exploration can become a reality. Nevertheless, when one takes into account skyrocketing insurance premiums caused by piracy and potential political instability along the existing route through the Suez Canal, one must presume that concerted efforts will be made by both governments and commercial actors to deal with the challenges to ensure that shipping via the Arctic is

¹ Perovich, D. et al., 'Sea Ice', *Arctic report card: update for 2012*, 3 Dec. 2012, <http://www.arctic.noaa.gov/reportcard/sea_ice.html>.

² Meier, W. N. et al. 'Sea Ice', *Snow, Water, Ice and Permafrost in the Arctic: climate change and the cryosphere*, eds. Olsen, Morten S. et al., Arctic Monitoring and Assessment Programme, 2011, Oslo, Norway, <<http://amap.no/swipa/>>.

³ Astill, J., 'The melting north', *The Economist*, 16 June 2012, <<http://www.economist.com/node/21556798>>; and Gillis, J., 'Ending its summer melt, Arctic sea ice sets a new low that leads to warnings', *New York Times*, 19 Sep. 2012, <http://www.nytimes.com/2012/09/20/science/earth/arctic-sea-ice-stops-melting-but-new-record-low-is-set.html?_r=0>. For more recent estimates, see Chapter 9, Meier, W. N. et al. 2011, p. 17–18; and National Oceanic and Atmospheric Administration, 'Sea ice: will the Arctic be free of ice in 30 years?', *The Future of Arctic Climate and Global Impacts*, Accessed 11 Feb. 2013, <http://www.arctic.noaa.gov/future/sea_ice.html>; see also Danish Ministry of Foreign Affairs, 'Kingdom of Denmark Strategy for the Arctic 2011–2020', Aug. 2011, Copenhagen, Denmark, p. 44.

⁴ Gautier, D. et al., 'Assessment of undiscovered oil and gas in the Arctic', *Science*, 29 May 2009.

⁵ 'Hidden Treasure', *The Economist*, 16 June 2012, <<http://www.economist.com/node/21556800>>

at least a feasible alternative. In the same vein, a growing need around the globe for dwindling natural resources can be expected to propel technological innovation to facilitate resource exploration despite the Arctic's extreme conditions.

Shipping and resource exploration, in turn, will put tremendous pressure on the environment and create challenges for the indigenous people living within the Arctic Circle. As the Arctic Strategy of the Kingdom of Denmark states: 'more countries will want to gain insight into and influence on international cooperation in the Arctic as its strategic, economic and energy-related potential becomes clearer'.⁶

Existing governance structures will undoubtedly come under scrutiny. Recent developments in the Arctic region highlight the need for a common set of rules and norms for all Arctic and non-littoral states engaging in Arctic-related activities. These rules and norms are essential to avoid geopolitical tensions and also to ensure the economic benefits stemming from the region's commercial opening and activities flow into local communities.

In sum, the Arctic has become part of a complex set of political and economic dynamics linking actors within and across the Arctic with those outside the region.⁷ Among non-Arctic states, interest in the Arctic has increased dramatically—particularly in China. This report's goal is to provide an in-depth analysis of the drivers of the interests of China, Japan and the Republic of Korea (South Korea) in the Arctic. For each of the three countries, it also provides an overview of the actors involved in Arctic affairs as well as of Arctic policies approved or being contemplated in each of the countries. The report concludes with an assessment of the areas of strong convergence of interest between the Kingdom of Denmark and the North East Asian countries, including specific recommendations on how to strengthen Arctic cooperation between the Kingdom of Denmark and the North East Asian states.

⁶ Danish Ministry of Foreign Affairs, 2011, p. 55.

⁷ For an insightful overview of the geopolitics evolving in the Arctic with regard to the Northern Sea Route, see e.g. Blunden, M., 'Geopolitics and the Northern Sea Route', *International Affairs*, 88: 1, 2012.

2. The Arctic activities and policies of China

Summary

China's interest in the Arctic region has grown significantly over the past five years. Despite being a non-littoral state, Chinese officials believe that the Arctic's melting ice presents both challenges and opportunities for the country's economic growth. On the one hand, climate changes brought about by the melting Arctic ice have been linked to extreme changes in weather patterns in China and have adversely affected parts of the country's agricultural industry. On the other hand, the Arctic's opening seas, especially during summer months, potentially offer China's shipping industry shorter routes to markets in Europe and possibly even North America. They also present China with the opportunity to access mineral and energy deposits buried in the Arctic seabed. Moreover, Chinese officials are aware that geostrategic tensions could intensify, as littoral and non-littoral states seek to take advantage of opportunities in the Arctic region.

As a non-littoral state, China's influence in decision-making forums in the region, in particular the Arctic Council, remains weak. However, China's insistence on respect for state sovereignty in territorial disputes in its near waters can be expected to deter China from challenging the principles of sovereignty in the Arctic region. Instead, Chinese specialists emphasize that the Arctic is a 'treasure of humankind' and a 'global challenge' (rather than a regional one), to reinforce the notion that littoral and non-littoral states are all affected by the changes underway in the Arctic and hence all states have a stake in the governance of the Arctic. China is also strengthening its scientific activities in the region and conducting joint research projects with several littoral states in an effort to bolster its Arctic capabilities.

China is seeking permanent observer status in the Arctic Council, as it wants to ensure that it will continue to be included in discussions pertaining to the Arctic. Presumably, China also hopes that over time permanent observers will have more influence on the Arctic Council's decisions. A new term used by Chinese scholars to refer to China as a 'near-Arctic' state reinforces this presumption.

Drivers of China's Arctic interests

If one had to pinpoint one event that sparked China's geopolitical interest in the Arctic it would be Russia's decision in 2007 to deploy a nuclear submarine to the North Pole to plant a Russian flag on the seabed. Before this event, few Chinese people outside the natural sciences and environmental studies spheres paid attention to the Arctic. Since then, a gradual awakening has taken place among Chinese Government officials and social science researchers of the need to prepare for the day when the Arctic's sea lanes will be readily accessible to vessels, at least during the summer season.

As a result of this growing awareness, over the past five years the Chinese Government has taken steps to protect what it perceives as its key interests in the Arctic. These are, first, to strengthen its capacity to prepare appropriate responses to the effects that climatic changes in the Arctic will have on food production and extreme weather in China; second, to secure access at reasonable cost to Arctic shipping routes; and third, to strengthen China's ability as a non-Arctic state to access resources and fishing waters.

In order to better understand the effects of climate change, the Chinese Government has increased the funding of polar research and polar expeditions. A second Chinese polar

research icebreaker is expected to be operational in 2014, enabling China to simultaneously conduct polar expeditions to the Antarctic and Arctic, if it chooses to do so. It is important to note that the Antarctic is the main focus of China's polar research and this emphasis is expected to continue. Only about one-fifth of the government's polar resources are devoted to Arctic expeditions.⁸ China has undertaken 28 expeditions to the Antarctic, but only five to the Arctic.

While Chinese industry representatives have taken few concrete measures to prepare for the emergence of new commercial shipping routes, the Chinese Government has provided funding to strengthen Arctic expertise in the academic community. Before 2007, very few Chinese scholars in the social sciences paid attention to the Arctic, whereas now there are a growing number of Chinese experts in the disciplines of international maritime law, logistics, resources and international politics, who specifically focus on the Arctic in their research and publications. China has also submitted an application to become a permanent observer at the Arctic Council. Chinese diplomats have lobbied hard to secure this status at the May 2013 Arctic Council ministerial meeting (which is discussed in more detail below).

The overriding motive behind China's desire to understand the implications of a melting Arctic and strengthen its influence in Arctic affairs relates to economic growth. China's most important concerns relate to how the country can benefit from the economic opportunities borne by the warming of the Arctic and how a warming Arctic will adversely affect its economy. In all analysis of the Chinese Government's policies it is worthwhile to bear in mind that the foremost, publicly stated goal of the Communist Party of China (CPC) is to maintain political stability; this means keeping the CPC in power and the socialist system intact. In turn, economic growth and development is identified as the foundation of political stability.

There is a consensus among Chinese scientists that the climate changes in the Arctic influence China's climatic conditions, its ecosystem and, subsequently, its agriculture. In addition, the transforming Arctic environment poses flood threats to Chinese coastal cities and is regarded as one of the causes of extreme weather. According to Ma Deyi, who worked as chief scientist on China's fifth Arctic expedition in 2012, research shows that the increase of melting ice in September 2007, which at the time set a new record, caused an unusually harsh storm in southern China with freezing temperatures in early 2008.⁹ Scores of people died and hundreds of thousands of passengers were stranded following a breakdown in the railway system during the busy Spring Festival travel period. This kind of storm has the potential to cause social unrest in the event that China's authorities were perceived as incapable of effectively managing rescue efforts.

An underlying, but unstated, motive behind China's increasing Arctic activities is its desire to exert influence as a rising major power. However, media reports that describe China's Arctic actions as 'assertive' should be read with caution—in reality, China's Arctic policies are still a work in progress.¹⁰ The Arctic is not presently a priority of China's foreign policy officials.

⁸ Brady, A.-M., 'Polar stakes: China's polar activities as a benchmark for intentions', *China Brief*, vol. 12, no. 14 (19 July 2012).

⁹ 半岛都市报 [Peninsular City News], <http://www.cma.gov.cn/2011xwzx/2011xqhbh/2011xdtxx/201207/t20120703_177492.html>. Ma Deyi works at the No.1 Oceanic Research Institute under the State Oceanic Administration.

¹⁰ Perreault, F., 'Can China become a major Arctic player?', *RSIS Commentaries*, no. 073/2012 (24 Apr. 2012), <<http://www.rsis.edu.sg/publications/commentaries.asp?selYear=2012>>. See also Campbell, C., 'China and the Arctic:

China's 'going out' strategy

Given the resource deposits in the Arctic and the managerial and technological expertise required to operate in the region's harsh conditions, China's interest in the Arctic may be viewed in the framework of the government's broader 'going out' strategy. Since the late 1990s, the Chinese Government has encouraged both public and private sector enterprises to invest overseas in an effort to acquire advanced technology; to gain managerial and international experience; secure access to resources and commodities; and to secure a foothold in overseas markets for Chinese exports.¹¹

The policy's goal is to improve the international competitiveness of Chinese enterprises and—through acquisitions, joint ventures and equity holdings in foreign companies—to ensure stable and continuous access to the resources required to fuel China's economic growth. The policy is facilitated by China's vast foreign exchange reserves accumulated by the country's economic integration into the world economy over the past several decades.

China's Arctic actors

The Chinese Government handles Arctic and Antarctic matters jointly as polar affairs. The State Oceanic Administration (SOA) is the key government body responsible for polar affairs in all spheres, from scientific research to strategic issues.¹² Under the SOA, the office of Chinese Arctic and Antarctic Administration (CAA) directly manages polar affairs and is administratively responsible for China's polar expeditions.¹³ The CAA has a staff of about 40 people. The Polar Research Institute of China (PRIC) also falls under the administrative purview of SOA.

The SOA is a second-tier agency, one tier below a ministry—it reports administratively to the Ministry of Land and Resources (MLR). Within the MLR, the Department of Geological Exploration is responsible for overseeing China's potential energy resources investigation, including ocean resources. However, the department is yet to start substantial research on this issue.

The SOA's mandate includes overseeing maritime activities. It also drafts China's ocean-related laws and regulations and facilitates China's participation in international maritime laws and treaties.¹⁴ In recent years the political standing of the SOA has risen in tandem with the growing significance of the maritime domain for China's development. The SOA's maritime law enforcement agency, China Maritime Surveillance (CMS), is one of the fleets that has been assigned to patrol disputed waters in the seas surrounding China and has consequently been involved in several international maritime incidents.¹⁵

Following China's public declaration at the CPC 18th Party Congress in late 2012 that its goal is to become a maritime power, the SOA's status can be expected to continue to rise. Interestingly, this goal was included in the 18th Party Congress work report's section on

objectives and obstacles', US-China Economic and Security Review Commission Staff Research Report, Apr. 2012, <http://www.uscc.gov/researchpapers/2012/China-and-the-Arctic_Apr2012.pdf>.

¹¹ '更好地实施"走出去"战略' [Improving the implementation of the 'going out' strategy], Central People's Government of the People's Republic of China, 15 Mar. 2006, <http://www.gov.cn/node_11140/2006-03/15/content_227686.htm>

¹² Qu, T. et al. (eds), 北极问题研究 [Research on Arctic issues] (Ocean Press: Beijing, June 2011), p. 364.

¹³ Chinese Arctic and Antarctic Administration website, <<http://www.chinare.gov.cn/en/>>.

¹⁴ '国家海洋局主要职责' [Primary responsibilities of State Oceanic Administration], State Oceanic Administration website, <<http://www.soa.gov.cn/soa/governmentaffairs/overview/zhuyaozhineng/webinfo/2010/04/1270102487344747.htm>>.

¹⁵ '中国海监总队' [China's maritime surveillance corps], State Oceanic Administration website, <<http://www.soa.gov.cn/soa/governmentaffairs/overview/jigoushezhi/jsdw/webinfo/2007/03/1271382671424901.htm>>.

'ecological progress,' not the section on international relations.¹⁶ In March 2013 several maritime law enforcement agencies were placed under the authority of the SOA, further strengthening its power.¹⁷

China's polar activities are funded by several ministries and agencies administered by the State Council—China's highest governmental body to which the Communist Party entrusts day-to-day administration of the country. For example, the decision in 2011 to build a new icebreaker was made by the State Council. The new icebreaker's construction plan then had to be endorsed by the National Development and Reform Commission (NDRC), a powerful ministry-level entity whose prime mandate is economic development, in consultation with the Ministry of Finance.¹⁸

The NDRC's role is to endorse key state construction projects on behalf of the State Council; only projects that fall outside of the state plan need endorsement from the NDRC to receive state funding. For example, the plan for a third research station in the Antarctic required special NDRC approval before it could receive funding. Given the large number of projects in need of NDRC consideration and approval, the SOA has to engage in extensive lobbying within the NDRC in order to receive funds for its projects.

The Ministry of Transport (MOT) oversees and regulates China's domestic and international shipping industry. The Shipping Department of the MOT directly administers China's shipping ports, routes and other facilities and is in charge of China's international shipping cooperation.¹⁹ The MOT affirmed a commitment to 'strengthening international cooperation on Arctic shipping' in 2013.²⁰ According to an off-the-record discussion with a MOT official, the MOT in 2012 initiated a preliminary feasibility study into the Northern Sea Route.²¹ The MOT will presumably take a lead role in facilitating Chinese commercial shipping in the Arctic, including a pilot voyage which is planned for the summer of 2013. In addition, the China Classification Society, administered by the MOT, handles classification of Chinese ships navigating the polar regions. The society's specialists are represented in the task force responsible for China's new icebreaker.²²

The Ministry of Science and Technology and the National Natural Science Administration, a second-tier State Council agency, provide financial support for Arctic scientific research and participate in the approval of scientific research projects.²³ The Ministry of Environmental Protection implements international cooperation between China and Arctic states in the fields of climate change and environmental protection.

The Chinese Advisory Committee for Polar Research (CACPR) serves as an important governmental coordinating body on polar issues. The CACPR is comprised of experts from 13 Chinese ministries or bureaus under the State Council and the General Political

¹⁶ Hu, J., 'Full text of Hu Jintao's report at 18th Party Congress', Section VIII, *Xinhua*, 18 Nov. 2012, <http://news.xinhuanet.com/english/bilingual/2012-11/18/c_131982275_9.htm>

¹⁷ Xu, Y., Xu, X. and Ma, Y., '中国将重组国家海洋局 从顶层设计为"海洋强国"保驾护航' [China will restructure the State Oceanic Administration, protecting China's 'maritime power' from the top], *Xinhua*, 10 Mar. 2013, <http://news.xinhuanet.com/2013lh/2013-03/10/c_114969293.htm> .

¹⁸ Cui, J., '我国将建世界领先的极地科考破冰船' [China is going to build the world's top polar expedition icebreaker], *Zhongguo Haiyang Bao*, 2 Aug. 2011.

¹⁹ See the Ministry of Transport website, <<http://www.mot.gov.cn/zizhan/siju/shuiyunsu/jigouzhineng/>>.

²⁰ '全国交通运输工作会议提出2013年交通运输八项主要工作' [Eight important transport work items for 2013 from the National Transportation Work Conference], Ministry of Transport, 6 Jan. 2013, <http://www.mot.gov.cn/st2010/shanxi/sx_jiaotongxw/jtxw_wenzibd/201301/t20130106_1349044.html>.

²¹ Authors' correspondence with an MOT official, 5 Apr. 2013.

²² 'CCS主持召开新极地科考船基本设计阶段四方启动会', [CCS chairs four-party meeting on the basic design of new polar research vessel], China Classification Society, 21 Aug. 2012, <<http://www.ccs.org.cn/ccswz/font/fontAction!article.do?articleId=ff8080813928f067013948654c5c007f>>.

²³ Qu, T. et al. 2011, p. 365.

