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ASIAN FOREIGN POLICY IN A CHANGING ARCTIC

The Diplomacy of Economy and Science at New Frontiers

Aki Tonami

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To my family

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Preface

On 9 December 2013, after flying five hours from Copenhagen, I set foot inside the Arctic Circle for the first time in my life. I had arrived at Kangerlussuaq Airport, a former US Air Base and now a civilian airport in Greenland. As I came out from the plane, in the distance I saw enormous flattop rocky mountains surrounding the airport. It was December—everything, virtually everything, was white. The scenery very much fitted what I imagined as the Arctic.

From there, we took another flight to the capital of Greenland, Nuuk, which lies outside of the Arctic Circle. Although still bitterly cold, it was a beautiful small town with colourful little houses. In Nuuk, I was given an opportunity to give a lecture on Japan's Arctic policy and its relation to Greenland.

The next morning, I stood in front of the audience that filled up a large hall at Ilisimatusarfik, the University of Greenland. They were mostly ethnic Greenlanders interested in knowing more about Asia—university students, lecturers, business owners, government officials, and politicians alike. As I stood to begin my talk, I felt a strange sense of comfort as I looked around at their faces—they looked so much like me. This was very different from my usual experience of going abroad for work (or living in Denmark for that matter), where I am used to seeing different faces of different colours. I knew the Inuits were what we know as Mongoloids, like me, a Japanese, but I could not quite process that, somehow, at a place so far away from Japan or East Asia, we were somehow connected.

This happened at a time of much media debate around the idea that "China is coming to the Arctic." Citizens (mostly non-Inuits) in the

Arctic coastal states appeared to feel threatened by the idea that the new, economically, and militarily powerful force (a new 'yellow peril') might be coming to their backyard, possibly with negative consequences for its pristine environment. After many years of tensions in the Arctic Region through the Cold War, the existing multi-layered governance system of the Region centred on the Arctic Council appeared to keep the Region in peace. So what good could come from letting these Asian so-called newcomers in? They are not from here and they don't understand the Arctic anyway. These were opinions I heard during this period and, as an Asian person living and working in an Arctic coastal state, they were uncomfortably reminiscent of "Japan bashing" that I witnessed while living in California during Japan's peak of economic dominance during the 1980s and early 1990s.

A few months later, I happened to hear that one member of the Greenlandic delegation to China had a similar experience in China: "we Greenlanders think and act very similar to East Asians." Psychological analysis aside, I could not quite ignore this difference between the distance we feel about the Arctic via a political, conceptual construct and a more human-to-human interactions. Do we really know what is happening in the Arctic? Do we know what the ultimate goals of the Asian states are in the Arctic?

The term "Arctic" has many meanings. For instance, Arctic Studies can deal with the natural environment (ice, ocean, air, etc.), cultural, social, political, and environmental issues, or indigenous peoples. My small piece of this big Arctic puzzle will be from the perspective of international relations and political economy. In this book, I attempt to introduce how Asians view the Arctic by addressing the questions of "What role does Arctic policy have for Asian states?" and "Where do Asian states' Arctic policies lie within their overall foreign policy?"

This book begins by examining the context of the changing Arctic, the existing framework of Arctic governance, and the background of Asian states' "arrival" to the Arctic Region, as well as associated reactions. I will also introduce the concept of economic diplomacy, which I use in this study. Chapters 2–6 examine in detail the profiles and domestic politics of China, Japan, South Korea, Singapore, and India. The final chapter draws comparisons and lessons from these five case studies of Asian foreign policy towards the Arctic Region.

Some years have passed since the initial media hype and the eventual entry of Asian states to the Arctic Council as Observers, and this book hopefully contains the follow-up on the new Asian observers since becoming fully fledged members of the Arctic community. Moreover, this book is one of the few books on the subject written by a single author, which gives a coherent analysis throughout the book. My viewpoints as a Japanese scholar living in Denmark and working at a Nordic institute give a unique angle to the discussion as well.

In that regard, I am extremely grateful for my current employer, the Nordic Institute of Asian Studies at the Department of Political Science, University of Copenhagen, for the opportunity and encouragement to work on this exciting topic. I owe my gratitude to the Nordic Council of Ministers, the Scandinavia-Japan Sasakawa Foundation, and the Asian Dynamics Initiative at the University of Copenhagen for generous grants to help fund this study. I became a believer in the Nordic construct, and I hope this book is one example of "nordisk nytte" (Nordic value).

I wish to thank many people who were helpful to my research and who read and commented on my work. The scholars of Asian studies deserve my deepest gratitude: Anne-Marie Brady, Cheng Baozhi, Jong Kun Choi, Christopher M. Dent, Geir Helgesen, Glenn D. Hook, Yang Jiang, Marc Lanteigne, Tedong Lee, Liu Chunrong, Outi Luova, Paul Midford, Jonas Parello-Plesner, Marie Söderberg, Kai Sun, Vijay Sakhuja, and Atsushi Sunami.

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In addition, I owe a great debt to a number of anonymous officials at various ministries who became my interviewees.

Last but not least, I am very grateful to my husband, Stewart Watters, who read the entire manuscript more than once and who supported me during the research and writing process. Thanks are also due to the editorial team at Palgrave Macmillan.

A sign post showing distances from the research town Ny-Ålesund in Svalbard, Norway. Photo provided by the National Institute of Polar Research, Japan.

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CHAPTER 1

Introduction

Abstract Climatic changes and their effects in the Arctic have revealed the need for significant adjustments to the existing Arctic governance system. One example of this is the growing interest by Asian states, which are normally considered as Arctic "outsiders." Existing research asserts that Asian states are mostly interested in the economic aspect of the changing Arctic, be it vast deposits of mineral sources, fossil sources, or the opening of the new sea routes, with an underlying assumption that they take a Machiavellian approach in their international relations. On the contrary, I argue that the relation of Asian states and the Arctic is much more complex and dynamic, grounded on their unique perspective on national security and the role of economic development in securing their national interests.

Keywords The Arctic • Climate change • Arctic Council • East Asia • Non-Arctic observers • Economic diplomacy

The Changing Arctic

Located at the northernmost point of the Earth, the Arctic Ocean is the smallest and shallowest of the five major oceans, covering only 3% of global surface area. Since the first explorers reached the North Pole in the beginning of the twentieth century, the Arctic Region has remained

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as a peripheral region of the coastal states. Partly because it is covered by thick ice (almost fully during the winter and 50% during the summer), the Arctic has often been described as a pristine, white Northern hinterland disconnected from any human activities or civilization.

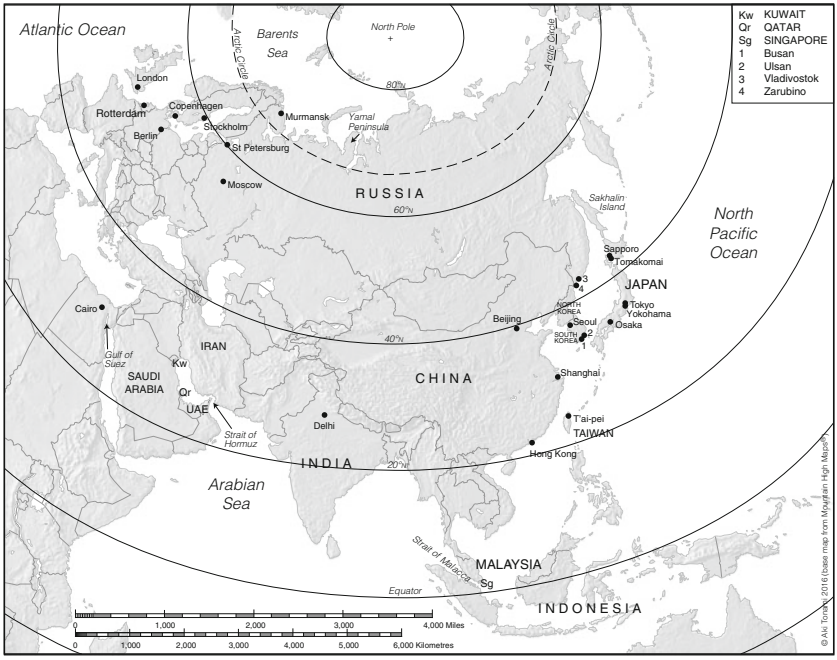
During World War II (WWII), the strategic value of the region rapidly increased as the Japanese attacked the Aleutian Islands and as "staging routes" were established, cutting northwest and northeast across the Arctic to transport aircraft to Britain and Russia (Farish 2006). At the dawn of the Cold War, the Arctic became a more strategically crucial region, as it became clear that the two major protagonists of the Cold War, the USA and the Soviet Union, bordered on each other at the top of the globe. As a result, the Arctic became a sensitive area with strategic weapons systems installed.

Following the end of the Cold War, views on the Arctic shifted once more from the strategic, security-focused role to the growing body of evidence from the Arctic, pointing to the effects of global warming and climate change. From the 1980s, reports began to emerge that the Arctic was undergoing dramatic climatic changes, and that Arctic ice was melting at an unprecedented rate. Striking images of polar bears stranded on melting ice defined a changing Arctic in the public mind. It was therefore groundbreaking when then-president of the Soviet Union, Mikhail Gorbachev, gave a speech in Murmansk in 1987 introducing the Murmansk Initiative to establish the Arctic as a "zone of peace." The Speech included six proposals. The first two proposed the establishment of a nuclear weapon-free zone in northern Europe, reducing military activities, and the stimulation of confidence-building measures in the northern seas. The other proposals concerned civilian, economic cooperation in developing natural resources, coordination of scientific research, cooperation in environmental protection, and the opening of the Northern Sea Route (NSR) to international shipping (Heininen 2012). As the Cold War waned and eventually ended in 1989, the Arctic became a focal point for a variety of activities involving transnational cooperation (Young 2005).

By the beginning of the 1990s, the international community had begun to pay increased attention to the relationship between economic development and its influence on the natural environment, particularly climatic changes through greenhouse gas emissions. The Intergovernmental Panel on Climate Change Fourth Assessment Report on Climate Change, released in 2007, set out that the average temperature of the

Arctic Region had increased by 2 °C, resulting in a massive decrease in sea-ice extent (Anisimov et al. 2007). While the future and ongoing climatic changes in the Arctic were considered problematic, some began to respond to the new reality by discussing the possibility of exploring the impenetrable Arctic Region as the ice melted—and even the significance of a near-ice-free Arctic future. One consequence of this has been the focus on the opening up of the NSR. The Soviet Union and subsequently Russia had operated in the NSR previously, but its use did not really grow despite optimism from Russia. The NSR has never been sufficiently ice-free to allow significant maritime transportation between Europe and Asia (Ho 2010). The retreat of the Arctic sea-ice certainly appeared as good news for ice-closed, less wealthy regions of the Arctic. It was in this context that, in 2007, two Russian mini submarines reached the seabed below the North Pole and planted a one-metre-high titanium Russian flag on the undersea Lomonosov ridge, to commemorate Russia's claim that the North Pole is directly connected to its continental shelf (Parfitt 2007).

Indeed, the Arctic is becoming ice-free for longer periods and over a greater area for each passing year. Scientists have proven that even a small loss of the ice sheet of Greenland raises global sea levels. Simultaneously, these seemingly negative changes to the Arctic have thrown light on the new possibilities in the Arctic Region. The Arctic has extensive hydrocarbon deposits already discovered, as well as vast expanses yet to be explored. The most recent Circum-Arctic Resource Appraisal, conducted in 2008 by the US Geological Survey (USGS), estimated that nearly one quarter of the earth's undiscovered recoverable petroleum resources are in the Arctic Region: 13% of its oil, 30% of its natural gas, and 20% of its liquefied natural gas (US Geological Survey 2008). Other precious metals such as gold, nickel, and rare-earth minerals are supposedly buried under the Arctic ice. There is also the possibility of new shipping routes. The Northeast Passage, approximately 3000 miles across the top of Eurasia, connects the Atlantic to the Pacific. The NSR, which runs from the Kara Gate to the Bering Strait, connects Europe and Asia across the High North. During the summer months, when the ice level is at its lowest, these new shipping routes can cut the shipping distance between Asia and Europe by as much as 30% compared to conventional routes such as via the Suez Canal. At the beginning of the new Millennium, some dreamed of a new gold rush—an Arctic gold rush (Arnsdorf 2014).



Map 1.1 Map of Asia and the Arctic region. Mountain High Maps® Copyright © 1993 Digital Wisdom®, Inc.

Arctic Governance

Gorbachev's Murmansk Speech was the beginning of a process that eventually led to the establishment of important governance regimes in the Arctic, such as the Arctic Environmental Protection Strategy (AEPS) in 1991.[1] The AEPS eventually led to the founding of the Arctic Council (AC) in 1996.[2]

The AC, founded in 1996, has become the leading intergovernmental forum for cooperation in and about the Arctic Region. The Council is "a high level intergovernmental forum," "promoting cooperation, coordination and interaction among the Arctic states, with the involvement of the Arctic Indigenous communities and other Arctic inhabitants on common Arctic issues," that takes up "issues of sustainable development and environmental protection in the Arctic."[3] The Council consists of Member States, Permanent Participants, and Observers. Currently, Member States of the AC are the eight Arctic States: Canada, the Kingdom of Denmark

(including Greenland and the Faroe Islands), Finland, Iceland, Norway, Russia, Sweden, and the USA (Arctic Council 2015a).[4] Permanent Participants are made of organizations representing Arctic Indigenous Peoples.[5] Observer status is open to non-Arctic states, intergovernmental and inter-parliamentary organizations, and global and regional or non-governmental organizations (NGOs). At present there are 12 non-Arctic states (France, Germany, The Netherlands, Poland, Spain, UK, People's Republic of China (PRC), Italian Republic, Japan, Republic of Korea (ROK), Republic of Singapore, Republic of India), 9 intergovernmental and inter-parliamentary organizations, and 11 NGOs admitted as Observers (Arctic Council 2015b).