Department of the People Liberation Army (PLA).²⁴ With the exception of studies carried out in PLA-administered research institutions, it is not known whether the PLA has a role in China's other Arctic activities.²⁵

The Ministry of Foreign Affairs (MFA) is the lead organization on issues regarding Chinese international Arctic cooperation.²⁶ Within the MFA, the Department of Law and Treaty prepares statements on Chinese official position on the Arctic, coordinates Chinese representation at Arctic Council ministerial meetings, and is the Chinese counterpart in bilateral and multilateral engagement between China and other states, both Arctic and non-Arctic.²⁷ Within the MFA, an assistant foreign minister is the highest-ranking official to address Arctic issues. Former Assistant Foreign Minister Liu Zhenmin and his predecessor, Hu Zhengyue, each made a 'High North Study Tour' to Norway, in 2009 and 2010, respectively. While in Norway, they both publicly articulated China's views on what the government perceives as China's rights in the Arctic.²⁸ Lower-ranking officials have represented China in its capacity as an ad hoc observer at the 2007, 2009 and 2011 Arctic Council ministerial meetings.

Research institutions

The task of Chinese research institutions and individual academics is to help policymakers understand polar issues from their specialized perspectives and to provide advice in the form of policy recommendations.

Polar Research Institute of China. China's principal research institution focusing solely on polar affairs is the Polar Research Institute of China (PRIC), governed by the SOA. The PRIC links Chinese policymakers with academia, and is responsible for China's polar expeditions, China's research stations in the Arctic and the Antarctic, and the icebreaker *Xuelong*.²⁹ In mid-2009 the PRIC established an Arctic strategic research department, headed by Zhang Xia, one of the first Chinese specialists to publish on Arctic geopolitics.³⁰

Shanghai Institute of International Studies. The Shanghai Institutes of International Studies (SIIS) is one of the most prestigious Chinese research institutions of international affairs. Within SIIS, researchers from the Center for Marine and Polar Affairs, the Center for Global Governance Studies, and the Center for Russia and Central Asia Studies are currently working on government-sponsored projects on global governance in the Arctic,

²⁴ The 13 State Council agencies are Ministry of Foreign Affairs; National Development and Reform Commission; Ministry of Education; Ministry of Science and Technology; Ministry of Industry and Information Technology; Ministry of Finance; Ministry of Land and Resource; Ministry of Health; Chinese Academy of Science; China Earthquake Administration; China Meteorological Administration; National Natural Science Foundation of China; and National Administration of Surveying, Mapping and Geoinformation. Qu, T. et al., p. 365.

²⁵ See e.g. Yin, D., '解决北极争端的法律机制分析' [Legal mechanisms to resolve Arctic disputes], *Haiyang Kaifa yu Guanli*, vol. 26, no. 9 (2009), pp. 11–16. The author, Yin Danyang, is from PLA Dalian Naval Academy.

²⁶ Qu, T. et al., 2011, p. 365.

²⁷ Ministry of Foreign Affairs official, interview with authors, Beijing, 29 Oct. 2011.

²⁸ There are 6 vice-ministers who report to the foreign minister and 4 assistant ministers who rank below the vice-ministers but above the department chiefs. For Hu's and Liu's speeches see Ning, X., '地球未来的缩影—外交部部长助理谈北极研究之旅' [A microcosm of the world's future—Assistant Minister of Foreign Affairs talks about 'High North Study Tour'], *Shijie Bolan*, vol. 349, no. 19 (2009), p. 58; and Ministry of Foreign Affairs, 'China's view on Arctic cooperation', speech by Assistant Foreign Minister Liu Zhenmin at the High North tour 2010, <<http://www.fmprc.gov.cn/eng/wjbj/zjg/tyfls/tfsxw/t812046.htm>>.

²⁹ Polar Research Institute of China website, 'Brief introduction', <<http://www.pric.gov.cn/enindex.asp>>.

³⁰ Li, J., '中国启动开发极地战略 依法参与北极开发' [China launches polar development strategy to legitimately take part in Arctic development], *Shijie Xinwen Bao*, 14 Sep. 2010.

Sino-Nordic cooperation in the Arctic as well Russia's Arctic strategies. One of two SIIS vice-presidents, Yang Jian, leads Arctic research within SIIS. Five years ago Arctic researchers in China were not of Yang's stature. His articles articulating China's stance on future challenges of Arctic governance are the most authoritative unofficial reflections in open-source literature of China's thinking on issues of sovereignty and rights in the region.³¹

Others research institutes. The China Institute for Marine Affairs (CIMA) is the core institution for Chinese research on maritime policy, legislation, economics and interests.³² As the SOA's internal research centre, CIMA has a broad agenda, of which the legal aspects of China's polar policies are just one focus. To date CIMA has not set up a special department for polar affairs.

The Chinese Academy of Science (CAS) is the country's central academic and research institution for natural sciences, technological science and high-tech innovation. Within CAS, several institutes conduct scientific studies on the Arctic environment and climate change, such as the Institute of Aerophysics, the Institute of Geographic Sciences and Natural Resources, and the Institute of Oceanology.

The government also sponsors Arctic-related research within universities. Thus, university researchers not only publish writings in the public domain about their study on general Arctic issues, they also produce internal papers with policy recommendations about China's Arctic activities. One of the first scholars to pay attention to Arctic geopolitics was Li Zhenfu of Dalian Maritime University, which continues to be the leader of China's academic research on shipping through the Northern Passages. Li has published extensively on Arctic shipping and logistics. In 2010, the Arctic Shipping Affairs Research Center was established within the university's Shipping Development Academy.³³ The Ocean University of China (OUC) is China's leading university in oceanography and marine science.³⁴ In 2010 the School of Law and Political Science of OUC established the Research Center for Polar Law and Science. The centre hosts Liu Huirong, an expert in Arctic legal issues, and Guo Peiqing, one of China's leading advocates of China's polar rights.

In Li Zhenfu, Liu Huirong and Guo Peiqing, a number of professors of politics in universities in Shanghai are undertaking government-funded projects on Arctic geopolitics. Chen Yugang and his team at Fudan University are researching international Arctic cooperation and China's strategy.³⁵ Pan Min and Wang Chuanxing at Tongji University are studying Arctic changes and their implications for China's security.³⁶ Researchers from Shanghai University of Political Science and Law are examining the Arctic from a climate

³¹ See e.g. Yang, J., 'China has a key role in safeguarding the Arctic', *China Daily*, 29 June 2012, <http://europe.chinadaily.com.cn/epaper/2012-06/29/content_15535608.htm>; and Yang, J., '北极事务离不开中国寻求观察员地位' [China is a part of Arctic affairs and is seeking for observer position in Arctic Council], *Huanqiu Shibao*, 20 Apr. 2012, <<http://opinion.huanqiu.com/roll/2012-04/2642694.html>>.

³² China Institute for Marine Affairs website, '海洋发展战略研究所简介', <http://www.cima.gov.cn/_d270421662.htm>.

³³ '大连海事大学成立北极海事研究中心' [Dalian Maritime University sets up Arctic Shipping Affairs Research Center], China National Shipping Service, 7 Apr. 2010, <<http://www.cnss.com.cn/article/32478.html>>.

³⁴ Ocean University of China website, 'About', <<http://www.ouc.edu.cn/english/aboutouc/aboutouc.html>>.

³⁵ Chen, Y., Tao, P. and Qin, Q., '北极理事会与北极国际合作研究' [Arctic Council and Arctic international cooperation], *Guoji Guancha*, vol. 112, no. 4 (2011), pp. 17–23.

³⁶ Pan, M. and Zhou, Y., '论北极环境变化对中国国家非传统安全的影响' [Arctic environmental change and its impact on China's non-traditional security], *Jidi Yanjiu*, vol. 22, no. 4 (Dec. 2010), pp. 415–22.

change perspective as well as Chinese–Canadian cooperation in Arctic affairs.³⁷ As of March 2013, it was presumed that an Arctic research centre will be established within the PRIC in cooperation with the Icelandic Centre for Research (Rannis).³⁸

Commercial actors

Although Chinese officials and researchers are increasingly aware of the potential opportunities that the melting of the Arctic offers industries such as shipping, resources and fishing, and tourism, the region has only just started to be noticed by the commercial sectors in China.

Shipping and fishing industries are expected to be the first to benefit from a seasonally accessible Arctic. Transiting the Northern Sea Route north of Russia from Shanghai to Rotterdam would shorten the trip by 6100 nautical miles compared to the route via the Strait of Malacca and the Suez Canal.³⁹ This would trim off about a week's sailing time. Financial savings associated with using this shorter route are estimated at about US\$600 000 per vessel.⁴⁰

In 2012, the polar research icebreaker *Xuelong* was the first Chinese vessel to successfully navigate the Northern Sea Route into the Barents Sea, returning to the Bering Strait via the North Pole.⁴¹ According to Huigen Yang, director general of PRIC, the trip has 'greatly encouraged' China's shipping companies' interest in the commercial viability of the route, with at least one company reportedly considering using the NSR during the summer of 2013.⁴² According to PRIC estimates, by 2020 5–15 per cent of China's total international trade will pass via the NSR. Ten per cent of China's trade is projected to be valued at US\$683 billion in 2020.⁴³ However, expectations of the viability of the route vary and are projections are often inflated. For example, in September 2012, an NDRC official attending the 15th EU–China Summit said that 30 per cent of cargo between China and Europe is expected to transit via the NSR in the future.⁴⁴

Despite the potential of the NSR, it could prove commercially unprofitable for shipping companies, at least in the short term, due to high insurance premiums, lack of infrastructure and harsh operating conditions. This uncertainty is presumably the reason why China's largest state-owned shipping companies have adopted a wait-and-see

³⁷ See e.g. He, Q., '气候变化与北极地缘政治博弈' [Climate Change and geopolitical games in the Arctic], *Waijiao Pinglun*, vol. 27, no. 5 (2010), pp. 113–22; and Zhao, Y., '加拿大北极政策剖析' [Analysis of Canadian Arctic Policy], *Guoji GuanCha*, vol. 115, no. 1 (Jan. 2012), pp. 72–79.

³⁸ Indications that China would launch this joint research centre were given in Aug. 2012 at the Sino-Icelandic workshop on Arctic studies in Reykjavik. The plans were further revealed in the call for applications to the first China-Nordic symposium, to be hosted by PRIC and Rannis in June 2013 in Shanghai. See 'China to open int'l institute for Arctic studies', *China Daily*, 18 Aug. 2012, <http://www.chinadaily.com.cn/china/2012-08/18/content_15686361.htm> and Hreinsson, H., 'First China-Nordic Arctic Symposium', *Arctic Portal*, 22 Feb. 2013, <<http://arcticportal.org/news/21-shipping-news/958-first-china-nordic-arctic-cooperation-symposium>>.

³⁹ Guo, P. et al., 北极航道的国际问题研究 [Study of international Arctic shipping routes] (Ocean Press: Beijing, Oct. 2009), p. 45.

⁴⁰ Ho, J., 'Opening of Arctic sea routes: turning threat into opportunity', RSIS Commentaries, no. 101/2011 (12 July 2011), <<http://www.rsis.edu.sg/publications/commentaries.asp?selYear=2011>>.

⁴¹ Pettersen, Trude. 'China starts commercial use of Northern Sea Route', *Barents Observer*, 14 Mar. 2013, <<http://barentsobserver.com/en/arctic/2013/03/china-starts-commercial-use-northern-sea-route-14-03#.UUbz4jZHBW8.mailto>>.

⁴² 'China plans first commercial trip through Arctic shortcut this year', *South China Morning Post*, 13 Mar. 2013, <<http://www.scmp.com/news/china/article/1189689/china-plans-first-commercial-trip-through-arctic-shortcut-year>>.

⁴³ 'China plans first commercial trip through Arctic shortcut this year', *South China Morning Post*, 13 Mar. 2013, <<http://www.scmp.com/news/china/article/1189689/china-plans-first-commercial-trip-through-arctic-shortcut-year>>.

⁴⁴ Danish Government official, 2013.

approach to the Arctic. To date, only China Offshore Shipping Corporation (COSCO) has even contemplated conducting a profitability study of the NSR.⁴⁵ Chinese shipbuilding companies, in turn, while among the largest in the world, lack experience in building vessels for polar conditions. Moreover, due to excess shipping capacity and decreasing profitability, the Chinese shipping industry, including COSCO, experienced serious losses in 2011 and 2012.⁴⁶ It is unlikely that China's shipping industry will prioritize developing new shipping routes as long as substantial financial risks persist.

The most significant Arctic-related shipping development in China is the leasing of North Korea's Rajin Port by Hunchun Chuangli Haiyun Logistics Company in China's north-eastern Jilin province. The company is private but the lease was agreed 'in cooperation with six Chinese ministries and the Jilin provincial government'.⁴⁷ In 2008, a lease was signed for pier 1 for 10 years.⁴⁸ This agreement granted China an access to the Sea of Japan for the first time since 1938. Although the Arctic was not mentioned in the media reports, Chinese scholars presumably view Rajin as a potential Arctic hub. According to Chinese analysts, 'the opening of Arctic shipping routes will significantly add advantages to the Tumen River area'.⁴⁹ In late 2011, the lease was extended for another 20 years. A year later, Hunchun Chuangli's parent company, Dalian Chuangli Group, leased piers 4, 5 and 6 of Rajin Port for 50 years.⁵⁰

In the Arctic resource sector, Chinese companies have been most active in Greenland. In 2009, a private mining company from Jiangxi Province acquired prospecting rights to explore metal mineral sources in southern Greenland.⁵¹ Another private company from Jiangxi invested in a joint prospecting project in Greenland with the United Kingdom's Nordic Mining Corporation.⁵² A company owned by the Sichuan Provincial Government, Xinye Mining, has reportedly held preliminary discussions over plans to purchase an iron ore mine in Greenland's Isua region from the British company London Mining. If successful, this would constitute the biggest Chinese investment inside the Arctic Circle.⁵³ However, the Chinese purchase may have stalled.⁵⁴ In a March 2013 press briefing, MFA

⁴⁵ '魏家福董事长在冰岛调研商业利用北极夏季航道课题' [Chairman Wei Jiafu expressed interest in Northern Sea Route summer navigation utilization project in Iceland], China Offshore Shipping Corporation, 7 Sep. 2012, <<http://www.cosco.com/cn/news/detail.jsp?docId=23048>>.

⁴⁶ Ye, Y., 'COSCO reports wider loss in H1', China Daily, 30 Aug. 2012, <http://www.chinadaily.com.cn/business/2012-08/30/content_15721349.htm>; '航运业持续冬眠 9亏损公司中期亏近80亿' [Winter lingered on shipping industries: 9 companies reported a total of nearly 8 billion Yuan loss by mid-term 2012], *Zhengquan Ribao*, 31 Aug. 2012.

⁴⁷ Hunchun Chuangli Haiyun Logistic Company representative, Authors' telephone interview, 15 Oct. 2012; and Hunchun Chuangli Haiyun Logistics Ltd., '公司介绍' [Company introduction], Hangyun Zaixian Homepage, <<http://vip.sol.com.cn/SOL04110475>>.

⁴⁸ Qian, H., '破解图们江困境' [Tackling the Tumenjiang dilemma], Liaowang Dongfang Zhoukan, no. 19 (May 2012).

⁴⁹ Zhang, X. et al., '北极航线的海运经济潜力评估及其对我国经济发展的战略' [The economic estimate of Arctic sea routes and its strategic significance for the development of the Chinese economy], *Zhongguo Ruanxue*, Zengkan no. 2 (29 Oct. 2009), p. 92. The article is co-authored by 5 Chinese specialists, including Zhang Xia and Guo Peiqing. North Korea's Rajin port is located on the east coast of the Sea of Japan where it borders China and Russia. It is the Tumen River's final port before it meets the Sea of Japan.

⁵⁰ Ji, H., '中朝贸易加速 朝鲜开放罗津港后再开放清津港?' [Sino-DPRK trade speed up: Chongjin after Rajin?], *Diyi Caijing Ribao*, 8 May 2012.

⁵¹ The Chinese company is called Jiangxi Zhongrun Mining Ltd. See Pu, J., '北极圈寻矿' [Searching for minerals in Arctic Circle], *Xinshiji Zhoukan*, no. 45 (Nov. 2011), <<http://magazine.caixin.com/2011-11-18/100329053.html>>.

⁵² Pu, J., '北极圈寻矿', <<http://magazine.caixin.com/2011-11-18/100329053.html>>.

⁵³ Pu, J., '北极圈寻矿' <<http://magazine.caixin.com/2011-11-18/100329053.html>>.

⁵⁴ Pu, C., 'After year of talks, Sichuan miner still no closer to Greenland deal', *Caixin*, 6 Nov. 2012, <<http://english.caixin.com/2012-11-06/100456915.html>>; Hyltoft, V., 'London Mining på knæ for danske pensionskasser', 21 Feb. 2013, <www.business.dk/global/london-mining-paa-knae-for-danske-pensionskasser>

spokeswoman Hua Chunying said that, to her knowledge, ‘no Chinese enterprises have been granted oil, gas or mining licenses’ in Greenland.⁵⁵ To date, the only measure related to Arctic resources taken by one of China’s large state-owned resource companies was a long-term cooperation agreement regarding transportation of hydrocarbons signed in 2010 between China National Petroleum Corporation and the Russian company Sovcomflot Group.⁵⁶

Tourism to the Arctic Circle, which is already appealing to travellers including from China, could become a destination for Chinese investment.⁵⁷ At present, the market for Antarctic tourism is more developed and better facilitated in China than tourism to the Arctic. According to media reports, 800 Chinese tourists visited the Antarctic in 2012.⁵⁸ In 2011, the Chinese businessman Huang Nubo caused an international media stir because he wanted to purchase 300-square kilometres of land in northern Iceland to develop an Arctic eco-centre for tourists. The Icelandic Government rejected the application from Huang’s company amid controversy stemming from suspicions that the land could be used strategically by the Chinese military.⁵⁹ Huang then pledged to seek alternative opportunities to develop his ambition of an Arctic eco-centre in the High North.⁶⁰ In late 2012, Huang said he was still optimistic that the Icelandic Government would agree to transfer 70 per cent of the land on a 40 years’ lease to his company.⁶¹ If the project in Iceland proceeds smoothly, Huang has said he plans to extend his ecotourism ambitions to Greenland and Finland.⁶²

China’s Arctic policies

China has not published an Arctic Strategy nor is it expected to do so within the next 10 years. The Arctic is simply not sufficiently high on the agenda of senior officials in China.

As a result of China’s insistence on respect for sovereignty and its preoccupation with staunchly defending its perceived sovereign rights in the South and East China seas, China can be expected to continue to respect the sovereign rights of Arctic littoral states. At the same time, the Chinese Government will persist in its diplomatic efforts to increase, step-

⁵⁵ ‘Discussion of China’s Greenland investment “beyond reality”: FM spokeswoman’, Xinhua, 15 Mar. 2013, <http://news.xinhuanet.com/english/china/2013-03/15/c_132236925.htm>

⁵⁶ Nong, H., ‘Arctic energy: pathway to conflict or cooperation in the High North’, *Journal of Energy Security* (May 2011); Sovcomflot’s (SCF), ‘Sovcomflot Group and China National Petroleum Corporation become strategic partners’, Press release, 22 Nov. 2010, <<http://www.sovcomflot.ru/npage.aspx?did=75963>>.

⁵⁷ See e.g. Domnitskaya, M., ‘Russian Arctic welcomes tourists’, Voice of Russia, 26 Mar. 2012, <http://english.ruvr.ru/2012_03_26/69630326/>; and Fu, Y., ‘500游客尝鲜北极圈 南北极旅游起步价5万’ [50 thousands tourists took a taste of the Arctic Circle: 50 thousands Yuan starting fare for Arctic and Antarctic travel], *Beijing Wanbao*, 16 Oct. 2012.

⁵⁸ Chen W., ‘火爆!解读中国人南极热’ [Hot! Interpreting Chinese Antarctic fever], *Guangzhou Daily*, 11 Dec. 2012, <http://gzdaily.dayoo.com/html/2012-12/11/content_2058414.htm>.

⁵⁹ Huang previously worked for International Department of the Communist Party of China for 11 years. On departure he held the rank of division head. Zhang, Y., ‘黄怒波:野蛮人的冰岛征途’ [Huang Nubo: a barbarian’s journey to Iceland], *Nanfang Zhoumo*, 14 Oct. 2011, <<http://www.infzm.com/content/63891>>; and Ward, A., Anderlini, J. and Hook, L., ‘China and the world: a chilly reception’, *Financial Times*, 2 Sep. 2011, <<http://www.ft.com/intl/cms/s/0/a261c6fa-d550-11e0-bd7e-00144feab49a.html>>.

⁶⁰ 黄怒波:最快6月和冰岛签约 后续进军丹麦芬兰’ [Huang Nubo: Agreement with Iceland to conclude in June at the earliest, Denmark and Finland to follow], China News Service, 5 May 2012, <<http://finance.chinanews.com/cj/2012/05-05/3866816.shtml>>.

⁶¹ Mei, J., ‘Chinese business close to renting land in Iceland’, *China Daily*, 4 May 2012, <http://www.chinadaily.com.cn/china/2012-05/04/content_15214440.htm>.

⁶² 黄怒波:最快6月和冰岛签约 后续进军丹麦芬兰’ [Huang Nubo: Agreement with Iceland to conclude in June at the earliest, Denmark and Finland to follow], Chinanews.com, 5 May 2012, <<http://finance.chinanews.com/cj/2012/05-05/3866816.shtml>>.

by-step, China's chances of being included in decisions pertaining to Arctic governance and resource exploitation despite its legal status as an 'Arctic outsider'. As a non-Arctic state, China must rely on diplomatic cooperation and the positive impact of scientific engagement and investments to promote its interests in the Arctic. In the short term, ensuring access for Chinese vessels to the Arctic shipping routes will be a priority simply because the melting ice will permit regular ship transits sooner than resource exploration and extraction. This means that China will be dogmatic in emphasizing the rights of non-Arctic states when issues such as search and rescue requirements, environmental standards and icebreaker service fees are decided.

China's polar research

China's polar research is expected to remain overwhelmingly more focused on the Antarctic than the Arctic. Over the past decades, China has allocated most of its polar resources to the Antarctic, so pre-existing Antarctic operations demand greater attention and resources than its research activities in the Arctic. China's plans to build two more Antarctic research stations by 2015 further reflect its Antarctic research focus.⁶³ Also, the legal status and governance regime of the Antarctic is perceived as relatively stable based on the 1959 Antarctic Treaty.

Because China's new polar research icebreaker is reported to have stronger research and icebreaking capabilities than *Xuelong*, it is not certain that simultaneous expeditions to the Antarctic and Arctic will be conducted. *Xuelong* could primarily be used as a supply vessel while the new icebreaker could be predominantly used for China's polar research and exploration activities. However, since *Xuelong* has not always been able to get supplies through to China's Antarctic stations, especially Zhongshan station where the surrounding ice is particularly thick and difficult to break, the new icebreaker will probably have to take partial responsibility for delivering supplies as well.

China and the Arctic Council

Chinese Arctic specialists within both government and academia have expressed concern that the Arctic Council member states are the sole decision-makers for the region.⁶⁴ They view this as an inadequate governance structure given the global consequences of the melting ice.⁶⁵ Chinese scholars emphasize that, aside from the Arctic Council member states, the new Arctic environment offers opportunities and poses challenges for other

⁶³ 'China to build two more Antarctic research stations by 2015', *Xinhua*, 29 Mar. 2013, <http://news.xinhuanet.com/english/sci/2013-03/29/c_132271309.htm>.

⁶⁴ Liu, Z., Chinese Assistant Foreign Minister, 'China's view on Arctic cooperation', Speech on the High North Study Tour 2010, Chinese Ministry of Foreign Affairs, <<http://www.fmprc.gov.cn/eng/wjbj/zjzg/tyfls/tfsxw/t812046.htm>>; Chen, Y., Tao, P. and Qin, Q., '北极理事会与北极国际合作研究' [The Arctic Council and Arctic international cooperation], *Guoji Guancha*, vol. 112, no. 4 (2011), pp. 17–23; Wang, C., '论北极地区区域性国际制度的非传统安全特性-以北极理事会为例' [On the characteristics of non-traditional security of regional international institutions in the Arctic region: a case study of the Arctic Council], *Zhongguo Haiyang Daxue Xuebao*, no. 3 (2011), pp. 1–6; and Sun, K. and Guo, P., '北极理事会的改革与变迁研究' [Research on reform and transformation of the Arctic Council], *Zhongguo Haiyang Daxue Xuebao* (Shehuikexue Ban), no. 1 (2012), pp. 5–8.

⁶⁵ See Liu, Z., 2010; and Cheng, B., '北极治理机制的构建与完善: 法律与政策层面的思考' [Construction and improvement of Arctic governance: thinking from legal and policy perspectives], *Guoji Guancha*, no. 4 (2011), pp. 1–8; Qu, T., et al. 2011, p. 272; and Sun, K. and Guo, P., '北极理事会的改革与变迁研究' [Research on reform and transformation of the Arctic Council], *Zhongguo Haiyang Daxue Xuebao* (Shehuikexue Ban), no. 1 (2012), pp. 5–8.

countries, such as China.⁶⁶ China's present Arctic policies and research agenda are based on the premise that the more the Arctic states recognize the potentially lucrative implications of a melting Arctic, leading them to adopt policies to maximize their interests in the region, the more China, as a non-Arctic state, should look after its own interests and what it perceives as its rights.

According to mainstream thinking among Chinese Arctic specialists, China has a legitimate right to participate in Arctic governance because environmental changes in the Arctic have a major impact on China's ecological system and, subsequently, its agriculture and economic development.⁶⁷ Moreover, China claims a right to explore the area of the Arctic Ocean that is in international waters, based on the 1982 United Nations Convention on the Law of the Sea (UNCLOS), to which China is a party.⁶⁸ Hence, academics advocate that China should make every effort to ensure that it will be included in discussions and decisions pertaining to Arctic governance.⁶⁹

China has been an ad-hoc observer at Arctic Council meetings since 2007 and has lobbied hard for its permanent observer application to be accepted at the Arctic Council ministerial meeting in May 2013.⁷⁰ According to unconfirmed accounts of an Arctic Council event in Sweden in November 2012, to which ad hoc and permanent observers were invited, China's representative was forthright and even assertive in his remarks about the rights of non-Arctic Council member states. Based on this and private discussions with Chinese Arctic officials, China is anxious to be accepted as a permanent observer. As an ad hoc observer, China must await a formal invitation to Arctic Council ministerial meetings and other activities. As a permanent observer, China would automatically have the right to attend, but still would not have voting rights.

Exclusion from decision-making pertaining to the Arctic is undoubtedly a concern of the Chinese Government. One can presume that China hopes that permanent observers will be able to gradually influence the decision-making processes of the Arctic Council. For example, Gou Haibo, a former director of the MFA's Department of Treaty and Law, wrote in 2011:

'The Arctic states have generally expanded their sovereign and jurisdictional rights within the Arctic . . . Inter-regional issues like shipping, resource exploration, and environmental protection have required cooperation between Arctic and non-Arctic state, which could potentially lead to the weakening of Arctic states' monopolistic position within the region. Given that cooperation is required with non-Arctic states, it is impossible for non-Arctic states to simply be the passive users of Arctic sea routes. Nor can non-Arctic states simply be the end consumers of the region's energy

⁶⁶ See e.g. Yang, J., 'China has a key role in safeguarding the Arctic', *China Daily*, 29 June 2012; Yang, J., '北极事务离不开中国 寻求观察员地位' [China is a part of Arctic affairs and is seeking for observer position in Arctic Council], *Huanqiu Shibao*, 20 Apr. 2012; and Li, S., Pan, M. and Yan, Q., '机遇与挑战: 气候变暖趋势下的北极' [Opportunities and challenges: Arctic under climate change], *Kexue*, vol. 61, no. 4 (2009), pp. 45–48.

⁶⁷ Liu, H., '中国可以在北极做什么' [What can China do in the Arctic?], *Jingji Cankao Bao*, 27 Dec. 2011.

⁶⁸ Qu, T. et al., 2011, p. 329.

⁶⁹ See e.g. Cheng, B., pp. 1–8; Sun, K. and Guo, P., '北极治理机制变迁及中国的参与战略研究' [Institutional reform of Arctic governance and China's participation strategy], *Shijie Jingji yu Zhengzhi Luntan*, no. 2 (2012), pp. 127–28; and Liu, Z., 2010.

⁷⁰ Two former assistant foreign ministers, Hu Zhengyue and Liu Zhenmin, publicly expressed China's desire for observer status in the Arctic Council, in 2009 and 2010 respectively. See Ning, X., '地球未来的缩影—外交部部长助理谈北极研究之旅' [A microcosm of the world's future—Assistant Foreign Minister talks about 'High North Study Tour'], *Shijie Bolan*, vol. 349, no. 19 (2009), p. 58; and Liu, Z., 2010.

and resources. Rather, they need to actively participate in the decision-making processes and governance regimes within the Arctic region.⁷¹

Therefore, China's desire to become a permanent observer is linked both to an unspoken concern that at some point in the future it will not be a desired attendee and to China's aspiration that observers will be able to, over time, attain more influence in the Arctic Council as Arctic states increasingly cooperate and interact with non-Arctic states over regional issues. A third concern China may have is that the ad hoc observer status will be abolished altogether. As of February 2013, a total of seven country applications for permanent observer status had been submitted to the Arctic Council—from China, the European Union (EU), India, Italy, Japan, Singapore and South Korea. Sweden, as Arctic Council chair, has expressed its goal of dealing with these applications at the May 2013 ministerial meeting.⁷²

Former Assistant Foreign Minister Liu Zhenmin of the MFA elaborated on China's expectations of the Arctic Council in October 2010: 'The Arctic Council [has] continued to pay attention to the livelihood, culture and health of the Arctic residents and other issues concerning sustainable development'. In the same speech, he later pointed out that 'the issue for Arctic Council members now is how to involve non-Arctic states in relevant research endeavours and discussions at an early stage and in depth'.⁷³

The Kingdom of Denmark, Finland, Iceland, Norway and Sweden have all expressed support for China's permanent observer status. Presumably because of media reports insinuating Norway's support would not be forthcoming due to the overall frosty relationship between Oslo and Beijing, Norway's foreign minister in early 2013 reiterated Norway's support of China's application, promising to work towards admitting China observer status in the Arctic Council.⁷⁴ As of mid-February 2013, officials from Canada, Russia and the USA have remained silent on the issue.

At present, permanent observers to the Arctic Council include six non-Arctic states, nine intergovernmental organizations and 11 non-governmental organizations. The inclusion of new permanent observers has been a contentious issue among Arctic Council members in recent years. At two consecutive Arctic Council ministerial meetings (in 2009 and 2011), decisions on all pending applications were deferred due to a lack of consensus among the member states.⁷⁵ At the 2011 Nuuk ministerial meeting, criteria for new permanent observers were announced. While Chinese officials did not publicly comment on these developments, they privately expressed displeasure with some of the criteria, specifically the stipulations that an applicant must have demonstrated the 'political willingness and financial ability to contribute to the work of the Permanent Participants' and 'recognize Arctic states' sovereignty, sovereign rights and jurisdiction in the Arctic'.⁷⁶

⁷¹ Gou, H., '中国参加北极事务涉及的国际法问题' [International law and China's participation in Arctic affairs], in Gao, Z. and et al. (eds), 国际海洋法问题研究, (Research of international maritime laws) (Haiyang Chubanshe: Beijing 2011).

⁷² The Arctic Council, 'Observer status', 14 Feb. 2013, <<http://www.arctic-council.org/index.php/en/about-us/partners-links>>.

⁷³ Liu, Z., 2010.

⁷⁴ Brugard, M., 'Norway says yes to China in Arctic Council', *Barents Observer*, 22 Jan. 2013, <<http://barentsobserver.com/en/arctic/2013/01/norway-says-yes-china-arctic-council-22-01>>; and Xinhua, 'Norway supportive to China's bid for permanent observer to Arctic Council', *China Daily*, 22 Jan. 2013. <http://africa.chinadaily.com.cn/world/2013-01/22/content_16151666.htm>.

⁷⁵ Chinese Arctic and Antarctic Administration officials, Interview with the authors, Beijing, 13 Sep. 2011.

⁷⁶ Chinese Arctic and Antarctic Administration officials; and Arctic Council, 'The criteria for admitting observers and role for their participation in the Arctic Council', Senior Arctic Officials (SAO) reports to ministers, Nuuk, May 2011, <<http://www.arctic-council.org/index.php/en/about/documents/category/20-main-documents-from-nuuk>>, p. 50.

In contrast to the government, Chinese scholars publicly expressed indignation about the Arctic Council's additional criteria for admitting new permanent observers. Cheng Baozhi of SIIS criticized the criteria as meaning that member states of the Arctic Council have 'raised the political threshold in order to stop non-Arctic states interfering in Arctic [affairs]'.⁷⁷ Another academic, Guo Peiqing, stated that the decisions in Nuuk showed that 'Arctic states are announcing to the world: the Arctic belongs to the Arctic states. They reject the idea that the Arctic is a treasure of human kind'.⁷⁸ Still other scholars have responded to the Arctic Council's criteria by insinuating that the Arctic Council risks making itself obsolete. According to Zhang Xia: 'If many countries were to be excluded from the Arctic Council, the power of the council would be weakened and it would be difficult for it to remain the primary institution to negotiate Arctic affairs.'⁷⁹

The fact that China submitted a new permanent observer application to the Arctic Council in 2012 reflects China's acceptance of the additional observer criteria passed at the Nuuk meeting. Nonetheless, China is presumed to have concerns about the requirement to demonstrate respect for the rights and values of the Arctic's indigenous people. By acknowledging and supporting the rights of the Arctic's indigenous inhabitants, China runs the risk of undermining its staunch position regarding the rights of Tibetans in China's Autonomous Tibetan Region and of Uyghurs in Xinjiang Uyghur Autonomous Region. Moreover, in several overseas investment projects Chinese state-owned enterprises have encountered setbacks caused by objections of the local population. Chinese officials are wary of making commitments which would restrict the use of Chinese labourers in overseas investment projects.