Unlike Antarctica, which is the South Pole region and a continent with no indigenous population, the Arctic is an area surrounding the Arctic Ocean located in the north polar region and has indigenous population. Partly due to these geographical differences, the Arctic is not governed by a comprehensive regional treaty-based regime like the Antarctic Treaty but covered by a multi-layered legal and institutional framework. The so-called Spitsbergen Treaty or Svalbard Treaty (Treaty between Norway, the USA, Denmark, France, Italy, Japan, the Netherlands, Great Britain, and Ireland and the British overseas Dominions and Sweden concerning Spitsbergen signed in Paris, 9 February 1920) is one of the oldest yet most relevant international agreements on the Arctic for Arctic and non-Arctic states alike. The Treaty recognizes the sovereignty of Norway over the Arctic archipelago of Svalbard (at the time called Spitsbergen), while giving the signatories equal rights to engage in commercial activities (mainly coal mining) on the islands (Wikisource 2013). Ny-Ålesund on the island of Spitsbergen in Svalbard is a popular location for non-Arctic states to base research stations.

The 1982 UN Convention on the Law of the Sea (UNCLOS) provides the legal framework to control activities on, over, and beneath the Arctic Ocean. The International Maritime Organization (IMO), established in 1948, is a specialized agency of the United Nations (UN) responsible for regulating international shipping. In November 2014, IMO adopted the International Code for Ships Operating in Polar Waters (Polar Code) (International Maritime Organization [IMO] 2016).[6] Other laws, such as the UN Agreement relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, common laws, and domestic laws of the Arctic coastal states constitute this multi-layered legal system of the Arctic.

Particularly with regards to security issues, which are intentionally excluded from the mandate of the AC, the North Atlantic Treaty Organization (NATO) is a relevant forum. In addition, the International Arctic Science Committee (IASC) founded in 1990 is a NGO focused purely on research. Nordic nations (Denmark, Sweden, Norway, Finland, and Iceland) use the Nordic Council to discuss sustainability and issues related to Arctic indigenous peoples. The most recent addition is the Arctic Circle Assembly, which was formed in 2013 by the Icelandic president Ólafur Ragnar Grímsson (The Arctic Circle 2013). The Arctic Circle Assembly aims to provide a forum for political and business groups and other organizations that may not necessarily have a strong say in other Arctic-related fora, such as the AC, to discuss Arctic issues.[7] The World Economic Forum, a Swiss-based non-profit organization mostly known for its annual meetings in Davos attracting top business leaders from around the world, has had a special council on the Arctic since 2014 (World Economic Forum 2016).

Despite these layers of governance in the Arctic, various changes directly and indirectly caused by climatic changes in the Arctic suggest that it has become increasingly difficult to ignore the need for significant adjustments to the existing Arctic governance system, particularly in three key areas: management and use of natural resources, shipping, and environmental protection (Stokke 2014). One example of this has been the growing interest in the Arctic by Asian states. Conventionally, because of their geographical distance from the Arctic, Asian states have not been considered as normal Arctic actors—they were Arctic "outsiders." However, when Asian states submitted their applications for Observer status at the AC, their interest in the Arctic was most clearly represented. These applications were one of the first indications that the mostly Western Arctic states might have to accommodate the interests of these "outsiders" in what they considered as their "backyard." The Asian applications began with China's in 2006, South Korea in 2008, Japan in 2009, Singapore in early 2012, and India in late 2012. At the May 2013 AC Ministerial Meeting in Kiruna, Sweden, six new states, namely China, Japan, India, Italy, Singapore, and South Korea, became Observers at the AC, while the European Union's (EU) application was put on hold.[8] Of these six states, five were Asian.

Asia in the Changing Arctic

There is not a large volume of published studies describing Asian countries' interest in the Arctic, and the few that exist focus on China (Lasserre 2010; Chen 2012; Ohnishi 2013; Sun 2013; Lunde et al. 2015). However, these attempts coupled with statements from the Asian stakeholders to explain the reasons why Asian countries have any interests (and should have a presence) in the Arctic became an important element in influencing the current form of Arctic governance, whose structure was already challenged by other issues such as a worrying ecological environment and a rise in economic opportunities. Indeed, the process of explaining Asia's legitimacy in the Arctic became the practice of legitimacy, which "dwells upon the pursuit of consensus within international society, considered as a political process constrained by existing, if shifting, norms" (Clark 2007, 30).

Numerous news articles and editorials that appeared before the AC's Kiruna meeting hinted that "the Chinese are coming" to the Arctic to exploit and possibly destroy the rich natural resources in the region (Rosenthal 2012; The Economist 2013). The debate sparked by the increasing interest of Asian states in the Arctic became so heated that some experts felt the need to caution over the tone of the debate. Linda Jakobson, a China security expert, pointed out that "(t)he hype about China's permanent observer bid (to the Arctic Council) is far-fetched" (Jakobson 2013). Coates and Hara, scholars on Japan based in Canada, asserted that the Arctic coastal states need to "park the paranoia" and see the opportunities that Asian countries could bring to the Arctic Region: "South Korea and Japan bring technological and scientific advantages to help the Arctic develop in a sustainable way. Canada and the Arctic states should welcome that involvement" (Coates and Hara 2013). In Canada, the arrival (or perceived arrival) of Asian states to the Arctic was a particularly emotional issue as it has characterized itself as an Arctic state and circumpolar actor, emphasizing its local and territorial identity. Breum and Chemnitz, journalists who worked on Greenlandic politics and society, advised the world to "stay cool as we discuss the prospects" in their editorial article on the New York Times (Breum and Chemnitz 2013). The article, titled "No, Greenland does not belong to China," argued that speculation around how Chinese funding of mining projects in Greenland might lead to Chinese military bases and Greenland's rapid independence from Denmark was less than helpful for Greenland.

Map 1.2 Map of the Artic region. Mountain High Maps® Copyright © 1993 Digital Wisdom®, Inc.

Seen from the Arctic states' point of view, the role of Asian states in the Arctic is sometimes found at opposing ends of the spectrum. One extreme is based on realist notions and, to some extent, the fear of a "rising Asia." Observers of this notion assert that Asian interest and investment in the Arctic Region, particularly from China, indicate a future in which some level of competition over resource extraction and military presence will occur as China becomes more influential with its economic and military power (see, e.g., Bork 2013 and Main 2013). At the other end of the spectrum, the liberal position applies a more internationalist approach to the Arctic. Asian interests in the Arctic will cause no harm to the Arctic states and their peoples as long as they are managed (e.g., see Brugård 2013). Scholarly assessments are slightly more nuanced yet varied. For instance, Chen (2012) gives a warning, saying that China's ultimate goal in the Arctic is unknown because China's Arctic strategy is a component of its maritime strategy, which in turn is part of the country's grand strategy. On the other hand, Lasserre (2010) and Hong (2012) advocate China's interest in the Arctic; it is genuine and will create opportunities for countries in the Arctic Region, such as Canada, to develop new sea routes or explore natural resources. After all, it is more beneficial for China to cooperate with the Arctic states than to have a confrontational exploration strategy (Alexeeva and Lasserre 2012) partly because China wants to be seen as a "responsible major power" (Kopra 2013). Opinions of Jakobson and Peng (2012) situate themselves between these two views. They contend that China's Arctic policies are still in a nascent stage of formulation, and the Chinese government will continue making its diplomatic efforts to increase China's chances of being included in decisions related to Arctic governance and resource exploitation.[9] Leiv Lunde, the Director of the Fridtjof Nansen Institute of Norway, argues that while the future of the Arctic is unknown, "[a]n appreciation and understanding of each other's objectives and policies" is needed to "detect common interests and identify future win–win opportunities" (Stensdal 2015, 280).

Indeed, there appears to be a consensus among researchers that Asian countries' interests in the Arctic are primarily related to climate change and economic factors. Several studies on Asian states other than China reveal that Asian states who became new Observers at the AC (China, India, Japan, South Korea, Singapore) are interested in economic opportunities and environmental issues, climate change in particular, and other issues that they regard suitable for cooperative scientific research (Jakobson and Peng 2012; Tonami and Watters 2012; Watters and Tonami 2012;

Young et al. 2013; Hara and Coates 2014; Lunde et al. 2015). While some view the opening of a new sea lane via Arctic waters as potentially bringing about a significant shift in the geopolitics of Europe and Asia (Blunden 2012), others see that it is actually the Arctic states that overheat debates in Arctic politics because they cannot "come up with a shared list of rules for the non-Arctic states," and they are not "in full agreement about how the 'code of conduct' should develop" (Solli et al. 2013). One major limitation of most of the analyses made, so far, is that they do not explain theoretically the reasons for the Asian states' engagement in the Arctic. The general conclusion is that Asian states are mostly interested in the economic aspect of the changing Arctic, be it vast deposits of mineral sources, fossil sources, or the opening of the new sea routes. This assessment contains an underlying assumption that Asian states take a Machiavellian approach in their international relations, favouring expediency over morality. Contrary to this perspective, I will argue that the relation of Asian states and the Arctic is much more complex and dynamic, influenced by the changing landscapes of world politics. What role does Arctic policy have for Asian states, which are indeed geographically distant from the Arctic, the Northern hinterland? Where do their Arctic policies lie in their overall foreign policy? In this book, I attempt to explain that Asian states' (seemingly) economic interest in the Arctic is grounded in their unique perspective on national security and the role of economic development in securing their national interests.

Theoretical Framework of This Book

The theory of the "East Asian developmental state" has been pivotal to analyses of the economic success of East Asia's "miracle" economies since the early 1980s, beginning with the work of Johnson (1982), "MITI and the Japanese Miracle." According to Johnson, the developmental state is characterized by an interventionist government that guides and supports social–economic development through industrial growth in a capitalist environment. Scholarly work on South Korea, Taiwan, and Singapore in the 1980s used the concept as a theoretical grounding. As the concept developed, Stubbs (2009) pointed out that three key "ingredients" are witnessed around developmental states: the institutional aspect, the relations aspect, and the ideational aspect. The institutional aspect, crucial to developmental states, highlighted that they often allowed a cohesive set of institutions with a relatively autonomous capacity to implement a planned

strategy for capitalist economic growth. The relations aspect can be summarized in the words of Woo-Cumings (1999): the developmental state is "a shorthand for the seamless web of political, bureaucratic, and moneyed influences that structure economic life in capitalist Northeast Asia" (p. 1). The ideational aspect of the developmental state can be nationalism, (neo-) mercantilism, economic transformation, rapid industrialization, performance legitimacy, or some combination of these ideas. Even nearly 30 years after the concept was suggested, the developmental state concept remains valid for East Asian countries. Wong (2004) labelled it as "the adaptive development state." Stubbs (2009) argued that its longevity is because the developmental state has a certain "stickiness" to it. The developmental state has a "resilience ('path dependency') that ensures that the concept continues to be influential in terms of policy making even after the circumstances that elevated them to prominence have changed."

The developmental state is strongly influenced by Gerschenkron's (1962) argument that latecomers in the world economy require a centralized approach to industrialization and economic growth. Referring to this idea, Suehiro (2008) dubbed the rapid economic development in East Asia "catch-up industrialization." Catch-up industrialization is a form of industrialization adopted by late-industrializing countries, having two features: they enjoy the advantages of "economic backwardness," and they have to start by importing most industrial products (Suehiro 2008, 4). Ideologically, catch-up industrialization is strongly based on "developmentalism." Developmentalism can be established only if two requirements are met: the economic requirement for latecomer industrialization and the political requirement for a strong crisis management system. The belief in developmentalism and growth ideology remains strong in Asia, including in the former Socialist countries such as China and Vietnam.

Studies on developmental states and state-led development mostly addressed the domestic context, but had relatively little to say about implications for foreign policy (Okano-Heijmans 2012). Okano-Hejimans studied Japan's foreign policy and found that Japan, a country that engages in state-led development as one of the "latecomers" in an international system, has practiced what can be called economic diplomacy. Berridge (2005) defined economic diplomacy as "a foreign policy practice and strategy that is based on the premise that economic/commercial interests and political interests reinforce one another, and should thus be seen in tandem." Bayne and Woolcock (2011) saw it more broadly as "the process of international economic decision-making" to serve the coun-

try's national interest in terms of economic prosperity or political stability. Okano-Heijmans (2011) added the security dimension to economic diplomacy. According to her, economic diplomacy is "the pursuit of economic security within an anarchic system." Economic security consists of the economic prosperity and political stability of a nation. To promote and protect these two types of national interest, a government pursues economic diplomacy using a variety of instruments that are relatively more economic or political in character.

Although to varying degrees, the Asian states that I will pay attention to in this book pursue a certain level of state-led development. As such, their foreign policy can be considered as having a strong element of economic diplomacy. The Arctic policies of China, Japan, Singapore, and South Korea can be considered as policies constituting a component of economic diplomacy (India to a lesser extent, primarily because India's Arctic policy is at such a nascent stage). Economic diplomacy is the pursuit of economic security within an anarchic system, and when a government pursues it, it involves a variety of instruments. There are five strands of economic diplomacy, and they involve tools and purposes that are relatively more commercial/economic or political in character (Okano-Heijmans 2011). All tools of economic diplomacy can be placed somewhere in between these two characteristics. At the economic end, there are the cooperative efforts by government and business that aim to achieve commercial objectives that advance national interests, such as trade and investment promotion or development aid. This type of diplomatic tool is also known as commercial diplomacy. At the political end, instruments that generally involve actions and negotiations that are primarily political in character can be found. Examples are sanctions (and the lifting thereof) and certain elements of development aid (Table 1.1).