The case of Norway

The case of Norway–China ties is illuminating when trying to evaluate precisely how high Arctic issues are on China's foreign policy agenda. Norway is an Arctic Council member and the world leader in deep-sea and cold-climate drilling technology. In August 2010, just two months before the announcement that the 2010 Noble Peace Prize would be awarded to Liu Xiaobo, Norway's foreign minister was warmly welcomed in Beijing amid enthusiastic public declarations of future Chinese–Norwegian Arctic cooperation.⁸⁰ The minister was invited by the China Institute of International Studies under the MFA to give a presentation on the Arctic and he met with his Chinese counterpart. Both events were reported by the official Chinese media. After the October 2010 announcement of Liu Xiaobo, China froze relations with Norway, failing to recognize that the Norwegian Government does not award the prize.⁸¹ For more than two years frosty relations between

⁷⁷ Qian, Y., '中国离北极有多远' [How far is China from the Arctic], *Liaowang Dongfang Zhoukan*, no. 29 (2011), <<http://www.lwdf.cn/wwwroot/dfzk/Focuseast/252093.shtml>>.

⁷⁸ Guo, P., '应对北极门罗主义的挑战' [Making preparations against an Arctic Monroe Doctrine], *Liaowang*, no. 42 (2011), pp. 71–72.

⁷⁹ Qian, Y., 2011.

⁸⁰ Chinese Ministry of Foreign Affairs, '杨洁篪外长与挪威外交大臣斯特勒会谈' [Foreign minister Yang Jiechi met with Norwegian Foreign Minister Jonas Gahr Støre], 31 Aug. 2010, <<http://www.fmprc.gov.cn/chn/pds/wjb/zjzg/xos/xwlb/t736368.htm>>; and Norwegian Ministry of Foreign Affairs, 'The Arctic–Norwegian Policy and International Cooperation', 30 Aug. 2010, <http://www.regjeringen.no/en/dep/ud/Whatsnew/Speechesandarticles/speeches_foreign/2010/arctic_beijing.html?id=613162>.

⁸¹ Berglund, N., 'Chinese relations in deep freeze', Views and News from Norway, 4 Jan. 2011, <www.newsenglish.no/2011/01/04/chinese-relations-in-deep-freeze/>; and Pei, S., 'Is rising Asian power China an emerging trade bully?', *Strait Times*, 27 Sep. 2012.

Beijing and Oslo prevailed. If the Arctic was a priority for China, it would not have maintained punitive measures against Norway for more than two years.

The Chinese Government's Arctic activities need to be assessed in the context of China's overall foreign policy objectives. According to China's own definition these are, first, China's political stability; second, sovereign security, territorial integrity, and national unification; and third, China's sustainable economic and social development.⁸² When one views these objectives in the realm of Arctic affairs, China wants to ensure that it will be able to safeguard its third vital national interest—economic development. This includes access to shorter shipping routes and the means to enhance food and resource security.

The award of the prize to Liu, a person whom the Chinese authorities deem to be a 'criminal trying to sabotage the socialist system', was perceived by the Chinese Government as proof once again of Westerners' 'ill intentions'.⁸³ The desire of the Chinese Government to drive home the message, both domestically and internationally, that China will not tolerate what it perceives as meddling in its internal affairs has outweighed any consideration of possible damage to China's Arctic cooperation with Norway. China's foremost foreign policy objective is to ensure political stability. This means opposing actions that are perceived by China's leaders as threatening the socialist system, and explains why Beijing, to a large extent, continued to shun Oslo for over two years, even though Norway would be a very attractive Arctic partner.

In recent months, there have been indications that relations between the two countries are thawing. In March 2013, Norway's Foreign Minister, Espen Barth Eide, said he was 'optimistic' about resuming normal relations with China. Importantly, Eide noted that China is no longer demanding that the Norwegian Government apologize for awarding the Peace Prize to Liu Xiaobo, and that it would appear to accept that the Nobel Committee is not controlled by the government.⁸⁴

China's public face

The vigorous public debate among Chinese Arctic scholars over the years indicates an evolution in their thinking about China's approach to Arctic governance. Chinese academics were first alarmed about potential Arctic geopolitical competition when in 2007 Russia planted its national flag on the North Pole seabed in an act perceived as a declaration of sovereignty. Early reactions and discussions tended to be hawkish and assertive, focusing on identifying the benefits of the melting ice for China and assessing what legitimate rights China has in the Arctic region, and were mostly carried out by researchers and PLA officers with a strong geopolitical emphasis.

However, since late 2011, following the Arctic Council's second deferral of decisions on permanent observer applications, Chinese Arctic scholars have become more subdued in public. Chinese officials are certainly well aware of the suspicions that China's interest in the Arctic evokes and of the sensitivities of Arctic politics, especially in the realm of resources and sovereignty. Indeed, Chinese officials are concerned that overly provocative and assertive statements on China's intentions in the Arctic run the risk of offending Arctic

⁸² Dai, Binguo, '坚持走和平发展道路(全文)' [Adhering to the path of peaceful development (full text)], China News Service, 7 Dec. 2010, <<http://www.chinanews.com/gn/2010/12-07/2704984.shtml>>. Dai was China's State Councillor in charge of China's foreign affairs from Mar. 2008 to Mar. 2013.

⁸³ Wang, J., 'China's search for a grand strategy', *Foreign Affairs*, vol. 90, no. 2 (Mar./Apr. 2011), p. 70.

⁸⁴ Berglund, N., 'Chinese relations set to normalize', *Views and news from Norway*, 6 Mar. 2013, <<http://www.newsinenGLISH.no/2013/03/06/chinese-relations-set-to-normalize/>>.

states and undermining China's position in the region and its bid for permanent observer status. Today, this concern shapes the public face of Chinese Arctic analysis.

For now, Chinese officials are making a concerted effort to focus on avoiding contentious issues, such as resource exploration and development and sovereignty claims. In March 2013, an MFA spokeswoman downplayed media reports on China's investment interests in Greenlandic resources, dismissing them as 'groundless hype'.⁸⁵ Some Chinese commentators fear that if China's analysis delves into these controversial issues, Arctic countries may use environmental concerns as a pretext for delaying decisions on, or rejecting applications for, permanent observer status. International cooperation on uncontroversial issues, such as climate change, has therefore become the central goal for China in its approach to the Arctic.

Indeed, Liu Huirong believes that focusing on Arctic climate change is the best approach for China, and that Arctic biodiversity, shipping, fishery management and indigenous people's rights can be raised in discussions at global climate change negotiations. The number of Chinese researchers who recommended that climate change be prioritized in China's Arctic agenda so as to avoid controversy increased from 2011. This also reflects a new kind of public narrative.⁸⁶ By advocating a focus on climate change, Chinese scholars strive to circumvent the sensitivity of Arctic resources and sovereignty issues, and to calm outsiders' concerns about China as a rising power; climate change cooperation also provides China with opportunities to partner with other states on the Arctic agenda.

United Nations Convention on the Law of the Sea

For China, the UNCLOS provisions constitute the legal basis for the country's activities in the Arctic. China acknowledges that because it does not border the Arctic Ocean it does not have sovereign rights in the region.

Yet many Chinese are concerned that, while China's scientific activities in the region are protected under UNCLOS, the convention neither comprehensively covers nor adequately protects all of China's perceived interests in the Arctic. Guo Peiqing estimates that 'the high seas area [in the Arctic] will shrink by two-thirds if all the outer-continental shelf claims by Arctic states were to be approved'.⁸⁷ Gui Jing of a SOA-affiliated agency writes, 'If the Arctic states succeed in their claims to extend their outer continental shelves, the international community's and China's right to fairly benefit from Arctic resources will be weakened'.⁸⁸ China's interests are only partially covered by UNCLOS, which could lead some scholars in China to actively advocate for changes to the Arctic's current governance regime.

⁸⁵ Zhang, Y., 'China dismisses hysteria over Greenland ventures', *China Daily*, 16 Mar. 2013, <http://usa.chinadaily.com.cn/china/2013-03/16/content_16312956.htm>

⁸⁶ See, for example, Lu, J., *北极地缘政治与中国应对* [Geopolitics in the Arctic and China's response] (Shishi Press: Beijing, Dec. 2010), p. 340; Liu, H., '中国可以在北极做什么' [What can China do in the Arctic?], *Jingji Cankao Bao*, 27 Dec. 2011; and Yang, J., 'China has a key role in safeguarding the Arctic', *China Daily*, 29 June 2012; and Yang, J., '北极事务离不开中国 寻求观察员地位' [China is a part of Arctic affairs and is seeking for observer position in Arctic Council], *Huanqiu Shibao*, 20 Apr. 2012.

⁸⁷ Guo, P., Professor, Ocean University of China, authors' interview, Qingdao, 25 June 2009.

⁸⁸ Gui, J., '外大陆架划界中的不确定因素及其在北极的国际实践' [Uncertain factors in the delimitation of the outer continental shelf and its international practice in the Arctic], *China Ocean Law Review*, no. 1 (2010), p. 116. Gui Jing is a researcher at the National Marine Data and Information Service, an agency under the SOA.

Svalbard Treaty

In addition to UNCLOS, Chinese officials and scholars see the 1920 Svalbard Treaty as another legal foundation to safeguard China's Arctic interests.⁸⁹ The treaty, which China ratified in 1925, is widely regarded by Chinese officials and scholars as another justification for China's Arctic presence. The treaty establishes Norway's sole sovereign right to the Svalbard archipelago while granting its 42 parties equal rights to undertake fishing, hunting, mining, trade and industrial activities in the area.⁹⁰ Under the treaty, 10 signatories, including China, have set up polar research stations at Ny-Ålesund.

Relations with Arctic littoral states

China has been particularly wary of Russia's intentions in the Arctic. This reflects an underlying mix of mutual apprehension and suspicion about the other's intentions in overall China–Russia bilateral ties—despite senior leaders' rhetoric about the best relations in history. During private conversations Chinese officials have expressed their concerns that Russia, in particular, will oppose China's permanent observer status at the Arctic Council.

Chinese observers often point to Russia's decision in August 2007 to resume long-distance bomber flights over the Arctic and the planting of a Russian flag on the Arctic seabed that same month as evidence of Russia's strategic ambitions in the region. Professor Guo Peiqing of the Ocean University of China has described disputes in the Arctic as 'Russia and some other states' challenge to the international order and international law after the end of the cold war'. However, there is no evidence that Russia is not playing by the rules or that it would not want to find multilateral solutions to disputes regarding sovereignty.⁹¹

In 2010, China and the United States began holding an annual dialogue on the law of the sea and polar issues as a part of the US-China Strategic and Economic Dialogue. However, the Arctic remains a marginal issue in these discussions.⁹²

With the exception of Norway, Beijing has excellent relations with all the Nordic countries; and as the Arctic ice continues to melt, these relations can be expected to receive additional attention and resources. Once China–Norway relations regain momentum, Norway will resume its position at the forefront of Nordic cooperation in the Arctic realm with China.

⁸⁹ Qu, T. et al. (eds), 北极问题研究 [Research on Arctic issues] (Ocean Press: Beijing, June 2011), p. 327.

⁹⁰ Treaty relating to Spitsbergen (Svalbard Treaty), signed 9 Feb. 1920, entered into force 14 Aug. 1925, *League of Nations Treaty Series*, vol. 2 (1920).

⁹¹ Jakobson, L., 'China prepares for an ice-free Arctic', SIPRI Insights on Peace and Security no. 2010/2 (Mar. 2012), pp. 12–13.

⁹² Jakobson, L., 'Northeast Asia turns its attention to the Arctic', *NBR Analysis Brief*, 17 Dec. 2012.

3. The Arctic activities and policies of Japan

Summary

Like China and South Korea, Japan's interests in the Arctic are growing rapidly. The Northern Sea Route presents both an economic opportunity and strategic challenge for Japan's leaders. With several large northern ports, Japan is able to take advantage of new shipping routes opening as the Arctic ice melts. Deposits of natural resources in the Arctic are also of interest to Japanese policymakers and commercial actors alike, particularly since the Fukushima nuclear disaster of 2011. The melting Arctic ice also presents Japan with new security challenges, as new sea lanes and approaches open to the country's north. Japan has ongoing territorial disputes with both China and South Korea, as well as with Russia.

Japan's immediate short-term interest is to gain permanent observer status at the Arctic Council. Ultimately, Japan hopes to have a seat at the table as the economic, strategic and legal issues emerging as the Arctic environment changes are addressed.

Drivers of Japan's Arctic interests

In August 2012, *Yomiuri Shimbun*, a major daily newspaper, published a piece describing Japan as a 'latecomer' to Arctic affairs and voicing concern that the country could be left behind by neighbouring countries, particularly China, in taking advantage of the region's commercial and strategic opportunities.⁹³ Japan was the last among the three North East Asian neighbours to apply for permanent Arctic Council observer status. 'Even about three years ago, nobody in Japan paid serious attention to the Arctic', said a key Japanese Arctic expert.⁹⁴ Japan's relative lack of interest in the Arctic could be explained by the island nation's reserved approach to international matters in general.

This 'latecomer' label is, however, only partially accurate. In some respects, Japan's interest in the Arctic goes back further than do China's or South Korea's. In the 1990s, Japanese shipping companies worked closely with Norwegian and Russian Arctic research institutes to explore the commercial potential of the Arctic, well before it began to gain global attention, according to one expert. Yet by the time other countries started to engage more seriously in Arctic research, Japanese companies remained sceptical of the economic potential of Arctic shipping and resources. One of the reasons for this scepticism was that early government-led studies concluded that the speed of melting of the Arctic ice, a crucial component for all the discussions surrounding the opening of new sea lanes, was exaggerated and Tokyo subsequently shelved ongoing initiatives in the region. Japan's economic decline in the 1990s gave further cause for caution among its shipping companies.

Commercial

Lack of interest from Japan's commercial sector has limited the development of Tokyo's Arctic policy. The Japanese business community is only now beginning to seriously

⁹³ 'Japan needs to gain voice in Arctic Ocean development', *Yomiuri Shimbun*, Aug. 27, 2012, <<http://www.yomiuri.co.jp/dy/editorial/T120827002806.htm>>.

⁹⁴ The expert, one of the early pioneers of Japan's Arctic policy and its security implications, asked not to be named so that he could discuss freely.

consider the potential opportunities of an ice-free Arctic and a NSR for maritime transportation.

According to Dr Tetsuo Kotani, an expert on Arctic affairs at the Japan Institute of International Affairs (JIIA), 'As long as there is not a clear interest from the industry sector, it's very difficult for the government to promote it at the national level'. Yet Japan's scarcity of natural resources has led to industry reconsidering the potential of the Arctic, particularly as a potential source and transport route for LNG. Japan's resource sector has recently resumed collaboration with Canadian, Russian and Norwegian counterparts to investigate Arctic opportunities. According to Dr Shigeki Toriumi of Chuo University, 'Japan needs to cultivate a diversity of resource exporting partners and is watching the situation very carefully from the perspective of risk management.'⁹⁵ In December 2012, Kyushu Electric Power Company purchased LNG from Norway's Hammerfest Snohvit LNG project, transited via the Northern Sea Route.⁹⁶

According to one expert, the shipping industry remains sceptical about the commercial viability of the NSR in the immediate future: 'Shipping companies don't make plans based on optimistic estimates. They need reality.'⁹⁷ Confirming industry scepticism, a Japanese shipping company representative commented in January 2013 that getting 'commodities to the destination as soon as possible under any circumstances is not always right. Safety and stability of the shipping routes are also of critical importance.'⁹⁸

Strategic

Japan is concerned that increased commercial activities and a rush for Arctic resources will be accompanied by an increased military presence, including naval operations, around its northern waters. According to Hashimoto Yasuaki of Japan's National Institute of Defense Studies, if either Russia or the United States 'were to operate military surface vessels and submarines in the Arctic, this would constitute the deployment of military force very close to the other country's mainland.'⁹⁹ Hashimoto writes that while at present 'neither Russia nor the United States has had to worry too much about military encroachments by the other party in the Arctic, the opening up of the Arctic Ocean would threaten to destabilize the security situation in the 'backyard' of the two nations'. With Arctic states including Russia expanding military polar operations and capabilities and China and South Korea devoting significant resources to their respective polar research programmes and capabilities, Japan is also considering the strategic implications of the changing Arctic environment.

Japan's Arctic actors

Government

The Ministry of Foreign Affairs of Japan (MOFA) is in charge of coordinating efforts to gain permanent observer status in the Arctic Council and for the Arctic Task Force, which

⁹⁵ Toriumi, S., 'The Potential of the Northern Sea Route', *Yomiuri*, 28 Feb. 2011, <<http://www.yomiuri.co.jp/adv/chuo/dy/opinion/20110228.htm>>.

⁹⁶ Yep, E., 'Gas tanker takes shortcut to Asia', *Wall Street Journal, Asia Edition*, 2 Dec. 2012, <<http://online.wsj.com/article/SB10001424127887324020804578150563502056032.html>> .