In the rest of the book, I am going to apply this understanding of state-led development and economic diplomacy. In addition, in order to provide a better picture of where Asian countries' Arctic policies lie in their overall foreign policy, I will take insights from different theories of international relations and international political economy. For instance, from comparative politics, I will incorporate a viewpoint that domestic political factors, such as bureaucracies, political institutions, interest groups, and values and identities, as mediating the impact of external events and trends on foreign policy choices. I will also refer to structural realism, which pays attention to the impact of external forces on basic elements in domestic

Table 1.1 Tools and expressions of economic diplomacy

	Type of tools	*Primary goals*	
Commercial diplomacy	Political	Highly economic	• Trade promotion • Investment promotion • Business advocacy • Tourism promotion • Promotion of social responsible-investing • (International) cooperation in science and technology
Financial diplomacy	Political	Political	• Currency swap agreements • Exchange-rate policy • Buying/selling of government bonds
Trade diplomacy	Political	Economic	• Bilateral FTAs, EPAs • Multilateral (e.g., WTO) • (Anti-dumping) tariffs • Export or import licenses • Import or export quotas, trade and investment barriers
Inducements	Economic	Political	• Bilateral assistance: grants, loans • Debt relief • Humanitarian aid • Granting access to technology • Granting membership of international organizations
Sanctions	Economic	Highly political	• Embargo (exports; state) • Boycott (imports; individuals) • Suspension of assistance and aid • Capital controls • Blacklist

Source: Author's compilation based on Okano-Heijmans (2011)

politics, as well as the manner and the timing of external forces changing a country's political institutions, its configuration of interests, its ideas about itself, and the world (Lancaster 2007, 8–9).

Each chapter begins with the history of each country's Arctic engagement (if any) and the external and domestic environments to capture the elements that influence the formation of Arctic policies. In addition, each country's interests are categorized into three classes: (1) national interests, (2) bureaucratic interests, and (3) group interests. This will high-

light which institutions and actors are likely to provide leadership (and the dynamics thereof) as the Asian states attempt to become more engaged in Arctic governance. I take the position that the Arctic policies of the Asian states are driven by multi-layered economic and strategic motivations.

References and data that will be used in my study on Asian states, or a comparative study on these states, are from policy papers, government documents, and media articles written in Chinese, Japanese, Korean, and English as well as interviews with relevant stakeholders from these countries. While quantitative data are essential, this study is essentially a qualitative one that takes an in-depth, case study approach.

At the end of the book, I will use the concept of economic diplomacy once again in order to compare and highlight the similarities and differences in the Arctic policies of these five Asian states, thereby presenting a comprehensive picture of the distinctively "Asian" Arctic policies. Moreover, it becomes clear that, despite their acknowledgement of sovereign rights of the Arctic coastal states as a prerequisite for obtaining full observer status at the AC, Asian states regard the Arctic as one of the global commons. In this regard, I will also pay attention to their engagement in global governance of other global commons, such as climate change policies or fisheries management, to shed light on the significance of their Arctic policies.

In this study, it will be shown that, currently, economic interests indeed drive the Arctic policies of China, Japan, Korea, and Singapore. Nonetheless, their economic interests are closely linked to their national security, much more than the stereotypical understanding of Asian states being Machiavellian or "economic animals." It also becomes clear that science (both knowledge and epistemic communities) and technology are given a special role in their foreign policy; they constitute an integral component of the political and economic diplomacy of Asian states.

Notes

1. Ministers of the eight Arctic states for the first time signed a common document in Rovaniemi. The process was initiated by Finland, but the proposal originally came from the Murmansk Speech.
2. The IASC had already been established in 1990.
3. The AC is increasingly paying attention to Arctic Ocean issues and in 2011 a regional search and rescue arrangement was concluded (Rothwell 2014, 19).

4. There is a distinction between the five states that border on the Arctic Ocean (Canada, Denmark, Norway, Russian, and the USA) which are commonly called the Arctic 5, and these eight states are commonly called the Arctic 8.
5. Permanent Participants have the right to participate in all meetings and activities of the Council, and their representatives sit alongside Ministers and State Oceanic Administrations (SAOs). Permanent Participants are fully consulted, and they also have the right to present proposals for cooperative activities (Bloom 1999); however, the decision-making power lies only with the Member States.
6. The Polar Code is expected to enter into force on 1 January 2017.
7. See more in Rossi (2015).
8. The Observer status at the AC is commonly known as Permanent Observer to differentiate from Ad-hoc Observers, who do not receive automatic invitations to meetings.
9. Their opinions are reinforced to an extent by a later study by Lasserre et al. (2015), which contends Beijing's strategy on the Arctic is more driven by opportunism than by a long-term desire to challenge the littoral states' sovereignty.

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CHAPTER 2

China's Arctic Policy

Abstract China entered the Arctic as part of its "omnidirectional diplomacy" from the late 1990s, branching out and going global, supported by rapid economic growth. As a "near-Arctic state," China has a strong desire to understand the implications of a changing Arctic, due to its potentially beneficial or harmful effects. China regards itself as deserving a say in Arctic affairs, given its global prominence and rise in economic and political power elsewhere. China's interest in the Arctic lies mostly in the economic sphere, and China seeks to pursue economic security via energy development projects and new shipping routes. China has not been reticent about marking that the Arctic has a political significance but is also very conscious of how it is seen by other actors.

Keywords China • Arctic policy • Non-Arctic Observers • Economic security • Economic diplomacy

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End of the Cold War and the Burgeoning of China's Arctic Policy

The People's Republic of China (PRC)'s official engagement with the Arctic began with the signing of the Svalbard Treaty in 1925, albeit under the Republic of China, prior to the establishment of the PRC in 1949. During the Cold War, when the Arctic was considered as a strategically critical region for the two superpowers, the Soviet Union and the USA, China sought to ensure an "anti-Soviet hegemony" in the late 1970s (Kojima 2001) and practiced an "independent foreign policy" from 1982, trying to either distance itself from the Soviet Union or gain equidistance from both the Soviet and the USA (Shambaugh 2013, 50). In this period, despite a tumultuous political situation and dire economic conditions at home, China carried out a small range of polar activities, although mostly relating to the Antarctic. For instance, China joined the Antarctic Treaty System in 1983, which was initially blocked by the USA as a result of its alliance with Taiwan (as the Republic of China). In 1984, China sent its first Antarctic Expedition, called the Chinese National Antarctic Research Expedition (CHINARE), and established its first Antarctic station in 1985.

In 1989, following the crackdown on the pro-democracy movement in June, the Chinese government experienced isolation and stigmatization from the West (Shambaugh 2013, 51). Despite this, as the Cold War concluded into the 1990s, Beijing's participation in UN activities became increasingly expansive and cooperative. China began to act more and more within the UN system, rather than trying to reform the system. Beijing understood that the UN, as a multinational organization facilitating cooperative interactions among sovereign states, would play a more important role in a new, multipolar world than in the old bipolar one (Zhao 2004, 148). In 1996, China joined the IASC and ratified UNCLOS. The Polar Research Institute of China (PRIC) was founded in October 1989 (Polar Research Institute of China 2011). Also during this period, following Party senior leader Deng Xiaoping's "Southern Sojourn" in 1992, China began its rigorous economic reform process. In 1994, the China Development Bank (CDB) was established, and the icebreaking research vessel *Xue Long*, originally purchased second-hand from Ukraine, was refurbished and began its first Antarctic expedition.[1]

"Omnidirectional Diplomacy" and China's Entrance into the Arctic

From 1998 to 2008, China practiced "omnidirectional diplomacy," branching out and going global (Shambaugh 2013, 51). This was supported by the rapid economic growth China managed to achieve in the latter half of the 1990s. China was now confident to demand a place among the major powers able to exert the most influence on the post-Cold War world, such as the USA, Russia, EU, and Japan (Kojima 2001). In 1999, China sent its first official Arctic research expedition.[2] In June 2002, then-President Jiang Zemin made the first state visit to Iceland by a Chinese head of state (People's Daily Online 2002). This visit initiated what has become China's special relationship with Iceland, which China has subsequently relied upon as an entry point to reach the Nordic Arctic states.

As the next President Hu Jintao came to power in 2003, China's polar engagement began to accelerate. In 2003, China's first Arctic station was established in Ny-Ålesund on Svalbard. Since 2005, the Chinese government has increased its expenditure on Antarctic affairs at a steady pace (Brady 2013). In the same year, Chinese Antarctic scientists reached Dome A, one of the last unexplored territories of Antarctica. In the 2008–2009 austral summer, construction began on a new base in Dome A, and China's two other Antarctic stations were upgraded. China also established a new Antarctic research and logistics base in Shanghai in the same period (Brady 2010). There are indications that China first began to consider more deeply the geopolitical aspect of the Arctic in 2007, following the much publicized decision by a Russian research expedition to plant a Russian flag on the Arctic seabed at the North Pole. However, China had already started its official application for Observer status at the AC in 2006. In 2007, China and Iceland started formal negotiations on a free trade agreement (FTA).

China as a World Power and a "Near-Arctic State"

From the mid-2009 to the end of 2010, China's diplomacy returned to a more "combative" stance on the regional and world stage, and the years after 2011 until today are characterized by China's attempts to mend "frayed ties" with those countries to which China took a combative stance (Shambaugh 2013, 52).[3] Interestingly, however, this combative stance was not the case towards the majority of the Arctic states. The notable

exception is Norway, whose relations with China experienced a period of major difficulty in 2010 after the Norwegian parliament-appointed Nobel Committee awarded the Peace Prize to an incarcerated Chinese rights activist, Liu Xiaobo. In 2010, following the 2008 global financial crisis, China offered Iceland much needed support through a currency swap agreement (Ministry of Foreign Affairs of the People's Republic of China 2012). The two countries had already partaken in various forms of trade, including fishing, geothermal power generation, and shipbuilding, but the bilateral relationship particularly flourished after this period. In particular, Chinese tourists to Iceland increased dramatically. In April 2012, then Premier Wen Jiabao visited Iceland and Sweden, which was the Chair of the AC at the time. Chinese Arctic specialists began to refer to China as a "near-Arctic state" (Stockholm International Peace Research Institute 2012). By this definition, China regards itself as a country "situated in the peripheral region near to, yet outside the Arctic region," thereby it is "closely related to the Arctic in terms of geopolitics; the ecological changes" and "economic development of the Arctic region have great influence on China's climate, environment, agricultural production, as well as economic and social development" (Zhang and Yang 2015).

The Chinese government increased investment in Arctic research and commissioned a second Arctic icebreaker. The financial rationale for Chinese commercial investment in the Arctic region was also gradually being settled with the release of the 12th five-year plan (2011), which included a "Go Out" policy regarding resource development projects abroad, as well as a special financing scheme from the CDB for resource development projects abroad (2009). This can be considered as a part of the Chinese government's effort to consume the world's largest surplus of capital as well as to secure energy sources for a rapidly growing, energy-hungry country. Indeed, during 2005–2014, the majority of China's overseas investments went into the energy sector at 395.9 billion USD, accounting for 45% of total investment of 870.4 billion USD (The Heritage Foundation 2016).

The year 2013 was a monumental year for China's Arctic engagement. In March, the new President Xi Jinping made his first state visit to Russia. During the visit, Xi made an agreement with the Russian government that the Russian state-run OAO Rosneft would borrow two billion USD from the CDB and in return guarantee 25 years of oil supplies to China, up to 620,000 barrels of oil per day, and Rosneft offered China National Petroleum Corporation (CNPC) access to three offshore Arctic areas for

oil exploration (Kravchenko and Rudnitsky 2013).[4] In April, the FTA between China and Iceland was signed in Beijing. In May, President Putin made his reciprocal state visit to China, and Gazprom and CNPC signed a contract to supply pipeline gas from Russia to China, worth 400 billion USD (OAO Gazprom 2014). During the same visit, Russia's second largest gas producer Novatek signed an agreement with CNPC to send three million tons of liquefied natural gas (LNG) annually for 20 years from their joint Yamal LNG project in the Russian north (RT 2014). The Yamal LNG project is part of the Yamal megaproject, which is a long-term plan to develop onshore and offshore oil- and gas fields in Russia's strategic region of Yamal Peninsula (OAO Gazprom 2013). The Yamal LNG project is a joint-venture company owned by Novatek (60%), Total (20%), a French multinational oil and gas company, and CNPC (20%), and expected to enable production of 16.5 million tons of LNG annually by 2020 (Total 2016).

Also in May, China's application to Observer status at the AC was finally accepted at the AC Ministerial Meeting in Kiruna, after seven years of wait.[5] China's "accession" from ad hoc Observer to (non-ad hoc) Observer was regarded as a major diplomatic success and an important step towards China becoming a maritime nation (Xinhua 2013). In September, MV *Yong Sheng* reached Rotterdam, the Netherlands, as the first Chinese commercial vessel to use the NSR to reach Europe (COSCO 2013). COSCO, the Chinese marine giant and owner of the ship, stated that the NSR stands "to be the new trunk route of Euro-Asia trade" (Vanderklippe 2014).

In December, the China–Nordic Arctic Research Center (CNARC) was officially launched at the PRIC in Shanghai (Nilsen 2013). Major Nordic research institutions that conduct research on the Arctic, namely Fritjof Nansen Institute (Norway), Norwegian Polar Institute, Arctic Center of the University of Lapland (Finland), Swedish Polar Research Secretariat, Icelandic Center for Research, and the Nordic Institute of Asian Studies in Denmark, became partner organizations. The Research Center's aim is to offer a common research platform for researchers from China and the Nordic region.[6]

The two years since 2013 have been marked by numerous polar-related activities, serving to strongly suggest that China's interest in both the Arctic and the Antarctic is genuine and multifaceted. The year 2014 began with the opening of China's fourth research station in Antarctica, Taishan station (Xinhua 2014). In September, the People's Daily, an official newspaper of the Chinese Communist Party, reported that China and Russia had agreed to begin a joint project to refurbish and expand the Russian

port of Zarubino from a capacity of 1.2 million ton per year to 60 million ton per year (Huang 2014). Zarubino is located on the coastline facing the Sea of Japan, 18 kilometres from the Sino-Russian border and near the special economic city of North Korea, Rason. It is reported that the Chinese authorities may have the long-term aim of establishing Zarubino as a hub for future use of the NSR (Chen 2014).