⁹⁷ Interview and email exchange with authors, Jan. 2013.

⁹⁸ '北極海を通して、太平洋と大西洋を結ぶ航路のことです' [The Arctic route is a shipping route that connects the Atlantic Ocean and the Pacific Ocean], *Yomiuri Shimbun*, 28 Jan. 2013, <<http://www.yomiuri.co.jp/job/biz/qaworld/20130123-OYT8T00864.htm>>.

⁹⁹ Hashimoto, Y., 'Maintaining the order in the Arctic Ocean: cooperation and confrontation among coastal nations', in Yoshiaki, S. (ed.), *East Asia Strategic Review 2011*, p. 66.

was established in 2010. The Task Force was established to take a ‘cross-sectoral approach’ to Arctic foreign policy and related issues of international law.¹⁰⁰ The Arctic Task Force is reportedly run by the Deputy Head of the International Legal Bureau, who is an expert on Arctic legal issues. MOFA’s International Legal Affairs Bureau (Ocean Division) is now responsible for coordination among Japan’s various government departments on Arctic issues.

The Ministry of Education, Culture, Sports, Science, and Technology (MEXT) is responsible for scientific research in the Arctic. MEXT established the *Earth Observation Promotion Committee* under the Council for Science and Technology to carry out systematic and ongoing scientific Arctic research. In 2011, MEXT funded a six-year comprehensive Arctic climate change research program, managed jointly by the National Institute for Polar Research (NIPR) and Japan Agency for Marine-Earth Science and Technology (JAMSTEC).

The Ministry of Land, Infrastructure, Transport and Tourism (MLIT) is responsible for formulating policy related to the Northern Sea Route and providing information related to Arctic shipping to commercial and interested parties. In March 2012, MLIT announced that it will evaluate the impact of the NSR as an international shipping lane from economic, security and environmental perspectives.

The Ministry of Defense (MOD) conducts its own studies on the Arctic security while maintaining a low profile.¹⁰¹

In 2010, Japan established the *Ocean Policy Headquarters* under the Cabinet Office, with the aim of coordinating different agencies on Arctic policy. However, various interviewees point out that the Headquarters’ policy-coordination efforts are impaired by Japan’s bureaucratic tradition that hampers inter-agency communication.¹⁰²

Other institutions

The National Institute for Polar Research (NIPR) has been conducting research on the upper and super-upper atmosphere of the Arctic since the 1970s.¹⁰³ Full-scale, regular Arctic research started in 1990 with the establishment of the Arctic Environmental Research Center (AERC) (later Arctic Observation Center). In 1992, the centre established an observation station at Ny-Ålesund, Svalbard. NIPR’s long-term research focus has been the Antarctic, and it has prioritized Antarctic research and Antarctic–Arctic comparative research over Arctic research. However, in recent years NIPR has begun to strengthen its Arctic research capacity. In 2011, NIPR initiated a six-year ‘Arctic Climate Change Research Project’ funded by MEXT. The project covers areas including the Arctic ecosystem and sea ice distribution. One component of the project involves ‘sea ice prediction and construction of an ice navigation support system for the Arctic sea routes.’¹⁰⁴

¹⁰⁰ Ministry of Foreign Affairs of Japan, ‘Launching of the “Arctic Task Force (ATF)”’, press release, 2 Sep. 2010, <http://www.mofa.go.jp/announce/announce/2010/9/0902_01.html>.

¹⁰¹ Authors’ interview.

¹⁰² Authors’ interviews.

¹⁰³ See National Institute of Polar Research website, <<http://www.nipr.ac.jp/english>>

¹⁰⁴ See ‘GRENE Arctic climate change research project’, <<http://www.nipr.ac.jp/grene/e/subject.html>>.

Japan Oil, Gas and Metals National Corporation (JOGMEG) is a quasi-government agency established through the integration of the Japan National Oil Corporation and Metal Mining Agency of Japan. JOGMEG researches and invests in natural resource deposits and development overseas, including in the Arctic, with funding from leading Japanese companies. In March 2013, JOGMEG extracted gas from offshore methane deposits in a world first.¹⁰⁵ In 2011, JOGMEG provided 75 per cent equity capital to Greenland Petroleum Exploration Co., in a joint venture with INPEX Corp., Idemitsu Kosan Co. and Sumitomo Corp. The same year, Greenland Petroleum Exploration Co. bid for an oil and gas development licence covering waters off Greenland's north-east coast. JOGMEG, together with Statoil Hydro, BP, ExxonMobil, Chevron and Nunaoil, formed the Kanumas Group consortium, which will be given exclusive consideration in the first round of evaluation by the Greenland Government. The results are yet to be announced.¹⁰⁶

The Japan Agency for Marine-Earth Science and Technology (JAMSTEC) began conducting Arctic research in 1991 in cooperation with the United States.¹⁰⁷ It currently conducts Arctic research expeditions in conjunction with universities and other Japanese research institutes.

The Ocean Policy Research Foundation (OPRF), established as the Japan Foundation for Shipbuilding Advancement in 1975, is Japan's leading research institute on Arctic affairs. OPRF began organizing conferences on the Arctic in Japan in 2010.¹⁰⁸ In 2012, OPRF drafted an Arctic policy proposal for the Japanese Government, which will be updated in 2013.¹⁰⁹ OPRF's staff includes both scientists and security experts.

The Japan Institute of International Affairs (JIIA), one of Japan's most important foreign affairs think tanks, has also begun paying attention to Arctic affairs in a sign that the Arctic is rising on the agenda of Japan's policymakers.¹¹⁰ In 2012, JIIA initiated a research project titled 'Arctic Governance and Japan's Foreign Strategy', led by Kazuhiro Nakatani from the University of Tokyo. The team, comprising researchers from Waseda University, JIIA, the University of Tokyo, JOGMEG and NYK Line, is expected to cover a wide array of issues relating to Arctic governance and Japan's foreign policy.

The Institute of Low Temperature Science (ILTS) promotes comprehensive research of natural phenomena including bio-environmental, water and substance cycles and snow ice in the cryosphere and other cold environments. ILTS's recent international exchange programme included a meeting with the University of Copenhagen's Niels Bohr Institute in Denmark in February 2012.

¹⁰⁵ Tsukimori, O., 'Japan achieves first gas extraction from offshore methane hydrate', Reuters, 12 Mar. 2013, <<http://www.reuters.com/article/2013/03/12/us-methane-hydrates-japan-idUSBRE92B07620130312>> .

¹⁰⁶ See 'Japan to bid for oil field development in Arctic Circle', *Asahi Shimbun*, 20 Oct. 2011, <<http://ajw.asahi.com/article/economy/business/AJ2011102015314>>; JOGMEG, '2012 Annual Report', <<http://www.jogmec.go.jp/content/300075892.pdf>>; and 'Huge interest in east-Greenland oil', Arcticportal, 18 Dec. 2012, <<http://arcticportal.org/news/23-energy-news/913-huge-interest-in-east-greenland-oil>> .

¹⁰⁷ See Japan Agency for Marine-Earth Science Technology website, <<http://www.jamstec.go.jp/>>

¹⁰⁸ Interview with Kazumine Akimoto, Senior Research Fellow, Policy Research Department, 26 Jan. 2011.

¹⁰⁹ '日本北極会議海報告書' [Japan's Arctic Ocean Conference Report], Ocean Policy Research Foundation, (海洋政策研究財団), Mar. 2012.

¹¹⁰ 'Russia Arctic Natural Gas Shipping Route to Asia 10 Years Away', *Insurance Journal*, 28 Jan. 2013, <<http://www.insurancejournal.com/news/international/2013/01/28/279017.htm>>

The Japan Consortium for Arctic Environmental Research (JCAR) promotes Arctic research in Japan by maintaining a national network of Arctic environmental researchers.¹¹¹ The chair of JCAR's steering committee is Tetsuo Ohata of the Japan Agency for Marine-Earth Science and Technology. JCAR cooperates with numerous Arctic institutes around the world.

Japan Aerospace Exploration Agency (JAXA) operates a joint Arctic research project with the University of Alaska and the International Arctic Research Center (IARC).

Private energy and shipping companies such as Nippon Yusen Kaisha (NYK LINE) conduct their own research, mainly in shipping. They seldom share research results with the public, according to an industry insider.¹¹²

Japan's Arctic policies

Interest in Arctic issues has gained momentum among Japanese officials over the past year. According to a Danish Embassy official in Tokyo, 2013 may be the year that Japanese interest in the Arctic will start catching up with its North East Asian neighbours, especially once the Abe administration settles into office.

Scepticism from the private sector presents a challenge to the Japanese Government's Arctic ambitions. Hesitant private shipping companies must be convinced that the region is worth their time and investment, with industry experts estimating that it may take 10 years before commercial natural gas shipping via the NSR begins.¹¹³ Moreover, Japanese experts stress the need for a unified, cross-ministerial task force that operates according to a national Arctic strategy. According to Dr Aki Tonami, an Arctic logistics expert at the Nordic Institute of Asian Studies at the University of Copenhagen:

This [lack of a national, cross-ministerial task force] stems from the particular characteristics of Japanese Government administration, where ministerial horizontal cooperation is rare, and where business and industry interests often play a critical role. Japanese business has not applied sufficient pressure on the government to create a central strategy as they have concluded that benefits from developing the Northern Sea Route are too fragile to gain significant financial or logistics advantages.¹¹⁴

Notwithstanding these challenges, Tokyo hopes that securing a permanent observer status on the Arctic Council can promote its interests in the region.

Scientific research

Scientific research and study of climate change in the Arctic remains the central policy focus for the Japanese Government. In August 2008, the Japanese Government published an interim report on the country's current and future Arctic strategy, which outlined the strategic importance of Arctic research and the need to establish an integral research project and a consortium to coordinate work among Japan's Arctic researchers. By 2011, Japan had identified two main targets for its Arctic research: understanding the effects of

¹¹¹ See <<http://www.jcar.org/english/>>.

¹¹² Authors' interview.

¹¹³ 'Russia Arctic natural gas shipping route to Asia 10 years away', *Insurance Journal*, 28 Jan. 28, 2013, <<http://www.insurancejournal.com/news/international/2013/01/28/279017.htm>>.

¹¹⁴ Tonami, A. and Waters S., 'Japan's Arctic policy: the sum of many parts', *Arctic Yearbook 2012*, <http://www.academia.edu/2235263/Japans_Arctic_Policy_The_Sum_of_Many_Parts>.

climate change on the region's ice sheets and its effect on Japan's marine ecosystems and marine resources; and developing an accurate forecasting system to project the region's sea-ice distribution.¹¹⁵

The 2008 interim report mostly covers scientific aspects of climate change in the Arctic. Emphasis on science and technology is a common strategy among non-Arctic states seeking permanent observer status with the Arctic Council. Like China and South Korea, official Japanese Government documents tend to highlight scientific research objectives while downplaying their interest in natural resources, shipping, and governance regimes. However, where Chinese Government officials have publicly claimed that China is an 'Arctic stakeholder', the Japanese Government has employed a more modest rhetoric of 'participation'. When Matsuo Nishibayashi was appointed Japan's first ever Arctic ambassador in March 2013, the press release stated that 'Japan is located outside the Arctic region, but as a maritime state and one that attaches much importance to global environmental issues, it needs to be appropriately involved in international discussions regarding the Arctic.'¹¹⁶

In order to be accepted as a permanent observer, Japan believes it is necessary to contribute to the Arctic Council, particularly in the field of scientific research. In a statement at the 2012 Arctic Council observer meeting in Sweden, the Senior Vice-Minister for Foreign Affairs, Shuji Kira, asserted that Japan's interest in applying for Arctic Council permanent observer status is to 'further contribute to the Arctic Council by sharing its expertise built upon its years of research and observation of the Arctic' and to participate in working groups.¹¹⁷ Proposals have included offering its Antarctic icebreaker *Shirase* for joint research projects. (The *Shirase* is currently legally restricted to supplying the Japanese Antarctic Research Expedition under NIPR.)¹¹⁸ Japan has also expressed interest in assisting with search-and-rescue operations in the Arctic, yet has been unable to do so because of the jurisdictional boundaries of littoral Arctic states. Japan would have to be invited to participate.

Northern Sea Route

Changes to transport routes have historically entailed redeployment of naval forces and a shift in the balance of economic and political power. If the opening of the NSR follows this historical pattern, vital national interests will be directed towards the high north of the Eurasian landmass.¹¹⁹ If this is the case, Japan wants to be the 'hub' for this new centre of power in Asia. Japan's proximity to the Bering Strait—the entrance to the Northern Sea Route—will give it an advantage over other Asian shipping hubs including Singapore, Hong Kong and Pusan in South Korea. However, the feasibility of the NSR will have to be carefully assessed in determining policy and business activities, according to Dr Shigeki Toriumi of Chuo University.¹²⁰ Research into the feasibility of the NSR—by government,

¹¹⁵ '日本北極会議海報告書' [Japan's Arctic Ocean conference report], Ocean Policy Research Foundation, (海洋政策研究財団), Mar. 2012.

¹¹⁶ 'Appointment of Ambassador in charge of Arctic affairs', Japanese Ministry of Foreign Affairs, 19 Mar. 2013, <http://www.mofa.go.jp/press/release/press6e_000002.html>.

¹¹⁷ Statement by Parliamentary Senior-Vice Minister for Foreign Affairs of Japan at the meeting between the Swedish Chairmanship of the Arctic Council and observer/Ad-hoc observers in Stockholm, Sweden, 6 Nov. 2012, <<http://www.arctic-council.org/index.php/en/about/meetings-overview/observer-meeting-2012>>.

¹¹⁸ Tonami, A. and Waters, S., 'Japan's Arctic policy: the sum of many parts', *Arctic Yearbook 2012*, <http://www.academia.edu/2235263/Japans_Arctic_Policy_The_Sum_of_Many_Parts>.

¹¹⁹ Blunden, M. 'Geopolitics and the Northern Sea Route', *International Affairs* 88: 1 (2012), p. 115–129.

¹²⁰ Toriumi, S., 'The Potential of the Northern Sea Route', *Yomiuri*, 28 Feb. 2011.

research institutes and business—is ongoing. A recent report by the MILT’s Hokkaido Development Bureau emphasized uncertainty surrounding the NSR and its impact on Hokkaido’s port infrastructure.¹²¹

A common view among Japanese shipping specialists is that the much touted ‘rapid melting of the polar ice’ is exaggerated and commercialization of the NSR will take time. Hiroyuki Goda of NYK LINE estimates that, under present circumstances, using the NSR is economical for transporting resources from Scandinavia (iron ore) or the Barents Sea (gas condensate) to Asia, especially China.¹²² When LNG shipments from the Yamal Peninsula commence in 2016, Japan will also become involved in its transportation. According to Goda, the route via the Suez Canal and Indian Ocean is still cheaper for container ships and cargo carriers.¹²³ In 2012, 19 000 ships transited the Suez Canal; only 42 traversed the Northern Sea Route.¹²⁴

Japanese experts see numerous problems with the NSR. The unpredictable ice-free period and slower navigation through icy waters present challenges when transporting time-sensitive cargo. They also suggest that the NSR could be hit by an environmental disaster. Furthermore, ships in the Arctic sea must run on diesel or gas, which equates to between 1.5 to 2 times the units of fuel oil that ships would otherwise use on the standard southern route.¹²⁵ Moreover, ships travelling the icy NSR must undergo costly upgrades to their hull. According to one Japanese expert, Japanese companies would need to hire Russian nuclear icebreakers, as building them themselves would be prohibitively expensive.¹²⁶

Transiting Russian waters would have additional costs. While the NSR may avoid pirates near the Horn of Africa, Russian legislation requires that company’s pay a sizable transit fee to the Russian Government. Foreign ships seeking to use the NSR are required to notify the Russian authorities three months ahead of time, leading some Japanese observers to describe Russian bureaucracy as ‘a bigger obstacle than Arctic ice’.¹²⁷ While the NSR is still a long way to becoming commercially viable, Japanese companies regard the existing Siberian railroads as more effective for transporting goods.¹²⁸

Strategic

While climate change in the Arctic presents a significant economic opportunity, it also presents a potential strategic problem for Japan and other countries in the region. China and South Korea are already becoming more active in the Arctic and have devoted significant resources to scientific observation, energy exploration and sea route development.

Japan’s rivalry with China in the region is expanding into the Arctic. More militant quarters of Japanese society have, in the face of increasing Chinese interest in the Arctic,

<<http://www.yomiuri.co.jp/adv/chuo/dy/opinion/20110228.htm>>.

¹²¹ Masayuki, I., et al. ‘北極海航路について：北海道港湾の可能性に関する検討’ [Northern Sea Route: study on the possibilities for Hokkaido ports], Hokkaido Development Bureau, MILT, 2012, <http://www.hkd.mlit.go.jp/topics/gijyutu/giken/h24giken/pdf_files/gt/gt-06.pdf>.

¹²² Arctic conference notes, obtained by authors. Feb. 2013.

¹²³ Arctic conference notes, obtained by authors. Feb. 2013.

¹²⁴ ‘Gas tanker Ob River attempts first winter Arctic crossing’, BBC News, 25 Nov. 2012, <<http://www.bbc.co.uk/news/science-environment-20454757>>.

¹²⁵ Arctic conference notes, obtained by authors. Feb. 2013.

¹²⁶ Authors’ interview.

¹²⁷ Authors’ interview.

¹²⁸ Authors’ interview.

called for Japan to discuss a defensive strategy with the USA in an effort to protect its interest in the region.¹²⁹ Japan feels that if a sea route through the Arctic to North East Asia becomes available, it is likely that an increased commercial presence would lead to an increased military presence. If this occurs, Japan would then need to develop a new sea-lane defence strategy and improve its coastguard capabilities to address the increased vulnerability of its northern approaches.

According to Dr Kotani of JIIA, Japan's most immediate security concern in the Arctic is Russia: 'If the melting Arctic encourages Russian fleet activities in the northern Pacific, the defense of the Bering Sea may become another area to be covered by a new US–Japan maritime strategy'.¹³⁰ Dr Kotani suggests that Japan would seek US cooperation to defend against Russia in a crisis situation.

Permanent observer to the Arctic Council

Like its two Asian neighbours, Japan's most immediate concern is securing permanent observer status at the Arctic Council. Japan applied for permanent observer status in 2009, citing the importance of Japan's maritime domain and the country's significant scientific, geopolitical and commercial interests in the region. Japan was subsequently welcomed by the Arctic Council as an ad hoc observer. However, Japan holds reservations about the operations of the Arctic Council. Japanese Arctic specialists would like to see the Council broaden its focus from science, technology and the environment to include more legal and governance issues.

Some experts argue privately that Japan should seek a new governance regime for the Arctic because the Arctic Council does not adequately address the issues and concerns of non-Arctic countries. While careful not to question the existing regime in public, Japan, like other non-Arctic states including China, would like to see the Arctic Council recognize the interests of non-Arctic states and that the Arctic is a part of the common heritage of humankind.¹³¹ According to a government adviser, 'The Arctic Council is not an appropriate mechanism to handle issues and concerns of other countries which are not near the Arctic'.¹³² The advisor suggested that a new framework forged between Japan and the United States may better reflect Japanese interests.¹³³

Relations with Arctic littoral states

Among Arctic littoral states, Japanese officials see potential for cooperation on Arctic affairs with Norway and Russia, as well as its traditional ally the USA. As noted above, Japan has recently imported LNG from Norway's Snohvit Arctic Ocean gas field, shipped via the Arctic route. Norway has also sent government delegations to Japan and engaged with Asian countries at international Arctic conferences.¹³⁴

¹²⁹ An editorial in the *Yomiuri Shimbun* went so far as to suggest that: 'it is unavoidable that the Chinese and Russian navies will become more active in seas north of Japan. The government will need to discuss with the United States how to build up Japan's defenses against them', *Yomiuri Shimbun*, Aug. 27, 2012, <<http://www.yomiuri.co.jp/dy/editorial/T120827002806.htm>>.

¹³⁰ Kotani, T., 'High Seas and Rising tides U.S.-Japan Maritime Cooperation', paper presented at Pacific Forum CSIS: Young Leaders, Washington DC, Dec. 2009, p. 21.

¹³¹ Authors' interview, Sep. 2012. See also Takei, Y., 'Who governs the Arctic Ocean?', *Ocean Policy Studies*, Ocean Policy Research Foundation, no. 9, July 2011, p. 75.

¹³² Authors' interview.

¹³³ Authors' interview.

¹³⁴ Authors' interview.

From a geographical perspective, Russia would be a natural Arctic partner for Japan. Russia owns half the Arctic coastline and the lion's share of the region's resources. In December 2012, a Russian LNG tanker made the first-ever Arctic winter voyage from Norway to Japan's Kita-Kyushu through the Arctic Ocean. Yet, Japanese scholars express reservations about increasing Japan's energy dependence on Russia, given ongoing territorial disputes between the two countries. Japanese officials have also expressed concern over Russia's large-scale military exercises which are conducted not far from Japan's northern islands, although a Japanese security expert suggested such exercises are largely aimed at China.¹³⁵ Japanese strategic thinkers have stressed the importance of military and territorial considerations in Arctic affairs, suggesting that a new sea route in the region surrounded by different stakeholders will present a new security dilemma.

Japanese media reports suggest that former Japanese Prime Minister Yoshiro Mori's February 2013 visit to Moscow is evidence that Japan and Russia are working towards improving relations and resolving their territorial disputes. Moscow hopes Japanese technology will help develop its eastern regions into a base for exporting resources to East Asia. It also hopes that settling its territorial disputes will improve its overall security.

While Japan has held talks with Canada on Arctic energy development, Canada's sovereignty claims over islands north of its mainland remain a sticking point for Arctic cooperation. According to a Japanese scholar, Japan's concern is that the claim 'could give legitimacy to China's behaviour in the South China Sea'.¹³⁶

The United States is Japan's long-term ally, and Japan is looking at the possibility of importing shale gas from the USA. The USA frequently came up in discussions of Japan's Arctic strategy, including the assertion that 'Japan can work with the US' in pursuing its Arctic interests.¹³⁷ Kaneda Hiteaki, a retired vice-admiral of the Japanese Maritime Self-Defense Force, suggests that Japan should cooperate closely with the USA on Arctic joint defence to both strengthen the current USA–Japan alliance and 'counter the strengthening of Sino-Russia relationship'. If closer cooperation were to materialize, the possibility of a joint Russia–Japan–USA Arctic security and defence agreement with a focus on nuclear deterrence would become more likely, according to Hiteaki.¹³⁸

At an energy security conference organized by the Chinese and Norwegian MFAs in 2010, a Japanese participant was impressed by Norway's proactive engagement: 'I think Norway is the most proactive Nordic country reaching out to Asian countries. Sweden is also reaching out. But I've never heard of Denmark . . . at all'. He added, 'So far we have very limited cooperation with Denmark'. Japanese experts suggested that the Kingdom of Denmark should reach out to Japan because 'we don't know much about Greenland.'

¹³⁵ Authors' interview.

¹³⁶ Authors' interview.

¹³⁷ 'Editorial: Abe must translate Mori Moscow visit into fresh start on bilateral relations', *Mainichi*, 23 Feb. 2013, <<http://mainichi.jp/english/english/perspectives/news/20130223p2a00m0na009000c.html>>.

¹³⁸ Kaneda, H., '北極海とわが国の防衛' [The Arctic Ocean and Japan's defence], in *北極のガバナンスと日本の外交戦略* [Arctic governance and Japan's foreign policy], JIIA Research Report, Mar. 2013, <http://www2.jiia.or.jp/pdf/resarch/H24_Arctic/H24_Arctic.php>.

4. The Arctic activities and policies of South Korea

Summary

The South Korean Government sees its Arctic programme as a means to enhance the country's international profile and to play a role in global governance commensurate with its economic standing. South Korea hopes to gain political capital by being active in the realm of climate change, in particular, and enhance its commercial interests in shipping and resources in the region.

South Korea is a resource-poor country heavily reliant on energy imports and with a significant proportion of its GDP made up of exports. It is also the world's largest ship builder. South Korean industry representatives and officials see medium- and long-term potential in Arctic resources and use of the Northern Sea Route, but the current consensus is that the NSR is not commercially viable in the short term.

From the South Korean Government's perspective, a key goal of the country's polar research is to gain a seat at the table in a new legal order governing polar affairs. Achieving permanent observer status on the Arctic council is the country's 'most important' Arctic priority, which it hopes to achieve at the Council's ministerial meeting in May 2013. South Korea also hopes to identify an Arctic littoral state with which it can form a mutually beneficial partnership.

Despite its ambitions in the region, Seoul lacks a unified national strategy on Arctic affairs. Intergovernmental collaboration on Arctic affairs remains fragmented and this is exacerbated by the absence of a central authority responsible for coordinating the country's Arctic policy.

Drivers of South Korea's Arctic interests

In 1996, South Korea joined the Organisation for Economic Co-operation and Development (OECD), having risen from poverty in the 1950s after the Korean War when the country was as poor as Ghana. Today, South Korea is the 15th largest economy in the world and is home to global companies such as Samsung, Hyundai and Kia. While South Korea has traditionally paid little attention to the Arctic region, it now hopes to exploit mid- and long-term economic opportunities opening up in the region. It also seeks involvement in the Arctic as part of a broader effort to enhance its profile in the international community.

Commercial

South Korea's interests in the Arctic, like those of its neighbours, are linked to resources and shipping.¹³⁹ South Korea possesses few natural resources of its own and imports 100 per cent of its oil. In 2011, the country was the world's second largest importer of LNG, the third largest importer of coal, and the fifth largest importer of crude oil.¹⁴⁰ Academic papers and media reports emphasize the possibility of the Northern Sea Route reducing prices for Arctic oil and gas in East Asia. The promise of improved shipping and

¹³⁹ Brady, A.-M., and Kim, S., 'Cool Korea: Korea's Growing Antarctic Interests'. Unpublished manuscript, used with permission, p. 32.

¹⁴⁰ See <http://www.eia.gov/countries/analysisbriefs/South_Korea/south_korea.pdf>.

opportunities for extracting natural resources helps justify the country's Arctic program to a domestic audience.

South Korea is not just concerned with imports via the NSR. The opening of the Arctic Ocean to international shipping is also of interest to the country's domestic manufacturing export industries. In 2011, the value of South Korean exports accounted for 56.2 per cent of the country's GDP; South Korea's economic performance is closely aligned with its ability to export manufactured goods to developed markets.¹⁴¹ The NSR, in this respect, represents a significant economic opportunity for South Korean industry to shorten the shipping distance for products bound for European and North American markets.

International standing

In recent years, South Korea has sought to expand its international influence, to create, as the 2008–13 administration of President Lee Myung-bak coined it, a 'Global Korea'.¹⁴² South Korea's global outreach stems from an awareness of its increasing economic stature and pressure to play a more active role in the international community. The Korean-born United Nations Secretary General, Ban Ki-moon, has criticized the country's limited international contributions relative to the size of its economy.¹⁴³

One area in which South Korea has sought to raise its international profile is green growth and climate change, including through the Global Green Growth Institute, headquartered in Seoul, and the Green Climate Fund, which will have headquarters in Incheon.¹⁴⁴ South Korea will also host the World Water Forum in 2015. The issue of climate change has been, and continues to be, a high political priority in South Korea.

The South Korean Government sees its Arctic programme as a means to enhance its international profile and play a role in global governance commensurate with its economic standing.¹⁴⁵ Indeed, Park Bang-joo, a veteran science journalist with the *Dong-a Ilbo* newspaper, argues that South Korea's Arctic programme is less about economic gain and more about national pride. 'It's like the US exploring the universe', says Park. 'Americans are proud of their country. That's the compensation.'¹⁴⁶

South Korea's Arctic actors

Government

There are currently five government ministries responsible for various aspects of South Korea's Arctic affairs.

¹⁴¹ 'S. Korea's ratio of exports to GDP hits new record last year', *Yonhap News Agency*, 8 Mar. 2013, <<http://english.yonhapnews.co.kr/business/2013/01/08/77/0501000000AEN20130108002900320F.HTML>>.

¹⁴² South Korea has hosted international sporting events, such as the Olympics (1988) and the World Cup (2002), and international summit meetings such as the G20 summit (2010). After these events, South Korean media often ran long pieces examining how these events helped South Korea to be 'recognized' by the world.

¹⁴³ '선진그룹으로 성장한 한국이 이제는 국제사회의 기대에 걸맞은 역할을 해야 한다' [South Korea has become a developed country. It should play a commensurate role to meet the expectation of the international community], UN chief Ban Ki-moon's speech in Seoul on 10 Aug. 2011, *Dong-A Ilbo*, 12 Sep. 2009, <<http://news.donga.com/3//20090912/8808584/1>>. Also see similar remarks by UN chief at <<http://cafe.daum.net/YesKim/MY9Q/17?docid=rHdQ|MY9Q|17|20111109120732>>.

¹⁴⁴ Krukowska, E., 'UN's Green Climate Fund plans headquarters in South Korea', *Bloomberg*, 21 Oct. 2012, <<http://www.bloomberg.com/news/2012-10-20/un-s-green-climate-fund-plans-headquarters-in-south-korea.html>>

¹⁴⁵ Brady and Kim, p. 18.

¹⁴⁶ Brady and Kim, p. 35.

Arctic affairs generally come under the jurisdiction of the Ministry of Land, Transport and Maritime Affairs (MLTMA), according to a foreign ministry official. MLTMA assumed responsibility for maritime affairs after the Ministry of Maritime Affairs and Fisheries (MOMAF) was dismantled in 2008. MOMAF has recently been reinstated as part of a restructure of government ministries under new president Park Geun-hye. MOMAF will again assume responsibility for the Korea Polar Research Institute (KOPRI).

MLTMA is responsible for South Korea's five-year plan for Arctic research activity and for its annual plan for cooperation with other relevant ministries and KOPRI. The five-year plan for polar research must be endorsed by the National Commission of Science and Technology.¹⁴⁷ MLTMA also supports infrastructure including the icebreaker *Araon* and a second Antarctic base with its research and development funds.

The Ministry of Foreign Affairs and Trade (MOFAT) represents South Korea in the Arctic regional forums, and its legal bureau is active in efforts to achieve permanent observer status within the Arctic Council.¹⁴⁸ MOFAT produces regular policy papers on South Korea's participation in Arctic affairs, and also promotes the country's bilateral strategic cooperation with other nations in polar scientific research and resource development. The Ministry of Education, Science and Technology (MEST) and the Ministry of Environment (MOE) are also involved in supporting scientific and educational exchanges.

The Ministry of Knowledge Economy (MKE) is a key player in Arctic resource development and energy supply. The presidential office under ex-president Lee Myung-bak consulted MKE prior to Lee's visit to Greenland. MKE was also the South Korean signatory to an MOU with Greenland on joint geological surveys, resource exploration and technological cooperation. In 2011, MKE announced a plan to jointly develop gas projects with Canada. MKE is also active in Korea's resource diplomacy in other parts of the world, including Africa.

In total, South Korea currently spends US\$50 million annually on polar activities, of which US\$20 million is devoted to the Arctic.¹⁴⁹

Policy coordination problems

The lack of a central authority in charge of polar affairs has been cited as an impediment to Seoul's pursuit of an integrated approach to its scientific, economic and political interests in the Arctic.¹⁵⁰ Seoul is ambitious in its pursuit of Arctic involvement but lacks a unified national strategy on Arctic affairs. A lack of experience and frequent job rotation in the various government agencies involved with Arctic affairs makes them heavily dependent on KOPRI for advice.

Yet some government officials directly involved in Arctic affairs see this division of labour as appropriate.¹⁵¹ 'It is the kind of area where a single ministry cannot do the whole job', said a foreign ministry official. 'While there is no leading government agency in South Korea with regard to the Arctic, the work-sharing among different stakeholders is relatively clear'.¹⁵²

¹⁴⁷ Brady and Kim, p. 7.

¹⁴⁸ Authors' interview, July 2012

¹⁴⁹ Brady and Kim, p. 10.

¹⁵⁰ Brady and Kim, p. 9.

¹⁵¹ Interview with authors, July 2012

¹⁵² Interview with authors, July 2012

Research institutions

Korea Polar Research Institute (KOPRI). KOPRI is South Korea's leading research body on Arctic affairs.¹⁵³ Located in Incheon and employing some 200 researchers and staffers, KOPRI has two polar research bases, the King Sejong Station in Antarctica and the Arctic Dasan Station in Svalbard, Norway. KOPRI is also responsible for the activities of the *Araon*, a 110-meter long high-tech multi-purpose icebreaker. Costing US\$1 billion, it was completed in 2009 and has since been deployed annually to the Arctic in scientific research assignments in collaboration with nine other countries and scientists from Arctic states onboard. KOPRI is staffed principally by scientists and does not specialize in strategic or security policy.

KOPRI was originally the Polar Research Laboratory of the Korea Ocean Research and Development Institute (KORDI, now the Korean Institute of Ocean Science and Technology, KIOST) but became a fully fledged research institute in 2003. KOPRI is currently under the authority of MEST, but enjoys a considerable amount of operational autonomy. KOPRI's objective is to contribute to the country's scientific and economic interests in the Arctic and Antarctica, and to improve South Korea's international standing through polar research.

KOPRI's responsibilities include research on the polar regions and environmental change, collaborating with domestic and international institutions on polar research, and raising the profile of the polar regions among the South Korean public. KOPRI experts have contributed to South Korean representation at international climate change conferences. In March 2011, KOPRI hosted the Arctic Science Summit Week in Seoul. It also organizes an annual trip to Dasan Station in Norway for middle- and high school students.

Other institutions. South Korea's other research institutes with an Arctic focus include KIOST and the Korea Maritime Institute (KMI). KIOST's main functions include research to promote the efficient use of coastal and ocean resources and scientific research in polar regions. It also coordinates and participates in international oceanographic research projects.

Operated by the South Korean Government through the Office of Government Policy Coordination, the KMI develops South Korean policies on marine affairs and fisheries and has 180 staff.