While the above developments document China's interest in both Polar regions, China has in reality been more active in Antarctica than in the Arctic, and budgets have been allocated accordingly. For instance, in October 2014, CHINARE 31 embarked for Antarctica, the 31st expedition of its Antarctic programme, after having successfully completed CHINARE 30. In November, China signed an agreement with Australia to strengthen their collaboration, which enables China to use Tasmania as a gateway to Antarctica. The signing took place in a ceremony witnessed by President Xi, the Australian Prime Minister Tony Abbott, and the Premier of Tasmania Will Hodgman aboard the Chinese icebreaker *Xue Long* in Hobart (Hodgman 2014). China also chose a site for a fifth Antarctic research station and is reportedly investing in a second icebreaker and new ice-capable planes and helicopters for the next Antarctic expedition (Perlez 2015).

In January 2015, London Mining, a London-based mining company that received a mining license for the Isua Iron Mine in Greenland went bankrupt. A Chinese company based in Hong Kong, with the main operational centre in Tianjin called General Nice Development, received a transfer from the London Mining (Naalakkersuisut Government of Greenland 2015). This transfer went relatively unnoticed compared to 2012, when interest in Greenland's ores from Chinese government institutions and state-owned and private enterprises reached its peak, leading to intense media speculation (Lulu 2015). In July, China's sixth Arctic expedition embarked from Shanghai and in Beijing a new national security law was passed. The new law emphasizes that China must defend its national security interests including its assets and activities in the outer space, the deep sea, Polar regions, and cyberspace (Panda 2015).

In August, when Russia's President Putin visited Beijing to commemorate the 70th anniversary of Japan's defeat in WWII, Novatek sold a 9.9% stake in the Yamal LNG project (worth 1.4 billion USD) to China's Silk Road infrastructure Fund (SRF) (Lakshmi 2015). In October, Tianjin Maritime Geomatics Centre released a 120-page atlas for the Arctic voyage, having passed the review of the North Sea Maritime Security Centre of the Ministry of Transport, and presented the report to COSCO and other major domestic

shipping companies at a domestic maritime forum (The People's Daily 2015). The atlas is indeed comprehensive, covering various aspects of the Arctic, such as geography, topography, climate, ice conditions, ocean currents, resources, culture, Arctic waterways, major ports, navigation environment, ship navigation points, laws and regulations, international conventions, polar navigation rules, international organizations, and so on. Particularly notable is that the reference is not only based on foreign (international) data but also from scientific data acquired from the Chinese Arctic expeditions and COSCO's Arctic Northeast Passage voyage (Zhou 2014). COSCO, having previously acknowledged that sailing the NSR was still at its initial stage and an accumulation of experiences would be necessary before it became financially viable for shipping companies (Li 2013), successfully completed the first return trip with a merchant vessel using the NSR (Zhao 2015).[7] COSCO then announced the launch of regular services through the Arctic Ocean to Europe (AFP 2015). All of these suggest COSCO is helping China to achieve its strategic aim to be a great polar power, albeit implicitly.

External Environment

Several elements in China's external environment influence the country's Arctic policy. First and foremost, there is the issue of the rapid melt of the Arctic Sea Ice over the last few decades. There are indications that China first began to consider more deeply the geopolitical aspect of the Arctic in 2007, following Russia's decision to deploy a nuclear submarine to the North Pole and planted a Russian flag on the seabed. Indeed, although China already started to submit its official application for Observer status at the AC in 2006, it only began to attend AC meetings as an ad hoc Observer in 2007 (Gao 2012). Since then, the government has increased the resources allocated to polar research, including additional manpower support within the bureaucracy. Simultaneously, Chinese officials believe that climate change in the Arctic, and particularly sea-ice melt, is of the utmost importance to the government (Zhang 2013). Should the Arctic become ice-free in the future, China and other countries may see shifting climatic patterns, such as very cold, severe winters in East Asia due to cold air coming from the North to the areas of lower latitude. Meanwhile, melting ice offers opportunities as well. The Arctic is no longer an isolated area for commercial or resource development. It is therefore important for the Chinese government to deepen its knowledge through scientific expeditions.

The second element in China's external environment is the existing international order and the corresponding attitude of the Chinese government towards such an order. According to Chen (2012), the Chinese government is following the basic principles that are applied in virtually every relevant aspect of its national policy in the post-Cold War era, which are avoid confrontation, build comprehensive national power, and advance incrementally.[8] With regards to the Arctic, the current approach of the Chinese government adopts the first principle, "avoid confrontation," shown in China's support for Arctic countries' sovereignty and legal rights based on the 1982 UNCLOS, through to its application for Observer status at the AC. In Arctic affairs, the Chinese government seeks to maximize benefits via the existing order, rather than actively attempting to change that order. Indeed, even after China was admitted to be Observer at the AC, its presence is rarely seen at working groups, let alone conducting active lobbying to change the existing order (Knecht 2015).[9]

Of the eight Arctic states, Russia, the world's biggest producer of oil and gas, has become most relevant for China as resource exploration and extraction is one of the most obvious drivers of China's engagement in the Arctic. Sino-Russian relations over the past decade have been what Lam describes as "hot politics versus cold economics," in which there is enthusiasm at the top but coolness at the grassroots largely due to a period of estrangement from the early 1960s to the late 1980s (Lam 2015, 223). However, since President Xi Jinping came into power in 2013, he has taken a conscious decision to ameliorate the two countries' relations. That Xi's first official state visit as the President of China was to Moscow enforces this impression. Although it is clear that China and Russia share the view that there are growing threats from the USA (Lam 2015, 224), and that this view precisely draws the two countries closer, there is a mutual interest in increasing economic ties. Russia is seeking to reduce its dependence on the EU market following the Ukraine crisis of 2013 and subsequent economic sanctions imposed by the US and EU member states. For its part, China is trying to diversify its energy sources to meet ever-growing demand.

In March 2013, during the aforementioned state visit by Xi to Russia, various agreements were made to secure energy sales from Russia to China, as mentioned earlier in this chapter. After President Putin's visit to Beijing to commemorate the 70th anniversary of Japan's defeat in WWII in August 2015, Novatek sold a 9.9% stake in the project (worth 1.4 billion USD) to China's SRF (Lakshmi 2015). Once the deal is completed, shares in the Yamal project will be 50.1% owned by Novatek, 20% each by

Total and CNP, and 9.9% by SRF. This suggests that approximately a third of the LNG development project in the Russian North would be owned by the Chinese state.

Another important aspect in China's external environment is its special relationship with Iceland. China and Iceland have maintained full diplomatic contacts since 1971. In 2002, then Chinese President Jiang Zemin visited Reykjavik on a reciprocal visit, following that made by the Icelandic President in 1995. In 2007, China and Iceland started formal negotiations on a FTA. The FTA was signed on 15 April 2013 in Beijing, and today Iceland remains one of only a few developed European economies with a FTA with China. Currently, China enjoys a massive trade surplus with Iceland. During the period of January to September 2015, there were exports of 38,802 million ISK from China to Iceland compared to 7242.8 million ISK of imports from Iceland to China (Statistics Iceland 2016).

Iceland is one of the eight member states of the AC, but the Icelandic government has been vocal in reminding of its geographical connections to the Arctic as an Arctic coastal state, and has been critical of the so-called Arctic Five construct, which has been defined based on the delineation of the outer limits of the continental shelf according to the law of the sea (Dodds and Ingimundarson 2012). The five-term president, Ólafur Ragnar Grímsson, is an avid supporter of China's increased engagement in the Arctic (Goldenberg 2013). As an implicit criticism to the AC, which some have argued is an effective but relatively closed and opaque forum (Young 2012), in April 2013 the Icelandic President introduced a new global forum called the Arctic Circle. This new forum, which is non-profit and non-partisan, has grown to be a significant event in Arctic policy circles as a place of track I and track II diplomacy to discuss Arctic affairs among various actors, including non-Arctic states such as China. Before the AC Ministerial Meeting in Kiruna in May 2013, there was a discussion that if non-Arctic states such as China were not allowed in, they were likely to circumvent the Council (George 2013). Iceland's support for China and its proposal to initiate a separate Arctic forum that could rival the AC only few weeks before the Ministerial Meeting influenced the decision to welcome China and other Asian countries as the new Observers to the Council.

China is very conscious of its external environment with regards to its Arctic engagement, as well as how it is seen by other actors. China entered Arctic politics "at time when the region has become both more crowded and more diplomatically unpredictable" (Lanteigne 2014, 11). Indeed,

Yang Jian, the Vice President of the Shanghai Institutes for International Studies (SIIS), one of the most prominent think-tanks in China, has argued that in establishing China's role in the Arctic affairs, China must balance the three aspects: How China is seen from the Arctic states, how China is seen from other non-Arctic states and how China sees itself (Yang 2015).

The last element in China's external environment is Taiwan's interest in the Arctic. If we apply a pattern that is familiar from China's actions in other international organizations such as the World Trade Organization, International Monetary Fund, the World Bank, and the Asia-Pacific Economic Cooperation (Brady 2013), Taiwan's interest will affect China's decisions on the Arctic. In Antarctica, where the Chinese government is also active, China became interested in obtaining Observer status at the Convention on the Conservation of Antarctic Marine Living Resources when it became apparent that Taiwan was seeking Observer status. Taiwan is an island state whose economy is heavily reliant on export trade and maritime affairs. Taiwan's capital, Taipei, is located south of Shanghai, which China has designated a flagship international port and homeport for Arctic and Antarctic research expeditions. Therefore, it is not inconceivable that Taiwan is also interested in Arctic affairs, particularly in the development of the NSR.[10] Taiwan's possible interest in the Arctic affairs is not widely reported, yet the country closely watches China's developing strategy on the Arctic. As the AC Observer status is not limited to states, it would pose a challenge to the AC consensus should Taiwan ever seek to apply.

Domestic Environment

Currently, the Chinese government takes the strongest initiative to increase China's engagement in the Arctic. There are several governmental entities related to the Arctic, but the most influential actors are (Fig. 2.1):

- Ministry of Land Resources
- State Oceanic Administration
- China Arctic and Antarctic Administration
- Polar Research Institute
- Chinese Advisory Committee for Polar Research
- Ministry of Foreign Affairs
- The Central National Security Commission (CNSC)
- China Development Bank

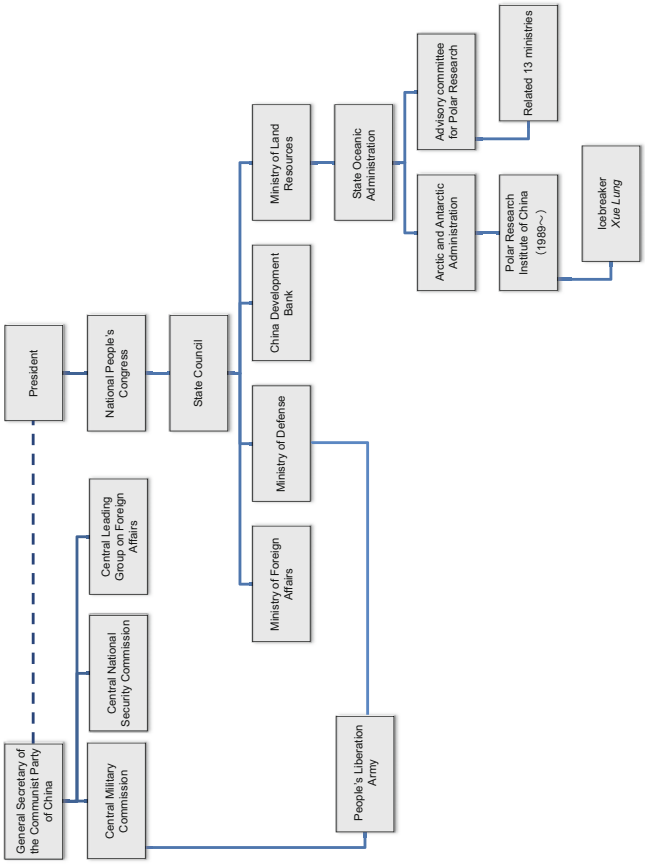

Fig. 2.1 Organigram of Chinese Arctic policy bodies. Author's own compilation

The responsibilities of the Ministry of Land Resources are defined as: "To be responsible for the planning, administration, protection and rational utilization of such natural resources as land, mineral and marine resources in the People's Republic of China." Under this ministry, the State Oceanic Administration (SAO) exists, and it is the main government body in charge of polar affairs. SAO is responsible for overall ocean affairs.

Under the SAO is the Chinese Arctic and Antarctic Administration (CAA). CAA is mainly responsible for the organization, coordination, and management of polar expeditions, as well as the formulation of polar development strategies and polar-related laws and regulations, the planning of national polar research projects, organizing and participating in ocean-related meetings, liaison with the polar institutes of Hong Kong, Macao, and Taiwan, and the funding of polar expeditions. The SOA also heads the Chinese Advisory Committee for Polar Research (CACPR). CACPR consists of experts from 13 Chinese ministries under the State Council (Ministry of Foreign Affairs, National Department and Reform Commission, Ministry of Education, Ministry of Science and Technology, Ministry of Industry and Information Technology, Ministry of Finance, Ministry of Land and Resources, Ministry of Agriculture, Ministry of Health, Chinese Academy of Sciences, China Meteorological Administration, National Natural Science Foundation of China and State Bureau of Surveying and Mapping). CACPR acts as a coordinating body on polar issues.

The PRIC was founded in 1989 and is under the auspices of CAA. It is currently China's only research institute on the Polar region both in terms of scientific and security research. The institute employs 142 staff, and approximately 40% of the staff is employed as technical and professional staff (Polar Research Institute of China 2013). PRIC is responsible for research, logistics support, and the research vessel (icebreaker) *Xue Lung*. PRIC also hosts the China–Nordic Arctic Research Center (Nilsen 2013).

The Ministry of Foreign Affairs (MFA) is in charge of international cooperation on Arctic affairs, and the Department of Treaty and Law is responsible for legal issues concerning foreign affairs and international law developments, which include climate change, law of the sea, seabed issues, polar issues, international fisheries, network security, and human rights law. The head of the Chinese delegation to the Kiruna Meeting in May 2013 was Gao Feng, who was the special representative from the Ministry of Foreign Affairs on Climate Change. Meanwhile, MFA in China's administration is given a very limited policy-making role in actual terms. MFA is said to carry out decisions made by the Chinese Communist Party

Central Leading Group on Foreign Affairs, which is headed by the Party secretary Xi Jinping and whose records of discussions not available for public. However, MFA is assigned a significant role in initiating bilateral cooperation and reviewing the "political qualifications" of a potential partner country (Jiang 2011, 71). MFA gives a priority to countries that the Chinese government has political trust, and punishes countries that went against China's political interests or taboos by stopping trade talks (Jiang 2011, 73). Also in the Arctic, MFA is part of an inseparable league of political actors and commercial actors of China's economic diplomacy abroad. For instance, at the 2015 Arctic Circle Assembly in Reykjavik, Iceland, the Chinese foreign minister Wang Yi made a video statement, setting out that China's Arctic strategy is guided by three principles: respect, cooperation, and win–win (Ministry of Foreign Affairs of the People's Republic of China 2015). This aspect of "win–win" was backed by the Chinese delegation headed by the vice foreign minister Zhang Ming, who emphasized China's contributions in the Arctic are in shipping, oil and gas exploration, and climate research, representing commercial actors of China abroad.

The new National Security Council is the most recent actor to join China's Arctic policy. In July 2015, a new national security law was passed, which emphasizes that China must defend its national security interests, including its assets and activities in the Outer Space, the deep sea, Polar regions, and cyberspace (Panda 2015). Article 32 of the national security law says (Ministry of National Defense of the People's Republic of China 2015):

> The state adheres to the peaceful exploration and use of Outer Space, the international seabed area and Polar regions, enhance safe access, scientific exploration, utilization and development capabilities, strengthen international cooperation, maintenance of our activities in Outer Space, the international seabed area and the Polar regions, security of assets and other interests.

The Chinese President Xi Jinping is the head of the new National Security Council, which was set up at the third plenum of the Central Committee in November 2013. This means the new law indicates polar issues will be brought directly under Xi's control. The ramification of this remains yet to be known.

CDB is one of China's national banks with a strong policy character. It was founded in 1994 and aims to support the development of national

infrastructure, basic industry, key emerging sectors, and national priority projects, to promote regional development and urbanization by financing small business, education, healthcare, agriculture or rural investment, low-income housing, and environment initiatives and to facilitate China's cross-border investment and global business cooperation. The CDB had long financed domestic projects since its establishment in 1994, but since 2004 the bank's international business has greatly increased. In 2005, together with the National Development and Reform Commission, CDB created a special financing scheme to support Chinese companies to expand their businesses overseas. As of the end of 2009, the remaining balance of foreign currency lending that was used to support the business expansion of Chinese businesses and to support the export of equipment was 98 billion USD. In the same year, special financing for resource development projects overseas was introduced. The conditions for these loans were to sell the resources obtained from the projects to China, allowing China to achieve so-called Loan for Oil at the amount of 47 billion USD (Sekine 2010).

The CDB constitutes China's governmental initiative to aggressively increase Chinese investments abroad, particularly in resource development projects, in order to consume the world's largest surplus of capital as well as to help Chinese businesses seek markets and assets. This has sparked discussions in some Arctic countries. For instance, in Iceland, a Chinese developer, who wanted to build an "eco-golf course" and luxury resort on a 300-square-kilometre area in Iceland's northeast corner with loans and financial support from the CDB, caused controversy (Higgins 2013). The Icelandic government eventually denied the project by refusing to waive restrictions against foreign ownership of land, as the story aroused suspicions of China's strategic interest in the region. In the case of Greenland, it brought a huge media attention in 2012, when it was reported that the government passed legislation to allow foreign workers into the country to earn salaries below the local legal minimum wage (Araújo and Cardenal 2013). The amendment was said to be in order to meet the request of the Chinese state-owned banks and companies to modify local regulations to allow the low-wage Chinese workers to work in Greenland.[11] The Chinese intention to invest in Greenland touched sensitive issues of the colonial past of Greenland and Denmark as well as the future direction of Greenland.[12] The issue of the Chinese investment was perceived so important that it became one of the central issues of the Greenlandic national parliamentary election in 2013. The Siumut Party, led by Aleqa Hammond, which was critical of the Greenlandic government's willingness to accept the Chinese

mining companies as well as their investment money, won the election, suggesting Greenlandic people's level of concern to the Chinese investment money or the conditionality it implied (Nuttal 2013).

Despite rather reluctant reactions from Iceland and Greenland, the Chinese government seems to maintain its interest to invest in the region. For instance, in early July 2013, a Chinese investment delegation visited Nuuk, Greenland to seek business opportunities in Greenland. Approximately 20 representatives from the Chinese National Bank, the CDB and two Chinese mining companies formed the delegation. As mentioned earlier, in January 2015, when London Mining, the British company developing the Isua Iron Mine, went bankrupt and was placed into receivership after incurring heavy losses at its Sierra Leone mine due to the Ebola crisis, the company's operations in Greenland were purchased by General Nice, a Chinese investment and trading group based in Hong Kong as the company saw a "great potential" in the Isua Iron Mine (Naalakkersuisut Government of Greenland 2015).

National Interests

In an interview with Chinese media, Feng Gao, who headed the Chinese delegation at the AC Ministerial Meeting in Kiruna, outlined the Chinese government's priorities in relation to the Arctic: (1) understanding of the Arctic, (2) protection of the Arctic, and (3) sustainable use of the Arctic (Yao 2013).

In the interview, Gao emphasized the importance of communicating the most basic knowledge of the Arctic to the Chinese public; referring to certain communities in China who consider the Arctic as a "terra nullius" problematic. He highlighted that the Arctic coastal countries have territorial sovereignty, including over the High Seas. In addition, the idea that efforts to understand the Arctic do not help China but they only have side effects must be corrected.

Indeed, China has a strong desire to understand the implications of a warming Arctic, due to its potentially beneficial or harmful effects because it regards itself as a "near-Arctic state." Chinese scientists agree that climate changes in the Arctic will have repercussions on China's climatic conditions, its ecosystem as well as its agriculture. Natural disasters can spark social unrest if the Chinese people regard the authorities as lacking the capability to manage the rescue and recovery process. Therefore, predicting direct impacts that climate change in the Arctic will bring to China is regarded as of utmost importance in order to

protect the country's agriculture and to possibly prevent or prepare for extreme climate conditions.

In terms of business opportunities in the Arctic, Feng answered in the above interview that for Asia as a whole it is resources (oil and gas), shipping routes, and fishery resources (offshore fishing) that are most relevant. Shipping routes will not only cut down on shipping costs of conventional container carriers but also moving gas via LNG carriers rather than pipelines may become a more cost-effective method of conversion and may be an attractive option for China, an energy-hungry country that is concerned with its energy security and one of the fastest growing markets for natural gas.

Since China officially became involved in the Arctic after the submission for Observer status at the AC and via the annual Arctic Circle Assembly, the Chinese delegation has shifted the manner in which it presents its national interest. For instance, at the third Arctic Circle Assembly held in October 2015, the panel, which included representatives from China's Polar Research Institute, COSCO and the CNPC, focused on China's Arctic interests and contributions to the region as being defined by "respect, cooperation and win–win." Specific areas that China can make such contributions are shipping, oil and gas exploration, and climate research (Ministry of Foreign Affairs of the People's Republic of China 2015). It appears that the three priorities described by Fen Gao have been given a lower priority by China's much more commercial interests in the Arctic.

Bureaucratic Interests

China's Foreign Policy and the Long-Term Strategy on the Arctic

China's foreign policy after WWII was once characterized by "a pronounced discrepancy between symbolic activism and substantive passivism" (Kim 1979, 492). In dealing with the international community such as the UN, despite being one of the five permanent members of the Security Council, China has chosen to pursue "symbolic diplomacy" with a low-profile, apprentice-like posture and has excluded itself from the group-based influence structures of UN politics (Kim 1979, 492). For domestic purposes, Chinese politicians and intellectuals have chosen a system of ideology and governance that has frequently been in conflict with global norms (Lam 2015, 263). Exceptions have tended to be in instances where global norms converged with China's national interests, prompted

by domestic pressures and external pressures, such as international human rights norms (Kent 1999, 249). In this regard, "power is placed at the core of China's perception of international politics"—China's position is defined "solely on the basis of enhancing its national interest and international influence" (Zhao 2004, 141).

In the second half of the Hu Jintao-Wen Jiabao administration (2007–2012), China purported to be a world power rather than a regional one. China began to appear much more comfortable with the idea of changing its course from being a status-quo power to becoming one determined to be more assertive in order to defend its growing national interests (Lam 2015, 190). In addition, in foreign and national policy, under Xi Jinping, the People's Liberation Army began to play a much larger role in the creation of foreign policy in general. Military officers are said to have a large influence in defining crucial concepts for China's foreign policy-making, such as national security and "core interests" (Lam 2015, 228). Although references to China's "core interests" began to appear already in 2003, it was not until 2009 that Beijing publicly and authoritatively defined them (Campbell et al. 2013). For now, "core interests" defined in the 2011 White Paper entitled "China's Peaceful Development" appear most consolidated, which reiterated that they are national sovereignty, national security, territorial integrity, and national reunification, including the country's basic political system and social stability. What is relevant for China's Arctic policy is that there could be a possibility that the Arctic could be interpreted as one of the "core interests" because these "core interests" appear to continue expanding as the country's economic and military influence overseas grow (Lam 2015, 193); as explained earlier, China's new national security law passed in July 2015 includes Polar regions, the Outer Space, and the deep sea. Furthermore, it is unlikely that Beijing will make known the full list of its core national interests for strategic reasons.

China recognizes the strategic importance of the Arctic for future oil and mineral needs. In addition, having access to Polar regions including Arctic waters and routes is crucial to China's expansion as a global great power (State Oceanic Administration People's Republic Of China 2014). Indeed, Chinese intellectuals are more comfortable arguing that given China's global prominence and rise in economic and political power elsewhere, it deserves to have a say in Arctic affairs. Li Zhenfu, Director of the Dalian Maritime University Maritime Polar Research Center, as well as Chief Expert of China's National Social Science Fund, said in a newspaper

opinion piece that China needs a grand Arctic strategy (Li 2015). He asserts that China should grasp various economic opportunities in the Arctic, by using foreign investment and advanced technology to promote transportation, economic development, and trade, particularly the development of the transport sector. This will speed up the "bringing in (*yinjin lai*)" and "going out (*zou chuqu*)" strategy, which is China's current strategy to bring foreign investment into China and to encourage its enterprises to invest overseas. Moreover, China's grand Arctic strategy must not only achieve the goals of China's opening up but also improve China's overall strength, thereby promoting China's transformation to a major power. For instance, aforementioned vice President of SIIS Yang Jian said in his paper: "[the] Arctic can become an important testing ground for China to become a world leader in certain science and technology areas … China's Arctic policy must be adapted to China's economic developmental needs, in line with China's position as a great power and on par with China's technological development" (Zhang and Yang 2015, 233).

China, however, is not so explicit in showing this intention to the outside world. This gap between external attitude and internal attitude can be seen from several aspects. For instance, Beijing encourages a multi-level, multi-agency engagement in the Arctic region and to increase China's overall presence and influence in the region, thereby strengthening the "right to speak" on Arctic affairs (Brady 2014). Beijing talks down its interests in the Arctic to foreign audiences (Stein 2015) but talks them up to domestic audiences (such as in Li (2015)).

In this regard, Beijing is very well aware of the possible reactions from the Arctic coastal states that have stronger national interests in the region, such as those related to their national identity or sovereignty. China works more collaboratively, if not reactive with countries like Canada, the USA, and Russia while exercising proactive diplomacy towards relatively more receptive Arctic states, such as Iceland, Greenland, Denmark, Norway, and Sweden. China views the Nordic countries as having been generally positive to Chinese accession to be (permanent) Observer to the AC (Hellström 2014, 32). CNARC, established in 2013, is the embodiment of this, only including the representatives from the five Nordic countries.

Nonetheless, it is possible for China to be "newly assertive on some limited range of issues while leaving other major policies unchanged" (Johnston 2013). Therefore, one should be particularly cautious about drawing generalized parallels between China's maritime disputes with neighbouring countries and Chinese foreign policy or Arctic policy at large. For now,

in the Arctic China seems to take a more conservative stand, which is to "avoid confrontation" in the multinational decision-making environment of the region, but its future course remains to be seen.

Group Interests

According to Jakobson and Lee (2013), large state-owned enterprises (SOEs) under the central government tend to have close ties with the Beijing political elite, particularly in strategic industries such as petroleum, minerals, nuclear power, and defence. SOEs can sometimes exert a significant influence on foreign policy-making, as the leaders of SOEs are members of official decision-making bodies. In the case of the Arctic, mining companies have been included in the Chinese investment delegation. In addition, SOEs that engage in mining business are given an official endorsement by the Chinese government through the government's strategy on minerals, found in its "external investment strategy essentials" in the 11th Five-year plan from 2006. Based on this, the Ministry of Land and Resources defines China's minerals strategy as follows:

1. Copper, zinc, aluminium, and nickel, which China has a short supply, domestic mines are going to be explored and developed together with foreign companies;
2. Foreign companies that deal with rare-earth materials, tungsten, and so on will be limited;
3. A complete ban on foreign companies' exploration and development for uranium minerals, as they are strategic resources;
4. The Chinese government will actively promote exploration and development of mines abroad for nickel and tungsten.

Among minerals that the Chinese government is interested in, in the case of the Arctic, Greenland has a high potential for exploitation of rare-earth minerals, copper and zinc, as well as a moderate potential for nickel and tungsten.