The Korea Hydrographic Oceanographic Administration (KHOA), a research body under the under the MLTMA founded in 1949 as a naval research unit, also conducts maritime research.

Conferences. In recent years, South Korea has held a number of domestic and international conferences on Arctic affairs. In November 2011, the MLTMA, together with Youngsan University Institute for Global Logistics, hosted an international conference to promote the Northern Sea Route with Russian and Norwegian experts. In May 2012, South Korea hosted the 18th International Symposium on Polar Sciences and in June 2012, it hosted the 6th World Ocean Forum on 'blue frontiership and ocean governance'.

¹⁵³ See Korea Polar Research Institute website, <<http://www.kopri.re.kr/exclude/userIndex/engIndex.do>>.

South Korea's Arctic policies

The Northern Sea Route

South Korean industry experts foresee mid- and long-term economic opportunities as the ice-free summer period increases and the NSR becomes economically viable. When the NSR is navigable, the transit distance between Rotterdam and Pusan, South Korea's largest seaport, will be reduced by 37 per cent (from 20 100 km to 12 700 km) and the transit time will be reduced from 30 to 20 days.

South Korea is the world's largest shipbuilder, and expects changes in the Arctic to increase demands for icebreakers, oil and LNG tankers, and sea-floating plants in the medium- to long-term. It also sees opportunities to participate in the extraction of natural resources.¹⁵⁴ Yet South Korean consensus holds that the NSR is not commercially viable in the short-term. Acknowledging that the navigable period is expanding, a government researcher nevertheless suggests that at present 'it is still too short a period to be relied on for commercial use.'¹⁵⁵ Even during summer months, drift ice also presents a danger when navigating the NSR. South Korea's maritime industries are therefore adopting a cautious approach, with no plans to build a specialized commercial fleet.

Using the NSR could also provide an alternative to transporting gas from Russia via a pipeline through North Korea. Discussion of a trans-Korean pipeline began in the 1990s, but concerns over possible North Korean sabotage increased in the wake of the sinking of the South Korean corvette, *Cheonan*, and the shelling of Yeonpyong Island in 2010.¹⁵⁶ After the two fatal incidents, then South Korean President Lee Myung-bak urged Russia to explore alternatives.¹⁵⁷

South Korea also hopes to extract Arctic natural resources in cooperative arrangements with one or more Arctic states. Yet such plans are still at a nascent stage. A foreign ministry official remarked that 'we don't even know what quantities of natural resources are out there.' He complained that while speculative figures have been floated, countries in the Arctic region 'have yet to share the information with us.'¹⁵⁸

South Korea has also announced its plans to deploy a helicopter aboard the *Araon* for search and rescue operations in the summer of 2013.¹⁵⁹ In December 2011, the *Araon* rescued a Russian trawler off the coast of Antarctica.¹⁶⁰ The rescue attracted domestic media coverage that reflected positively on the country's polar programmes.

Arctic Council membership

Since taking office in February 2013, new South Korean president Park Geun-hye has elevated Arctic affairs to a national priority by designating Arctic Council permanent observer status among '140 national agenda tasks' for her presidency. In March 2013,

¹⁵⁴ Jin, D. and et al. 'Arctic Governance and International Organization: Focused on the Arctic Council', 2010, p.17, manuscript sent to authors.

¹⁵⁵ Interview with authors, July 2012.

¹⁵⁶ 'South Korea', U.S. Energy Administration, 17 Jan. 2013, <www.eia.gov/countries/analysisbriefs/South_Korea/south_korea.pdf>.

¹⁵⁷ 'S.Korea, Russia agree to push gas pipeline through N.Korea', *Chosun Ilbo*, 3 Nov. 2011, <http://english.chosun.com/site/data/html_dir/2011/11/03/2011110300708.html>.

¹⁵⁸ Authors' interview, July 2012.

¹⁵⁹ 'Korea's Coast Guard to send helicopter to Arctic region', *Korea Times*, 21 Sep. 2012, <http://www.koreatimes.co.kr/www/news/nation/2012/09/117_120582.html>

¹⁶⁰ 'Korean icebreaker *Araon* rescues Russian vessel', *Chosun Ilbo*, 26 Dec. 2011, <http://english.chosun.com/site/data/html_dir/2011/12/26/2011122600823.html>

KOPRI and the foreign ministry hosted a forum on ‘Arctic research and policy in the new age of an opening Arctic’, attended by ambassadors from all Arctic Council member countries except for Iceland. Peter Lysholt Hansen, Ambassador of the Kingdom of Denmark, was among the participants. The conference aimed to garner support for South Korea’s bid for permanent observer status at the Arctic Council. South Korea discussed its planned contributions to the Arctic and took the opportunity to hear views from the Arctic Council and incorporate them into its Arctic policy.

From the government’s perspective, a key goal of South Korea’s polar research is to gain a seat at the table in a new legal order governing polar affairs. Officials and researchers argue that as the Arctic ice melts, new rules for shipping and fishing are needed and that South Korea should be present when new rules are formulated. A South Korean foreign ministry official asserted that achieving permanent observer status on the Arctic council is the country’s ‘most important’ Arctic priority, which it hopes to achieve by the Council’s ministerial meeting in May 2013.¹⁶¹

Neither permanent observers nor ad hoc observers enjoy voting privileges, but South Korea believes that permanent observer status is an important step in gaining influence in Arctic affairs. A foreign ministry official with direct involvement in Arctic affairs described ad hoc observer status as being ‘invited to a party, yet you have to enter from the backdoor’.¹⁶²

Several government officials view the Arctic Council as ‘very exclusive’ and achieving permanent observer status by May 2013 to be a challenge.¹⁶³ A South Korean official suggested that Arctic Council members want to limit the number of observers, especially given new interest from states including India.¹⁶⁴ Foreign ministry officials interviewed for this study expressed hope that South Korea could participate in Arctic governance and that the Arctic Council will take a more open attitude toward non-Arctic states.¹⁶⁵

Relations with Arctic littoral states

While South Korea sees its Arctic affairs primarily from a non-military perspective, many experts in South Korea dealing with Arctic issues view the interests of littoral states as principally driven by military and geopolitical factors. According to a South Korean foreign ministry official, the political and military aspects are intentionally downplayed at official meetings: ‘They tend to emphasize environmental or scientific topics. But you know it’s a game that they play.’¹⁶⁶

Officials interviewed noted that South Korea hopes to identify an Arctic littoral state with which it can form a mutually beneficial partnership. Among the Arctic stakeholders, South Korea has maintained a robust working relationship with Norway, with South Korea operating a research base at Ny-Ålesund. Dr Dongmin Jin, director of the Policy Development Department of KOPRI, also cited cooperation on Arctic affairs with Canada and visits to South Korea by Canadian experts. South Korea has also been intensifying its cooperation with the United States in the Arctic, especially since South Korea launched its

¹⁶¹ This target was announced in a speech by KOPRI chairman Lee Hong-geum at a conference, ‘The challenges of the Arctic and Korea’s response’, 24 Nov. 2009. Conference video is available at <http://www.youtube.com/watch?v=gfOaE_iQy4U&feature=relmfu>.

¹⁶² Authors’ interview, July 2012.

¹⁶³ Authors’ interview, July 2012.

¹⁶⁴ Authors’ interview, July 2012.

¹⁶⁵ Authors’ interview, July 2012.

¹⁶⁶ Authors’ interview.

own icebreaker, *Araon*, in 2009. South Korea and the USA held their first-ever 'Meeting of the US–Korea Environmental Cooperation' in mid-February 2013 in Washington, DC, at which the Arctic was on the agenda.

Professor Kim Dal-joong, an influential political strategist from Yonsei University in Seoul, has suggested Russia as a potential Arctic partner for South Korea.¹⁶⁷ Indeed, South Korea has already started exporting icebreakers to Russia for commercial use. Samsung Heavy Industries completed the first ice-enforced oil tanker in 2007 and has already sold three of these 'Arctic shuttle tankers' to the Russian shipping company Sovcomflot to transport crude oil from its Arctic oilfields.¹⁶⁸ Russia operates the Samsung-produced Arctic shuttle tankers in the Barents Sea, which is a notoriously challenging environment for ship operations. Although some media reports say Samsung expects to receive orders for at least 20 Arctic shuttle tankers by 2015, a senior official with Samsung Heavy Industries, contacted by the authors, said that the company has not received any additional orders for use in the Arctic Sea. In this case, South Korea's expertise in polar shipbuilding has facilitated its engagement with Russia on Arctic issues.

South Korea's relations with the Kingdom of Denmark have been strengthened in recent years. In 2011 during a state visit by South Korean President Lee Myung-bak to the Kingdom of Denmark, the two governments signed the Joint Statement on the Establishment of a Strategic Partnership covering political and security, economic and trade, social and cultural, and international cooperation.¹⁶⁹ The section covering international cooperation in particular noted the two governments' mutual interests in a number of international issues, such as the need for closer cooperation on combating piracy and fostering development.¹⁷⁰ The Joint Statement also provided the foundations for the establishment of the Green Growth Alliance with the aim of setting ambitious national strategies for green growth. The second meeting of the alliance was held in Seoul in May 2012 and attended by Danish Crown Prince Frederik.¹⁷¹ South Korea has also increased its cooperation with Greenland, with the two sides signing four memorandums of understanding and a letter of intent covering polar research and mineral exploration and development in 2012.

Yet despite the flurry of cooperative activities between the Kingdom of Denmark and South Korea, the Kingdom of Denmark was not identified by key South Korean Arctic officials as among the major Arctic states that have been proactively engaging South Korea on specifically Arctic issues.¹⁷² While praising Canada's outreach on Arctic affairs, Dr Dongmin Jin, director of the Policy Development Department of KOPRI remarked in an interview 'I don't think we've had much cooperation with Denmark'.¹⁷³ Both South

¹⁶⁷ Remarks at a conference, 'Challenges of the Arctic and Korea's Response', Seoul, 24 Nov. 2009.

¹⁶⁸ 'Sovcomflot names first in a series of Arctic tankers', Sovcomflot, 18 Dec. 2007. <<http://www.unicomcy.com/news.php?id=16>>. Arctic shuttle tankers are vessels that combine the functions of an icebreaker and an oil tanker (they can carry 70 000 DWT oil).

¹⁶⁹ Joint Statement on the Establishment of a Strategic Partnership between the Government of the Republic of Korea and the Government of the Kingdom of Denmark, <<http://sydkorea.um.dk/~media/Sydkorea/Images/Documents/Basic%20Info/JointStatement.pdf>>.

¹⁷⁰ Joint Statement on the Establishment of a Strategic Partnership.

¹⁷¹ Agreement on the Korean-Danish Green Growth Alliance between the Government of the Republic of Korea and the Government of the Kingdom of Denmark, <http://www.mofat.go.kr/incboard/faimsif/treaty_popup_view.jsp?ITEM_ID=HQKP_1350461257419&ITEM_PARENT_ID=HQKP_1349663343266>.

¹⁷² 'Korea, Denmark boost green growth alliance', *Korea Herald*, 14 May 2012.

¹⁷³ Authors' interview.

Korean officials and the general public are relatively unfamiliar with Greenland's geographical location and its status in the Kingdom of Denmark.

President Lee Myung-bak's September 2012 visit to Greenland and Greenlandic Prime Minister Kuupik Kleist's December 2012 visit to Seoul received wide media coverage in South Korea and boosted public awareness of the Kingdom of Denmark. A foreign ministry official said that the high level visits had a significant impact on experts' awareness of the Kingdom of Denmark.¹⁷⁴ Kleist's statement of support for South Korea's bid to join the Arctic Council was well received in South Korea. Unfortunately, Kleist's visit to Seoul did not take place at the most ideal time, as it was just days before South Korea's presidential election.

¹⁷⁴ Authors' interview.

5. Conclusions and recommendations

Potential cooperation between China, Japan and South Korea

China, Japan and South Korea understand the benefits of cooperating on scientific research in the Arctic region. They also acknowledge the potential use of a united front policy in pursuing their quest for permanent observer status of the Arctic Council. Yet historical grievances, ongoing territorial disputes and deep suspicions are all substantial obstacles to cooperation.

An ice-free Arctic will present new opportunities for deepening cooperation among North East Asian states. Indeed, as Linda Jakobson argued in 2010, as non-Arctic states, China, Japan and South Korea are all in the same boat; each of them stands to benefit enormously from shorter commercial shipping routes and possible access to new fishing grounds and other natural resources. A unified Arctic strategy would be in their mutual interest; finding ways to jointly use an ice-free Arctic has the potential to create a genuine win-win situation for North East Asian states. Yet reality continues to defy this outlook.

‘At present, most cooperation among the three nations is done at non-governmental areas such as scientific research’, said a South Korean foreign ministry official, noting a lack of cooperation at the government level.¹⁷⁵ KOPRI researcher Shin Hyung-chul sees cooperation on pure scientific research as more promising than government-level cooperation. Shin says of Arctic research that ‘it’s financially burdensome for a single country to do everything’, and that scientists from different countries should coordinate.¹⁷⁶ Indeed, the first South Korean scientist to reach the Arctic did so in 1999 onboard a Chinese research ship, while a Japanese scientist was onboard the South Korean icebreaker *Araon* during its Arctic transit in the summer of 2012.

North East Asian states have made efforts to increase their cooperation with one another on Arctic issues. In 2004, South Korea took the lead in organizing the Asian Forum for Polar Sciences (AFOPS), with China and Japan as the other initial participants. However, there is yet to be a trilateral Arctic research initiative among the three countries.

The cooperation between China and South Korea has been more active than that between China and Japan. In May 2008, the South Korean Ministry of Education, Science and Technology signed a ‘Memorandum of Agreement to Enhance Cooperation for Polar Science and Technology’ with its Chinese counterpart, based on the mutual recognition that their polar development lagged behind leading Western states.¹⁷⁷

In contrast, when a Japanese security expert was asked about the possibility of initiating cooperation between Japan and China, he replied bluntly, ‘No’. Yet such cooperation has a precedent. Dr Yang Huigen, the current director of the Polar Research Institute of China (PRIC), spent 17 months in 1992–93 in Japan carrying out Aurora observations at the Antarctic Syowa Station through collaboration between PRIC and NIPR. From 1998 to 2000, he returned to Japan and conducted post-doctoral studies at NIPR in Tokyo. As a

¹⁷⁵ Authors’ interview.

¹⁷⁶ Authors’ interview.

¹⁷⁷ Brady and Kim, p. 89. ‘한국 교육과학기술부와 중국 과학기술부가 27일 체결한 ‘극지 과학기술 협력강화 양해각서’는 극지개발 경쟁에서 서방 선진국에 상대적으로 뒤져 있는 양국이 한 단계 도약할 수 있는 계기가 될 것으로 기대된다’ [On 27 May 2008, The Ministry of Education, Science and Technology signed a ‘Memorandum of Agreement to Enhance Cooperation for Polar Science and Technology’ with its Chinese counterpart, based on the mutual recognition that both Korea and China have been left behind by the Western leading nations in the polar development competition], *Yonhap*, 27 May 2008, <http://www.chosun.com/site/data/html_dir/2008/05/27/2008052701519.html>.

Japanese speaker and one of China's foremost polar scientists, Dr Yang would be in an advantageous position to initiate genuine collaboration between the two countries, if the political climate permitted.¹⁷⁸

At least one Japanese polar scholar expressed hope for further cooperation: 'Cooperation is the right way in terms of forming a joint position toward the Arctic Council. But at the moment, that's not happening'.¹⁷⁹

Potential cooperation between the Kingdom of Denmark and North East Asian states

There are numerous ways in which the Kingdom of Denmark can cooperate with China, Japan and South Korea on Arctic issues. The Kingdom of Denmark has good relations with all three countries, so there are no political impediments to a much more robust Arctic cooperation. It is in the interests of the Kingdom of Denmark to raise its profile in this dynamic and economically vibrant region. Strengthening Arctic cooperation is certainly one effective avenue. Chinese companies, in particular, are eager and have the capacity to invest abroad. Moreover, collaboration with non-Arctic states is essential to ensure the protection of the fragile environment once shipping becomes a reality along the Arctic sea routes. Lastly, joint research efforts with the North East Asian countries could result in the development of new solutions to the Arctic's many potential risks and problems.

The reality of the melting Arctic has caught the attention of policymakers in China, Japan and South Korea to varying degrees and in part for different reasons, but in all three countries industry representatives across the board are still wary of investing in the Arctic. Many question whether the Arctic will genuinely offer realistic business opportunities. Therefore, the best way forward for the Kingdom of Denmark is to, first, strengthen communication on Arctic issues at the political level; second, increase scientific cooperation in targeted areas; third, provide expertise and even training on specific skills needed in the Arctic; fourth, pursue joint development projects involving researchers and those companies that have already taken an interest in the Arctic, especially in Greenland; fifth, contribute to raising an awareness among the general public in North East Asian countries of the Arctic, with the Kingdom of Denmark at the fore.

All five pathways are elaborated on below, accompanied by some country-specific suggestions.

Strengthen communication on Arctic issues at the political level

None of the three North East Asian countries has released an Arctic strategy and their Arctic policies are still in a nascent stage of formulation. In all three countries there is growing awareness among policymakers and Arctic experts of the significance of the Arctic and for the need, as an Arctic outsider, to forge closer cooperation with an Arctic state to strengthen their country's involvement in Arctic developments and, at a minimum, to keep abreast of evolving Arctic geopolitics. In all three countries there is an eagerness to learn about the Arctic. It is still a new focus for the vast majority of policymakers in China, Japan and South Korea, and, notwithstanding a small group of specialists, in the researcher community as well.

¹⁷⁸ 'Interview of Dr. Huigen Yang Director of the Polar Research Institute of China and Leader of CHINARE', *SciencePoles*, 5 Jan. 2009, <http://www.sciencepoles.org/articles/article_detail/interview_of_dr_huigen_yang_director_of_the_polar_research_institute_of_china<http://blog.daum.net/hivision21/12542041>>

¹⁷⁹ Authors' interview.

In Japan and South Korea, policymakers speak openly about the need to forge an Arctic partnership with one specific Arctic state. Neither country has yet identified the prospective 'Arctic partner'. (China, as a large rising major power, is not looking to have just one Arctic partner but can be expected to strengthen cooperation in Arctic-related areas with all the smaller Nordic countries.) Canada, Norway and Russia were without exception mentioned in research interviews in Seoul and Tokyo as the most likely prospective Arctic partners. In this regard the Kingdom of Denmark needs to raise its profile as an Arctic state. The Kingdom of Denmark should approach the governments of Japan and South Korea to discuss what precisely an 'Arctic partnership' could entail. A useful initial step would be to co-organize and co-sponsor an Arctic conference in Seoul or Tokyo or both with the specific intent of examining overlapping interests and compatible research areas.

The Kingdom of Denmark is perceived among officials in North East Asian countries as a less visible Arctic Council state than Norway, Sweden or Finland. This came up in numerous research interviews with officials in Beijing, Seoul and Tokyo. The Kingdom of Denmark needs its own annual flagship Arctic conference, to which it would also invite specialists from North East Asian countries. The conference venue could alternate between Aarhus, the Faroe Islands and Nuuk. In most of the Arctic states at least one major Arctic conference is held annually, often with at least partial support from the government in addition to having corporate sponsors. An example was the 6th Annual Arctic Dialogue hosted by the High North Centre for Business and Governance of the University of Nordland in Bodo, Norway; co-hosted by the International Institute of Energy Politics and Diplomacy (MIEP) at MGIMO University in Moscow, Russia; and organized by HBW Resources. It is a forum meant to foster discussion and increase information sharing on issues of resource development in the High North, bringing together major Arctic players concerned with Arctic development including senior political leaders, industry executives, whaling captains, fishing communities, academia, representatives of indigenous and non-indigenous Arctic communities, and regional politicians.

Due to the rapidly growing interest in all three North East Asian countries toward the Arctic, there is a growing demand for outreach activities. With relatively modest monetary investment and a manageable amount of effort, the Kingdom of Denmark's Arctic know-how can be promoted via small-scale Arctic seminars or workshops on Arctic issues. Some experiences which have received positive feedback from specialists in North East Asia include the following.

In November 2011, the Finnish MFA dispatched its Arctic Ambassador to Beijing, Seoul and Tokyo to explain Finland's position on Arctic issues as well as to elaborate on Finland's Arctic plans. In closed-door meetings with policymakers in each capital as well as at a small, open seminar the envoy spoke about Finland's Arctic strategy and Finland's views on the Arctic's geopolitical dimensions. Other Finnish experts travelling with him introduced Finnish Arctic know-how in the fields of energy, shipping, tourism and science and technology.

In May 2012 the MFAs of Finland and Norway provided funding for the first-ever international workshop on Arctic issues to be organized in China. Finland and Sweden sent their Arctic ambassadors to this SIPRI workshop, which included panels on geopolitics, shipping opportunities and Nordic cooperation. (The Kingdom of Denmark's ambassador to Beijing Friis Arne Peterson attended; Norway was represented by a junior official because of the continuing frosty relations between China and Norway.) Representatives of several Chinese Government ministries and agencies attended as observers. On the margins

of the SIPRI workshop the two Arctic ambassadors had meetings with Chinese Arctic officials.

In February 2013 Sweden's Arctic Ambassador spoke at the first-ever seminar of the Japan Institute for International Affairs focusing wholly on Arctic issues. The Danish foreign minister spoke on the Kingdom's Arctic policy at the Japan National Press Club in October 2012.

Norway is viewed in Seoul and Tokyo as an especially active Arctic state. Not only is the government perceived as sponsoring more Arctic-related activities than other Nordic countries, Norway's Arctic image is boosted by its unofficial roving Arctic envoy in the person of Felix Tschudi of Tschudi Shipping. Tschudi gives presentations throughout North East Asia on the importance of preparing for commercial shipping to begin in the Arctic and through his tireless efforts he has single-handedly raised Norway's overall Arctic profile.

With the exception of an energy conference in Beijing in 2010, sponsored by the Norwegian Government and attended by 100 Chinese people from many different sectors, each of the above-mentioned events involved just 20–30 people. This reflects the fact that the Arctic is not yet high on any of the North East Asian countries' agenda. But even these small-scale outreach events, to which Arctic scholars and officials were invited, have been noted positively by the officials dealing with Arctic issues in Beijing, Seoul and Tokyo. Now is the right moment to review the Kingdom of Denmark's existing approach, enhance existing engagements, look for new opportunities and seek to maximize its potential in the region.

There are few Arctic issues in which there is a strong convergence of interest between the Kingdom of Denmark and all three North East Asian countries. One is the bid for permanent observer status in the Arctic Council by China, Japan and South Korea. The Kingdom of Denmark has officially endorsed all three applications, and Ambassador Peterson's supportive statements and speeches have received media attention in China and elsewhere. However, the Danish Government should use the remaining months before the May 2013 ministerial meeting to lobby its Arctic Council colleagues on the behalf of these three applicants.

Arctic Council members can protect their interests in the Arctic while also supporting permanent observer status for China, Japan and South Korea. In backing their applications, Arctic Council members would give up little in the way of direct influence on Arctic matters, while still benefiting from substantial discussions with these three countries to better understand their positions and intentions. Although the Arctic is nowadays mentioned in political consultations between the Kingdom of Denmark and each of these three countries, the Arctic remains a marginal issue in official discussions. Furthermore, engaging the three North East Asian states more deeply in Arctic Council activities will encourage the applicants to pay serious attention to legitimate environmental concerns of the Arctic Council members pertaining to shipping and resource exploitation in the fragile Arctic environment.

The initiation by the Danish Government of separate Arctic dialogues with the governments of China, Japan and South Korea is another way to markedly raise the Kingdom of Denmark's political profile as an Arctic state. Each dialogue should include participants not only from the respective foreign ministries, but also from other Arctic-related agencies as well as from academia. In other words, the dialogue would fit the definition of a track 1.5 dialogue, including both officials and specialists, rather than being a formal government-to-government dialogue.

Norway and Canada are the only countries to have thus far engaged with China in a formal bilateral dialogue on Arctic issues. At the first China–Norway dialogue meeting in June 2009, climate change and polar research were identified as the issues of strongest common interest, although the two sides also exchanged views on Arctic policies, energy issues and sea routes. China has been cautious about initiating formal dialogues on the Arctic, but the precedent of Canada and Norway should make it easier for Copenhagen to pursue one. Climate change, shipping, maritime logistics, and academic exchanges are good starting points.

Based on the experience of one or two bilateral dialogues with each of the North East Asian countries, the Kingdom of Denmark could further solidify its Arctic reputation—and be well placed to become the ‘Arctic partner of choice’ of Japan and South Korea—by embarking on an innovative Kingdom of Denmark+3 cooperation initiative. In the words of one Japanese Arctic expert, ‘A faraway, third-party country could bring us together.’ Japan realises that if it tries to take the lead the other two Asian countries are not likely to follow. This is due to deep historical animosities and mistrust among the three. The Kingdom of Denmark, as an outsider, can lead and initiate a strategic Arctic partnership bringing together the three North East Asian countries. As a global leader in shipping, the Kingdom of Denmark would be looked on as a natural convener of a partnership focusing on all aspects of shipping, including logistics and search-and-rescue operations. Both are of keen interest to Arctic specialists in North East Asia.

A second issue in which there is a strong convergence of interest between the Kingdom of Denmark and all three North East Asian countries pertains to various Russian tariffs, that are anticipated for passage through its territorial waters along the Northern Sea Route. Of course this is regarded as a sensitive issue, and one to be deliberated on by the Arctic Council. But the Kingdom of Denmark could raise its profile by taking the lead to initiate a series of track 1.5 consultations, including non-Arctic states, to discuss, first, the principle of freedom of navigation in the Arctic from the perspective of legal scholars, and second, the question of responsibilities and obligations for those using the NSR. The specific issue of Russian tariffs could be approached after the same set of officials and scholars from the respective countries had gained a level of familiarity and trust. (This approach has successfully been used at many track 1.5 forums when dealing with sensitive topics.) In all three North East Asian states, officials pinpoint this question of tariffs as one of utmost importance and they see a need to engage with Russian officials more actively. But Chinese and Japanese officials say that they cannot initiate these discussions because of broader political considerations; in Japan’s case tensions over disputed islands and in China’s case historic distrust and tension stemming from changing power-relations between the two large nations.

Another general impression based on research interviews in Seoul is that the Arctic states of northern Europe have a more open attitude to cooperation with non-Arctic countries. The Kingdom of Denmark could play a key role in deepening cooperation between European Arctic states and the North East Asian countries. However, an official with the South Korean Ministry of Land, Transportation and Maritime Affairs reflects a view commonly heard during research interviews with South Korean and Japanese Arctic officials: ‘Frankly, I don’t know much about Denmark. We would like to get to know Denmark. I also hope that Denmark takes the initiative. We need to meet more often to find out what areas of cooperation are possible.’

The relatively shallow understanding within North East Asia of the Kingdom of Denmark includes a lack of knowledge about the constitutional positions of the Faroe

Islands and Greenland within the Kingdom. Awareness of especially the position of the Faroe Islands could be raised by ensuring that visits by North East Asian Arctic officials and other specialists to the Kingdom of Denmark include the Faroe Islands.

As for a country-specific suggestion to increase communication at the political level, there is now an Arctic study group in the Japanese Parliament. Prime Minister Shinzo Abe was one of its founding members. Though merely an informal group, it should be invited by Danish parliamentarians with a direct interest in Arctic issues to the Kingdom of Denmark on a study tour, including the Faroe Islands and Greenland. The ‘Greenland outreach’ in Japan being planned by the Danish embassy in Tokyo is in line with this idea and is certainly timely.

Increase research cooperation in targeted areas

One obvious way to strengthen the Kingdom of Denmark’s Arctic cooperation with North East Asia is to promote research cooperation in targeted areas. In all three North East Asian countries the Kingdom of Denmark’s reputation as a world-class shipping nation is perhaps most often mentioned. Hence, research cooperation on all aspects of shipping and shipbuilding technology are areas where interests converge. Climate change is another area of general interest. Finally, joint scientific geological research is also of universal interest.

The Japanese are world-renown experts in measuring continental shelves; the use of Japanese expertise in this area should be considered. Japanese scientists are also respected for their deep sea research and this is another area of converging research interests, also with South Koreans.

At the time of one of the research interviews in December 2012 involving Dr Dongmin Jin of KOPRI, he and colleagues were mapping out a research cooperation plan between South Korea and the United Kingdom at the behest of the UK Ministry of Science and Technology. The plan was detailed and identified specific researchers from both countries who could collaborate with each other on clearly defined projects. Next in line was a similar commission from the New Zealand Government. Jin suggested that as a first step the Danish Ministry of Science, Innovation and Higher Education invite a group of leading Korean Arctic researchers to the Kingdom of Denmark to hold a symposium. ‘[South] Korean scientists have little in-depth knowledge about Denmark’s research strengths’, Jin said.

There are a growing number of Chinese, Japanese and South Korean researchers specializing in Arctic governance, logistics, geopolitics and legal matters. They have very little knowledge of or interaction with their Danish counterparts. Thus, the Danish Government should consider establishing a rotating one-month fellowship for a North East Asian researcher to be based at the appropriate Danish research institution. In China Dr Zhang Xia of PRIC and Dr Li Zhenfu of Dalian University, in South Korea Dr Dongmin Jin of KOPRI and in Japan Tetsuo Kotani of JIIA would be excellent candidates for such a fellowship. All four are mid-career specialists who can be expected to develop into their respective country’s most prominent Arctic experts.

Provide expertise and even training on specific skills needed in the Arctic

Inspired by the visit of Greenland’s Prime Minister to South Korea in December 2012, a South Korean official suggested that project management experts from South Korea join forces with Greenlanders to evaluate the various international actors showing an interest in Greenland’s resources and jointly conduct an in-depth risk analysis and study of all the

skills needed for mega-project management. The official referred to the experiences South Korea has had with its own very rapid development and the lessons many Korean companies had to learn along the way, starting from the intricacies of international investment services, insurance policies, project management and so on. This is a reflection of South Korean innovative thinking and forward-looking approach to new frontiers.

Concerns in Greenland about a possible influx of Asian workers should be addressed by preparing a tailored workshop module at which Danish labour laws are explained and one case study is examined. This workshop should be held in both China and South Korea and involve prospective investors, mining companies and government officials in each of these countries.

Pursue joint development projects involving researchers and those companies that have already taken an interest in Greenland

In Greenland there are many opportunities to cooperate with all three North East Asian countries. There is burgeoning interest in Greenland's resources and the Greenland Government should consider facilitating a small pilot project focusing on resource development with a holistic approach together with each of the North East Asian countries. The project could bring together a whole team of experts from both sides, ranging from scientists and experts with project management skills to mining companies and environmental specialists. A rare earth metals development project, for example, would be of keen interest.

Contribute to raising an awareness among the general public in North East Asian countries of the Arctic, with the Kingdom of Denmark at the fore

All efforts to promote an awareness of the Arctic region and Kingdom of Denmark as an Arctic state in China, Japan and South Korea would be welcomed by the governments in Beijing, Tokyo and Seoul. This includes standard promotional work, inviting students to visit their peers in Greenland, and establishing twin city partnerships between Nuuk and for example Dalian, Pusan and Hokkaido. Finding ways to evoke media interest in each of these activities is naturally beneficial.

Recommendations

- Actively promote the permanent observer status of China, Japan and South Korea in the Arctic Council.
- Establish an annual flagship Arctic conference, with the host location rotating between mainland Denmark, the Faroe Islands and Greenland.
- Organize a tour of Beijing, Seoul and Tokyo for the Kingdom of Denmark's Arctic Ambassador, including a seminar in each capital to explain the Kingdom of Denmark's Arctic strategy and its Arctic know-how. Ensure many different kinds of actor are invited.
- Initiate separate Arctic dialogues with the governments of China, Japan and South Korea.
- Establish a Kingdom of Denmark+3 cooperation initiative, with an initial focus on Arctic shipping.

- Engage Russia in a series of multilateral (including China, Japan and South Korea) track 1.5 forums focusing on legal aspects of the freedom of navigation and rights and responsibilities.
- Invite Japanese Parliament's Arctic study group to the Kingdom of Denmark, including Greenland and the Faroe Islands.
- Organize an Arctic research symposium in Beijing, Seoul and Tokyo to explain in detail which areas of expertise the Kingdom of Denmark's Arctic research community is focused on. Ensure that relevant participants from across China, Japan and South Korea are invited. Follow-up with a research symposium in the Kingdom of Denmark, inviting a select group of North East Asian researchers.
- Within the Kingdom of Denmark promote Japanese expertise in deep sea research and the measurement of continental shelves.
- Establish a rotating one-month fellowship for a North East Asian Arctic researcher focusing on politics, logistics or legal issues.
- Establish a joint task force between Greenlanders and South Koreans to conduct a risk analysis of a mega-project and mapping of the diverse skills needed.
- Facilitate a small pilot project focusing on resource development with a holistic approach together with each of the North East Asian countries. Include scientists, project management experts, mining companies, and environmental specialists.
- Prepare a tailored workshop module that focuses on the constitutional and legal settings of the Kingdom of Denmark, with focus e.g. on labour laws and migration of Asian workers to Greenland and the Faroe Islands.
- Target the media in China, Japan and South Korea with Arctic-related topics profiling the Kingdom of Denmark at the fore.
- Raise awareness of the constitutional positions of the Faroe Islands and Greenland and their importance to Arctic issues in all events engaging North East Asian Arctic officials and specialists.
- Establish an Arctic exchange programme between each of the North East Asian countries and the Kingdom of Denmark, including Greenland and the Faroe Islands, for senior high school students.
- Establish twin partnerships between municipalities of Greenland and the Faroe Islands and Dalian, Pusan and Hokkaido.

Ultimately, the Danish Government must decide what kind of a priority the strengthening of Arctic cooperation with the North East Asian countries represents. Many forms of cooperation will at least initially not only require effort (i.e. time and human resources) but also commitment of funds.

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