The tourism industry is another salient component to explain China's interest in the Arctic. Chinese tourist numbers visiting the Arctic, particularly Iceland, has increased dramatically over the last few years. A total of 14,036 Chinese tourists visited Iceland in 2012, which represents an increase of 60% compared to 2011, when the number increased by 70% from the previous year. Many of the Chinese tourists visiting Iceland also include visits to Norway and Greenland. Although for Chinese nationals special visa

rules still apply, requiring tourist groups to be organized by approved travel agencies, it is felt by Chinese travel agents that visa processes have been much smoother following the financial crisis in Europe in 2008.

In Iceland, in addition to the case of the "eco-golf resort" previously mentioned, several Icelandic and Chinese companies have been engaged in the natural water export business. Shipping companies are expected to be interested in the possibility of the new sea routes but their activities remain limited.

China and the Arctic

China's Arctic policy incorporates various tools that can be described as primarily economic or primarily political in character. The majority of China's various activities related to the Arctic, whether that be scientific research in the Arctic related to climate change, joining the AC and the IASC, or the use of the NSR for commercial shipping, are tools of commercial diplomacy (trade and investment promotion). These tools are political but the primary goal is economic. In contrast, the currency swap agreement and FTA with Iceland can be considered as tools of financial diplomacy and trade diplomacy, respectively. In this regard, the swap agreement was a less political tool but its primary goal was relatively much more political given the relatively small volume of trade between the two countries. The FTA that followed was also a political tool, although less political than tools of commercial diplomacy but more political than the currency swap agreement. Tools to secure supply of natural resources, such as the resource development projects in the Arctic region and the possibility of using the NSR to transport such resources, are placed as an economic tool aimed at achieving primarily political goals rather than primarily economic goals.

On Arctic affairs, China uses more of "political" tools of economic diplomacy to achieve primarily economic goals than "economic" tools to achieve primarily political goals. This suggests that China, for the time being, regards the economic aspect of the Arctic as being of far more important than the political aspect. China has conducted activities to secure supply of natural resources with an emphasis, shown in the scale of the resource development projects in Russia or Greenland. In addition, China has used tools of trade diplomacy (FTA with Iceland) and financial diplomacy (the currency swap agreement with Iceland). This demonstrates that China has politically driven interests in the Arctic region. Put differently, the Chinese government has not been reticent about marking that the Arctic has a political significance for China. Nonetheless, it is fair to reiterate that China's interest in the Arctic region lies in the economic

sphere and seeks to pursue economic security: the economic prosperity and political stability of a nation. This is shown through the implementation of tools of commercial diplomacy (trade promotion).

Seen from this perspective, the interests of China in the Arctic remain to secure economic gain. For China, economic security is of utmost importance, and we have seen where their policy priorities lie with regards to the Arctic. With regards to Polar policy, China has long focused on the Antarctic rather than the Arctic. It would be useful to analyse and compare China's Antarctic and Arctic policies to gain a more holistic picture of its position towards the regions that are considered "peripheral" and afar. In addition, given the low level of transparency in China's military strategies, it is necessary to continue to pay attention to the nexus of political, economic, and military policies on the Arctic as the security and geopolitical landscape changes there.

Notes

1. *Xue Long* has the capacity to carry approximately 250 personnel on polar expeditions. Research, logistics support and *Xue Long* all fall under the supervision of the PRIC.
2. Since the beginning of the 1990s, Chinese scientists conducted research expeditions in the Arctic, but the official Arctic expedition was first conducted in 1999 (Xinhua News 2002).
3. Admittedly, China has become more assertive to its near neighbours as seen in the example of building bases on reclaimed land in the South China Sea (Denyer 2015). For more discussions on China's 'assertiveness' of its foreign policy in recent years, see, for example, Johnston (2013), Jerden (2014), Lee (2013).
4. Specifically, it was the announcement of CNPC working together with Rosneft to explore three offshore blocks in the Barents and Pechora Seas and eight onshore areas (Kravchenko and Rudnitsky 2013).
5. According to Hellström (2014, 32), in an effort to achieve the accession as (permanent) Observer at the Arctic Council, China conducted active lobbying in the USA, Canada and Russia, which were sceptical about China gaining the formal status at the AC. In the Nordic countries, however, Chinese embassies did not have to engage in any actual lobbying as the Nordic countries held generally positive views about the idea of Chinese accession.
6. CNARC's research themes include: Arctic climate change and its impacts; Arctic resources, shipping and economic cooperation; and

Arctic policy-making and legislation (China–Nordic Arctic Research Center 2013).

7. Humpert (2013) offers insights on how the Chinese government views the feasibility and the future of the NSR.
8. One area that China takes a different, more assertive approach that includes military means is the territorial issue, such as the South China Sea (Fravel 2011).
9. Author conversations with the Japanese representatives at the Arctic Council, January 2016.
10. Author conversations with the officials from the Taipei Representative Office in Denmark, January 2014.
11. According to Inatsisiliorneq Lovgivning (2012), the amendment is to ensure that a foreign worker's salary and employment and working conditions are agreed with the employing company. It is debatable, therefore, to what extent the said interpretation of the amendment is accurate.
12. For more on this subject, refer to Breum (2015).

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CHAPTER 3

Japan's Arctic Policy

Abstract With a history of polar engagement, Japan takes a liberal position in the Arctic and tries to promote multilateral solutions. Japan's official Arctic policy lists global environment, indigenous peoples, science and technology, the rule of law and international cooperation, sea routes, natural resources, and national security as areas of priority. This rather all-embracing Arctic policy is due to a policy-making process of an iron triangle composed of bureaucracy, politicians, and business groups, each of which hold varying interests. Japan regards the Arctic as a region too difficult to generate any financial benefits in the short term, but sufficiently important to continue planting flags to be used in the future; in doing so, science and technology, including scientific research, is considered as a useful tool.

Keywords Japan • Arctic policy • Non-Arctic Observers • Economic diplomacy • Science and technology

In June 1941, a Japanese ship sailed towards the NSR. The fishing vessel *Kaiho* of the Japanese Fisheries Agency, led by the renowned captain Eiichi Taketomi, had an ambitious plan to sail through what is now known as the NSR and onwards to Europe, Africa, the Indian Ocean, and eventually to the Antarctic (Naganobu 2012a). Captain Taketomi's great ambition was to explore the NSR. Having successfully sailed to the Russian coast of

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the Arctic Ocean three times and to the Alaskan coast once previously, he was confident he could complete this mission (Naganobu 2012b). After the *Kaiho* reached the Bering Strait however, on 22 June Nazi Germany invaded the Soviet Union and the course of the war in the Arctic region forced the *Kaiho* to change its route and to return to Japan (Naganobu 2012a).[1] Taketomi passed away at the end of 1955, shortly before Japan sent its first Antarctic expedition in 1956, without ever sailing through the NSR from Japan to Europe. Today, the legend of Captain Taketomi and his shattered dreams live on among Japanese polar scientists.[2]

1950s–1990s: The End of Cold War and Shipping Routes

One of the reasons why Captain Taketomi is fondly remembered by the Japanese polar scientists today is because following the WWII, Japan's general interest in the Arctic did not become widely apparent until the beginning of the 1990s, except for a limited scientific focus on the Arctic during the Cold War period (Ohnishi 2013). After the introduction of the Murmansk Initiative in 1987, the Centre for Arctic Research was established at the National Institute of Polar Research (NIPR) in 1990. The Centre opened its first research station at Ny-Ålesund on Spitsbergen in Svalbard in 1991 (Enomoto 2015). Japan joined the IASC in 1992 as a founding non-Arctic state.

In 1993, the Ship & Ocean Foundation (the precursor to Ocean Policy Research Foundation [OPRF, 2000–2015] and now Ocean Policy Research Institute [OPRI], the Sasakawa Peace Foundation) began a six-year research project: "International Northern Sea Route Programme (INSROP)." The Nippon Foundation, one of the largest private foundations in Japan, funded this project and it was carried out in cooperation with the Fridtjof Nansen Institute in Norway and the Central Marine Research and Design Institute in Russia. The project was one of the first international research projects that aimed to prove the technical feasibility of the NSR as an international commercial sea lane (Liu and Kronbak 2010). According to OPRF, the project ended successfully with "abundant fruit in assessment of the insurance and legal issues of the NSR and sensible suggestions for improvements" (OPRF 2012a).

As INSROP was an international project, the Ship & Ocean Foundation decided to conduct a separate project, the "Japan Northern Sea Route

Programme (JANSROP)," in order to investigate the feasibility of the NSR for the Japanese shipping industry. Already then, the relevance of the NSR to the Asian shipping market was taken into consideration. The primary objective of the Project was "to stimulate Asian countries' interest in the NSR through the presentation of updated information of natural resources preserved in the regions with development and transportation scenarios" (OPRF 2012b).

JANSROP was conducted again approximately ten years later as JANSROP Phase II (2002–2005) and these studies resulted into the JANSROP-GIS (geographic information system). Based on research results from these research projects, however, the Japanese shipping industry concluded that the feasibility of the NSR was limited and that there were too many uncertainties to generate any financial benefits in the near future.

These activities in the late 1990s coincide with Japan's formal recognition of the role of science and technology in its economic development and diplomacy. In November 1995, the Science and Technology Basic Law was enacted and became the basis of Japan's science and technology policy. The objective of the Law was "to achieve a higher standard of science and technology, to contribute to the development of the economy and society of Japan" (Cabinet Office of Japan 2015). In a sense, the Law gave clarity on the shared understanding of the Japanese decision-makers that, in order to shake off the long recession and the end of the era of Japan as a "catching-up nation" to the Western developed economies, it was indispensable to create new industries by developing creative and high-tech scientific technologies (Akashi 2011). In addition, the Law encouraged international exchange such as exchange of researchers, international joint R&D, and international distribution of information on science and technology, and became the first law that stipulated the use of science and technology in Japan's diplomacy (Kojima 2010).

When it comes to the Arctic scientific research, however, the Japanese government began to recognize the necessity of supporting polar research only in the beginning of 2000s.[3] In December 2004, the Council for Science and Technology Policy, which is under the Cabinet Office, agreed on the Promotion Strategy of Earth Observation. This Strategy included Japan's aim to realize a long-term, continuous observation of the Polar regions and cryosphere (MEXT 2010).

2000s: The Melting Ice and the Strategic Importance of the Arctic

From 2009, the Arctic began to attract significant public attention in Japan. In April, the Japanese Vice Foreign Minister released an official statement on the 50th anniversary of the Antarctic Treaty and announced Japan's intention to apply for (permanent) Observer status at the AC (Hashimoto 2009) and in July officially submitted its application.[4] The Ministry of Foreign Affairs of Japan (MoFA) followed this by establishing an Arctic Task Force under the International Legal Affairs Bureau, Ocean Division in September 2009. Since November 2010, MoFA officials have attended AC meetings.

These shifts were complemented by nationwide, large-scale scientific research projects.[5] The Japan Consortium for Arctic Environmental Research was established under the NIPR in May 2011 and the Green Network of Excellence (GRENE) Arctic Climate Change Project (2010–2014) began. In April 2011, the National Institute for Defense Studies (NIDS) released its annual report titled "East Asian Strategic Review" that contained a chapter on "The future order of the Arctic region" and proposed a number of recommendations for the Japanese government (The National Institute for Defense Studies 2011). This report was one of the first semi-official reports from the government to consider the emerging security aspects of the Arctic and their impact on Japan's national security. The Ministry of Land, Infrastructure, Transport and Tourism (MLIT) submitted a report together with related ministries, private businesses, and advisors to indicate the NSR as a "frontier" and held a first special committee meeting inside the ministry in August 2012 to investigate the current status and future policy on the NSR (Ministry of Land Infrastructure Transport and Tourism 2012).

According to the Japanese government, the primary aim of engagement in the Arctic has been and remains understanding and protecting the natural environment. As the negative impacts of climate change became more apparent, policies related to scientific research have been given higher priority. Since May 2011, NIPR has led a nationwide project that seeks to integrate the various strands of Japanese scientific research related to climate change in the Arctic. In addition, the decision to prioritize becoming an observer to the AC has created a political momentum, which has in turn contributed to Japan's Arctic policies gathering both pace and shape. It was symbolic that just prior to the AC's decision, MoFA assigned

an Arctic ambassador in March 2013 and the Arctic was included in the central government's new Basic Plan on Ocean Policy in April. In May 2013, Japan's application for Observer status to the AC was accepted.

In July 2015, as the successor of the GRENE project (2010–2014), the Arctic Challenge for Sustainability (ArCS) project was announced, allocating 500–650 million Japanese Yen (approximately 4–5.3 million USD) a year for five years. Three agencies will implement the ArCS project (NIPR, Japan Agency for Marine-Earth Science and Technology [JAMSTEC], and Hokkaido University) and the purpose of the ArCS project is (Ministry of Education 2015):

1. To understand climate changes in the Arctic holistically as well as their global impact through comprehensive and integrated research
2. To predict future changes and assess their possible socio-economic impacts
3. To deliver robust scientific information to stakeholders for decision-making and solving problems.

The ArCS project is designed to involve virtually every single researcher in Japan who conducts research about the Arctic region. It was regarded particularly important to include the aspect of interdisciplinary research with humanities and social sciences, as well as a focus on indigenous peoples in the North in the project application.[6]

At the third Arctic Circle Assembly in Reykjavik, Iceland on 16 October 2015, the Japanese Arctic Ambassador Kazuko Shiraishi proudly announced Japan's new Arctic Policy, which had only just been approved at a Cabinet Meeting in Tokyo on that very day. The Policy lists seven areas that Japan believes must be addressed: global environmental issues, indigenous peoples of the Arctic, science and technology, ensuring the rule of law and promoting international cooperation, Arctic sea route, natural resources development, and national security (The Headquarters for Ocean Policy 2015). The Policy is based on the Basic Plan on Ocean Policy that was renewed in 2013, and is "intended to define policy for more specific measures" (The Headquarters for Ocean Policy 2015). As specific measures, the Policy lists three initiatives: research and development, international cooperation, and sustainable use (of the resources in the Arctic). Almost 70 years after the collapse of Captain Taketomi's dream of sailing the NSR, Japan is now recognized as a full-fledged, responsible Arctic stakeholder.

External Environment

For Japan, the issue of global climate change and subsequent climate changes in the Arctic is the largest element characterizing the external environment of Japan's Arctic affairs. Japan foresees that Arctic developments may have implications for Japanese interests worldwide, the greatest being protection of the global environment. Japan's environmental and science diplomacy in recent years is generally speaking liberal and this is based on Japan's subscription to the ideal of promoting multilateral solutions to global problems (Hook et al. 2012, 320). Therefore, although Japan recognized Arctic states' sovereignty, sovereign rights, and jurisdiction in the Arctic when applying to be Observer to the AC, in principle, the Japanese government believes that the Arctic "should be recognized as a part of the common heritage of mankind. The international community should protect this area and use it for peaceful purposes" (Horinouchi 2010). Japan perceives itself as having a responsibility to protect the environment of this area, as a member of the international community as well as a country actively making efforts to protect the global environment.

Japan's relations with the coastal states of the Arctic and those that have interests in the Arctic, particularly Russia, the USA, China, and South Korea, have affected the Japanese government's attitude towards the Arctic. Recognizing that Japan is not a coastal state of the Arctic, policy papers from relevant organizations have recommended strengthening ties with Russia and/or the USA in order to secure Japan's engagement in the Arctic. The Japanese media is keenly aware of the activities of other Asian AC Observer states, in particular China and South Korea. The Sankei Shimbun, which is considered to take the most conservative position among Japanese news papers, has argued that Japan has lagged behind China and South Korea in the race for further engagement in the Arctic (The Sankei Shimbun 2014).

Domestic Environment

Actors

In terms of ministerial bodies related to the Arctic, at present there is no cross-ministerial, unified organization to deal with Arctic or Polar issues. Due to the Japanese administration's characteristic of dividing labour horizontally among several ministries, issues related to the Arctic are delegated across several ministries. Among various ministries, business sectors, and research institutes, the most relevant are (Fig. 3.1):

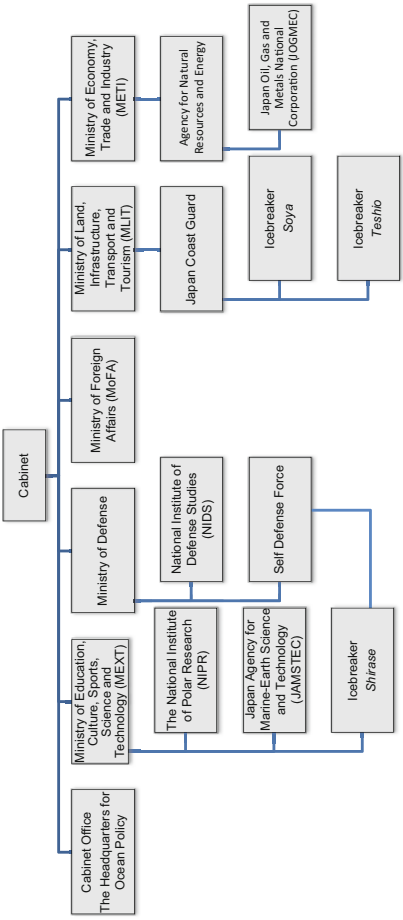

Fig. 3.1 Organigram of Japanese Arctic policy bodies. Author's own compilation

- Ministry of Education, Culture, Sports, Science and Technology (MEXT)
- Ministry of Foreign Affairs (MoFA)
- Ministry of Land, Infrastructure, Transport and Tourism (MLIT)
- The Headquarters for Ocean Policy under the Cabinet Office
- The National Institute of Polar Research (NIPR)
- The Ocean Policy Research Institute [OPRI], the Sasakawa Peace Foundation
- Shipping sector
- Ports & infrastructure industry
- Energy sector

Regarding the Japanese government's capacity to conduct maritime activities in the Polar regions, Japan owns three icebreakers: the *Shirase*, *Soya*, and *Teshio*. The *Shirase* is under the auspices of the Japan Maritime Self Defense Force (SDF). For this reason, there are legal restrictions on the scope of usage for the *Shirase*, based on the SDF Act. At present, the *Shirase* may only be used as a supply vessel for the Japanese Antarctic Research Expedition (JARE) under NIPR, and there is no significant discussion to change the relevant law.[7] The *Soya* and *Teshio* are owned by the Japan Coast Guard and only used as patrol boats, operating from Hokkaido in northern Japan (Tonami and Watters 2012).

National Interests

The Japanese government fully acknowledges that Japan is not one of the coastal states of the Arctic Ocean, therefore, with the exception of rights granted under the Spitsbergen Treaty, Japan does not have any territorial claim in terms of international law. Based on this understanding, Japan takes a position that the legal issues related to the Arctic Ocean should be addressed within the existing legal framework, whose central framework is UNCLOS.

In a 2010 presentation, Hidehisa Horinouchi from the MoFA defined Japan's perception of specific "issues" related to the Arctic as: (1) protecting and understanding the Arctic environment, (2) navigation (NSR), (3) natural resources, and (4) international legal framework (Law of the Sea). As such, the Japanese government contends that protecting and understanding the Arctic environment is the primary aim of Japanese Arctic engagement. It is regarded that Arctic developments may bring implications for Japanese interests globally, the greatest being the protection of the global environment.

Guided by the Basic Plan on Ocean Policy, a new inter-ministerial committee on the Arctic (called *Hokkyokukai Ni Kakaru Shomondai Ni Taisuru Kankei Shocho Renraku Kaigi*, or the Liaison Committee among Ministries and Agencies on Various Issues Related to the Arctic) was set up in July 2013.

Japan's interest in the NSR is officially borne by the MLIT, one of the more proactive and powerful ministries of Japan, backed by the shipping industry and related prefectural governments. This congregation of government and business regards both the verification of the feasibility of the NSR, as well as having an ability to respond if and when it becomes profitable, as matters of national interest.

Japan's interest in resource development, particularly securing energy resources, has shifted slightly since Horinouchi's presentation in 2010. As a reaction to the Great East Japan Earthquake and subsequent nuclear accident in 2011, a majority of the 54 nuclear power plants in Japan were shut down. This required Japanese electricity companies to purchase a large amount of LNG in a short period of time at a significantly higher price than normal. The higher cost of electricity production was eventually reflected in the domestic electricity price, causing much criticism from the Japanese manufacturing industry. Seizing this as an opportunity, the head of the Russian state-owned oil company, Rosneft, visited Japan in early 2012 to discuss further promoting the Sakhalin Project, which is a large-scale oil and gas development in Sakhalin Island, Russia. Japan so far is the largest importer of Russian LNG, purchasing approximately eight million tons in 2014 (Ministry of Finance Japan 2015), which is approximately 80% of LNG produced at Russia's sole LNG production site in Sakhalin (The Mainichi Shimbun 2015). Marubeni Corporation, Japan's fifth largest trading house (*sogo shosha*) announced in April 2013 that the company made a strategic agreement with Rosneft regarding the LNG project in the Russian Far East as well joint explorations and development of oil and gas fields (Marubeni 2013). At the 2015 Japan–Russia Forum, the president of Tokyo Gas, the largest natural gas utility in Japan, suggested that Japan should consider building gas pipelines from Sakhalin to Japan in order to secure lower Japan's dependency on transporting LNG via sea (The Mainichi Shimbun 2015).

Bureaucratic Interests

In the Japanese administration, discrepancies between bureaucratic organizations are augmented because of its particular form, in which

bureaucracy holds the policy-making initiative and ministries are the key organizational units. This is due to the power and function that the Japanese bureaucratic system has maintained since its initiation, even following the American Occupation after WWII, strengthening its position relative to politicians and business (Shinoda 2000, 5). Each ministry holds strong power over specific issues, and initiatives tend to emerge from the bottom-up within the ministries. Competition between ministries is fierce and their employees tend to be loyal to a single ministry; therefore, it is not unusual for horizontal cooperation to be absent across ministries (vertical fragmentation).[8] In the case of Arctic policy, as mentioned earlier, an inter-ministerial committee on the Arctic (Liaison Committee among Ministries and Agencies on Various Issues Related to the Arctic) was set up in July 2013. Their effectiveness aside, committee meetings are held according to the schedule of the Working Group Meetings of the AC in order to facilitate sharing information among various ministries.

Among ministries related to the Arctic, the MEXT that deals with scientific research has allocated the largest budget to the Arctic, mostly concentrated around scientific research and building a polar scientists' network. MEXT has a long history of involvement in the Arctic. Before Japan joined the IASC as a non-Arctic state in 1992, it was MEXT that established the Centre for Arctic Research at NIPR in 1990. NIPR has been under the auspices of the Ministry since. Thanks to the programmatic funding for Japan's Arctic Environmental Research that MEXT obtained from the government for the first time, GRENE Arctic Climate Change Research Project was launched in 2011. The ArCS Project succeeded GRENE with a strong initiative and coordination by MEXT.[9]

Among other ministries, the MoFA represents the overall Japanese position on the Arctic in international fora. In 2009, when the Japanese government officially submitted an application for Observer status to the AC, MoFA established an Arctic Task Force under the Ocean Division, International Legal Affairs Bureau in September. In March 2013, the Ministry assigned a special ambassador in charge of Arctic Affairs. After the AC accepted Japan's application for Observer status, Arctic Affairs were moved to the Maritime Security Policy Division, Foreign Policy Bureau, suggesting the Ministry's approach towards the Arctic has moved from the legal-centred to the policy-centred.

Since Japan is a so-called construction state, where many of the public projects are related to construction, the MLIT is one of the most powerful and proactive ministries of the Japanese administration. MLIT has also shown an interest in the Arctic but somewhat independently from the

other ministries mentioned above. In 2012, MLIT submitted a report together with private businesses and advisors to indicate the NSR could be a "frontier" for Japanese businesses. MLIT held a first special committee meeting inside the ministry to investigate the current status and future policy on the NSR. For fiscal years 2013–2015, MLIT allocated a small amount of funding to study the issue further, particularly the practical legal implications of using the NSR along the Russian coast with a view towards developing the sea route further.

Based on MLIT's investigation as well as stronger lobbying from the Japanese shipping industry, the Headquarters for Ocean Policy under the Cabinet Office submitted a position document for the Basic Plan on Ocean Policy, which was renewed in April 2013 (Cabinet Office of Japan 2013). Different from the previous version between 2008 and 2012, the new Plan mentioned "the Arctic" 18 times, referring mostly to the natural environment and shipping routes in relation to the Arctic. Aforementioned interministerial committee on the Arctic was formed based on this new Basic Plan.

The research institute for Ministry of Defence, the NIDS, released its annual report titled "East Asian Strategic Review" that contained a chapter on "The future order of the Arctic" in 2011 (The National Institute for Defense Studies 2011). The report summarized the environmental, political, and security situations in the Arctic region and proposed a number of recommendations for the Japanese government. This work initially stemmed from a request for discussion topics for a US–Japan Defence Policy Dialogue on the impacts of climate change on security policy. NIDS was asked to assess and describe potential impacts, and from this came work on the Arctic.[10] The report concluded that the changes in the Arctic do not pose direct security threats to Japan; based on this understanding, the interest of the Ministry of Defence in the Arctic has, thus far, been relatively subdued.

Group Interests

Japan's policy-making process is often described as an "iron triangle" that is composed of three major actors: bureaucracy, politicians, and business groups (for example see Drifte 1996). In the case of foreign policy-making, Japanese business groups play an informal yet substantial role. The bureaucracy and business groups are interdependent, in the sense that the bureaucracy relies on business groups to gather political information of interest and on their intelligence capacities. Business groups depend on the government for support and guidance on trade-related issues. This triangle appears to be observable also within Japan's Arctic policy arena.

The OPRI, a private think tank and a lobbying organization for the Japanese shipping industry and related manufacturing industries, is the most important and relevant organization for Japan's Arctic policy. OPRI has conducted several research projects on the Arctic, especially regarding the NSR. As noted earlier, already in 1993, the Ship & Ocean Foundation (the precursor to OPRI), in cooperation with the Fridtjof Nansen Institute in Norway and the Central Marine Research and Design Institute in Russia, initiated a six-year research project "International Northern Sea Route Programme (INSROP)." The project became one of the first international research projects that sought to gauge the technical feasibility of the NSR as an international commercial sea route. The Ship & Ocean Foundation conducted the "Japan Northern Sea Route Programme (JANSROP)" in parallel and carried out again approximately 10 years later.

Based on these three research projects, the Japanese shipping industry concluded that while the NSR was feasible, the numerous and significant uncertainties made it difficult to generate any financial benefits. This conclusion still lingers in the Japanese shipping industry despite the fact that the Arctic is now drawing more attention globally and in Japanese public media. OPRI is such an influential organization for the Japanese shipping industry that JANSROP's more cautious conclusions have set the tone for subsequent discussions, making industry actors wary of large-scale investments related to the Arctic.

Despite this, in the political sphere, OPRI has been active in raising the Arctic's profile. The Japanese government's greater focus on the Arctic can be partly attributed to a stronger lobby from the Foundation. In January 2014, The Ocean Policy Research Foundation (OPRF, the precursor to OPRI between 2000–2015) began collaborating with MLIT and MEXT on a new project to specifically consider the construction of a new icebreaker for Arctic observations (The Sankei Shimbun 2015).[11]

The attitude of the Japanese government at present is generally welcomed by OPRI and the Japanese shipping industry. Given the uncertainties that exist around large-scale transiting of the NSR, the relevant Japanese business community considers the independent data and information that the governmental institutions obtain on the Arctic as sufficient for the time being. For instance, the Japanese shipping industry considers short-term data and information such as weather forecasts as sufficient.

Hokkaido Prefectural Government decided to initiate its own project to look at the future role of the NSR for Hokkaido. Hokkaido is the northernmost of Japan's main islands, and officials there believe it could gain

a comparative advantage because the use of Hokkaido ports is cheaper than ports at Tokyo and Yokohama.[12] The project began in August 2012 and the final report suggested several scenarios to utilize and promote Hokkaido's geographical location as an entry point to the NSR from Asia. Tomakomai port in Hokkaido is located in the Tsugaru Strait, and it currently handles approximately one-third of Hokkaido's total cargo volume (84 million tons out of 212 million tons in 2014) (Hokkaido District Transport Bureau 2015). As the largest international trading port in northern Japan, the Hokkaido Government regards Tomakomai as crucial in the development of Hokkaido's economy. They hope to use it as a northeast Asian terminal for human and logistical support, acting as a feeder service for South Korean, Chinese, and Russian vessels. The prefectural government of Aomori, located in the southern part of the Tsugaru Strait, is interested in the repercussions of the possible increase in the use of the NSR. Aomori Prefectural Government conducts a joint research project with the Japan Aerospace Exploration Agency and MLIT to gather data of ships that use the NSR in order to investigate the future use of the Strait (Kahoku Shinpō 2015). The research showed that during September and November 2014, 32 vessels transited the NSR along the Russian coast (27 freight vessels/tanker, 1 passenger ship, and 4 research vessels) and at least 26 vessels passed through either the Soya or Tsugaru strait and 15 of freight vessels/tankers stopped at ports in China and South Korea (The Hokkaido Shimbun Press 2015).

Japan Oil, Gas and Metals National Corporation (JOGMEC) is under the auspices of the Agency for Natural Resources and Energy and has participated in an exploratory licence in the KANUMAS project in Greenland. This project began in 1989 and is a joint geological and geophysical survey in the northwest and northeast offshore areas of Greenland. An international consortium of several oil companies, such as JOGMEC, BP, Chevron, ExxonMobil, Shell, Statoil, and Nunaoil (the State oil company of Greenland), were jointly awarded the licence from the Greenlandic government (JOGMEC 2013). Idemitsu Petroleum Norge (IPN), a subsidiary of the Idemitsu group, one of Japan's largest energy corporations, has operated on the Norwegian Continental Shelf since 1989. IPN has been involved in several projects in four oil extraction sites in the region. Having obtained a licence from the Norwegian government, oil production from Knarr started in March 2015. Knarr is located 120 kilometres off the coast and was discovered in 2008 (Idemitsu Petroleum Norge 2015). It is estimated that the field contains reserves of 80 million Barrel of Oil Equivalent.

It is evident that Japan's Arctic policy involves a variety of tools and they are relatively more economic or more political in character. The majority of activities, such as the Arctic scientific research programme, joining international or multilateral institutions on the Arctic and the promotion of the NSR, can be considered as commercial diplomacy (trade and investment promotion). These tools are highly political in their character but are put in place in order to achieve primarily economic goals. The investigation of the feasibility of the NSR for Japanese businesses as well as various investment projects in the natural resources exploration in the Arctic region can be regarded as economic tools that have a slightly more political goal than an economic goal. Japan is one of the most energy-hungry nations in the world, hence the import of energy resources and security for the supply of resources are strategically important. Indeed, as careful as it has been, the Japanese administration eventually admitted the strategic importance of the NSR. In the beginning of July 2015, the National Security Council took up the issue of Arctic affairs in its four-minister meeting (Prime Minister of Japan and His Cabinet 2015). It was reported that the government now considers the NSR as a new, viable shipping route connecting Europe and Japan (The Nikkei 2015).

In October 2015, 12 Pacific Rim countries including Japan, the USA, Australia, and Singapore participating in the Trans-Pacific Partnership (TPP) reached a trade agreement, which is largely a FTA (Bergsten 2015). The TPP trade agreement with the USA can be considered as a tool of trade diplomacy, which is a political tool with primarily economic goals, but this agreement is with ten other Pacific Rim countries, suggesting its economic goals are not limited to Japan's trade with the USA or the USA as one of the Arctic states.

Seen from this perspective, Japan's Arctic engagement appears low-key and even disinterested. So why did Japan want to join the AC? It is relevant to ask this question as Japan's Arctic policy started to gather pace and shape around the time Japan made a decision to apply for Observer status on the AC.[13] This came at a time when the council was beginning to take on new responsibilities. As the Arctic region underwent climate changes—and these changes became more apparent—the council's adoption of new roles related to safety of navigation and search and rescue were viewed as an indication that the council itself was changing and that the positions of member states were shifting. The council is so far the only formal mechanism in the Arctic similar to the Antarctic Treaty System. As a major maritime nation with a long history of polar research, Japan could not overlook the importance of participation in formal discussions regarding the Arctic.

At the same time, Tokyo recognizes that it does not have a legal basis to participate in such discussions other than through the UNCLOS. Until gaining Observer status, Japan regarded it as important to at least be a part of the decision-making process and contribute to ongoing scientific research and the development of resources, sea routes, trade, and technology related to the Arctic.

It has not been immediate security threats or economic interests that have motivated this decision. Japan has judged that the potential for security problems in the Arctic is minimal, unless relations between China and Russia or Russia and the USA become severely strained. Hence, Japan is not particularly concerned that the Council does not have a mandate to discuss national or international security matters. Moreover, based on previous research findings from OPRF, the Japanese shipping industry has long ago concluded that any benefits from developing the NSR are, under current conditions, too fragile to present significant financial or logistical advantages over existing routes. Instead, Japan regards its decision to join the AC and collaborate with Arctic states on research and development as a step to secure future rather than present interests.

In Japan's view, scientific research is what it does best as a technologically advanced industrial nation. Japan also believes that this is what the AC expects it to do. The natural environment of the Arctic is fragile and requires large-scale, costly research in order to understand the possible repercussions of climate change. Therefore, as long as its capacity allows, Japan will continue to plant flags in the Arctic to be used tomorrow—fostered by the vertical fragmentation of the Japanese administration and the iron triangle of bureaucracy, politicians, and business groups.

Japan's Climate Change Policy

Japan's climate change policy is part of the country's global environmental policy. We saw earlier that Japan places a great emphasis on the Arctic environment, therefore it is worth paying attention to Japan's Climate Change policy, which can be characterized as a form of baseline for Japan's Arctic policy.

Japan's attention to the climate change issue began around the period when the World Commission on Environment and Development was commissioned in 1983. The Commission had one Japanese member, Saburo Okita, an influential economist and high-ranking official. Japanese public attention on environmental problems had been high due to the experience

of rapid economic growth and subsequent environmental problems such as air and water pollution during the 1960s and 1970s. In 1990, the Japanese government released the Action Program to Arrest Global Warming in order to maintain the emission level of CO_2 to the same level as that of 1990. This programme was a collection of diverse measures to stabilize the level of CO_2 emission at 1990 level after 2000. Annual reports were submitted to related ministerial meetings after 1990, but the emission continued to increase and Japan could not achieve its ambition. During this period, the United Nations Framework Convention on Climate Change (UNFCCC) came into effect in 1994 and the annual Conference of the Parties (COP) began from 1995.

Japan aspired to world leadership within a significant policy area. As it could not dominate finance and a military role was not an option (Kagawa-Fox 2012), Japan came to regard the global environment as an area in which it could excel. Japan volunteered to become a host country to the third Session of the COP to the UNFCCC (COP3), which was eventually held in 1997 in Kyoto. At the Conference, Japan committed to cut its emissions of six types of Greenhouse gases (GHGs) such as CO_2 to 6% below 1990 levels during the first commitment period (2008–2012). In 1998, the Global Warming Prevention Headquarters under the Cabinet Office released the General Framework of Promotion of Global Warming Countermeasures. The Framework summarized various countermeasures to global warming that should be implemented immediately towards 2010.

In the same year, Japan enacted the Law Concerning the Promotion of Measures to Cope with Global Warming (1998). The Basic Plan Concerning the Measures to Cope with Global Warming was endorsed by the Cabinet in 1999. These became the foundation of Japan's domestic measures against global warming (climate change). Other domestic measures include revisions of the Act on the Rational Use of Energy. However, it became apparent that only 17–19% of the countermeasures defined in the General Framework required the achievement of numerical targets (Kiko Network 2004), which was deemed far from sufficient in order to achieve the commitment Japan made at COP3. In addition, experts criticized that suggested countermeasures were merely symptomatic therapy; as mentioned earlier in this chapter, Japan being a "contruction state," the majority of measures were public construction projects such as roads to ease traffic congestions, nuclear power plants that released zero carbon, and the management of national forests (Kiko Network 2004), showing that

there were no drastic new measures that were purely designed to counter global warming.

In September 2009, then-Prime Minister Yukio Hatoyama announced the Hatoyama Initiative, in which Japan would aim to reduce its emissions by 25% by 2020, if compared to the 1990 level, premised on the establishment of a fair and effective international framework by all major economies and agreement on their ambitious targets. In December 2009, at COP15 in Copenhagen, Denmark, Japan announced that it would provide financial assistance to developing countries "which are taking active emission reduction measures or those which are vulnerable to the negative impacts of climate change," of approximately 1 trillion 750 billion yen (about 15 billion USD) (Ministry for Foreign Affairs of Japan 2009). Based on this Initiative, Japan achieved 15 billion USD pledge and 17.6 billion USD implemented as of December 2012 (Ministry for Foreign Affairs of Japan 2012). Japan continues to be proactive in global environmental affairs, however after the Great East Japan Earthquake and subsequent nuclear accident in March 2011, Japan was forced to decrease its reliance on nuclear power generation. Subsequently, Japan had to drop a rather ambitious target of 25% reduction compared to 1990 level to 3.8% reduction to 2005 level under the assumption that there were no nuclear power plants.

Kagawa-Fox points out the Japanese government applies three strategies to its global environmental policy: collaboration with Japan's big businesses, allocation of official development assistance (ODA), and the promotion of environmental, "green technology" (Kagawa-Fox 2012, 68). These strategies are evident in Japan's climate change policy as well. For instance, it was extremely difficult for the Japanese government to enforce drastic and effective countermeasures to global warming due to fierce oppositions from Japan's business community such as Keidanren (The Nikkei 2010). The Japanese business community regarded the implementation of regulations and environmental taxes as counterproductive, hindering economic activities and growth (Keidanren 2006). To offset a state of inertia inside Japan, the government used environmental ODA based on the Hatoyama Initiative to show Japan's commitment to reducing GHGs. Environmental ODA was often provided as technical transfer for mitigation and adaptation.

The implementation of policies based on a composite of these three strategies served two purposes. A diplomatic purpose, which is for Japan to be a world leader in the area that Japan excels: Japan-brand technology, and a domestic purpose to help domestic industry by creating a favourable

environment for domestic industry through ODA. Keidanren declares its commitment to a domestic industrial strategy, where the public and private sectors collaborate, and to promoting the widespread use of Japan's advanced technology in other countries (Okano-Heijmans 2012). In this regard, despite the fact that it started with more ecological intentions, over time, Japan's climate change policy began to show stronger characteristics as commercial diplomacy, where trade and investment are promoted and business advocacy takes place. This was based on cooperative efforts by the Japanese government and private sector to sell technologies that are considered to have a strong competitive advantage (Okano-Heijmans 2013, 71).

Japan's Arctic policy and its environment show similar signs to Japan's climate change policy, such as collaboration with (and influence from) Japan's big businesses and the promotion of Japanese technology abroad. For the time being, however, because the Japanese businesses consider the Arctic as yet a somewhat barren environment to make large business investments, cooperation in science and technology to increase Japan's international profile can be at the forefront of Japan's Arctic policy.

Japan's Whaling Policy

We saw earlier through examples of the Arctic governance and climate change policy that Japan's environmental and science diplomacy in recent years is, generally speaking, liberal and attempts to promote multilateral solutions. Meanwhile, Japan's controversial research whaling policy in the Antarctic (Anton 2009) is worth attention as it stands out as a peculiar example.

Japan joined the International Whaling Commission in 1951 and under the International Convention for the Regulation of Whaling, Japan implemented a commercial whaling moratorium in 1986. Meanwhile, in 1987, Japan started its first research whaling programme in Antarctica called JAPRA (The Institute of Cetacean Research 2013). The programme ended in 2004 but was immediately succeeded by JARPA II. Japan's continuation of whaling has received much criticism, especially from abroad, examples being direct anti-whaling actions against Japan's Antarctic whaling expedition by the anti-whaling NGO Sea Shepard since 2007 (Sea Shepherd 2008), or the case brought by Australia against Japan regarding whaling in the Antarctic at the International Court of Justice (ICJ), which Japan lost (International Court of Justice 2014). The Institute of Cetacean Research (ICR) is an independent research institute that specializes in the biological and social sciences related to whales and the main body to conduct

research whaling in the Antarctica with the permission of the Japanese government. According to the ICR, Japan's objective with regards to whaling is to "resume commercial whaling for abundant species on a sustainable basis under international control" (The Institute of Cetacean Research 2013).

The Japanese government's official position regarding research whaling, at least until the ICJ's ruling, was that, "as with any other marine life, whales are a natural resource and can be utilized as such, so long as this is done in a manner that is supported by the best scientific evidence available to be sustainable" (Ministry of Foreign Affairs of Japan 2013). Three entities are relevant to Japan's whaling policy: the Japan Fisheries Agency under the Ministry of Agriculture, Forestry and Fisheries, the ICR, and the MoFA. According to Morikawa (2009, 1), the Japanese government has allowed the whaling issue to "take on a magnitude and significance far beyond its actual importance" and "has made the continuation of whaling a national goal and a matter of national pride." Seen from this perspective, the Japanese government has two aims: to quickly achieve the legalization and re-expansion of deep-sea commercial whaling to pre-1982 levels, and to mobilize public opinion in favour of whaling within Japan (Morikawa 2009, 5). Research whaling is one of Japan's most controversial global environmental policies, let alone the country's external policies. If we accept the Japanese government's position, research whaling can be considered as a tool of commercial diplomacy. However, given that whaling is actually neither a major economic issue nor a matter of vital national importance for Japan, it is a diplomatic tool that is used in the international fora but serves as a tool to achieve political goals in domestic politics.

In March 2014, The ICJ delivered a judgement of the case and ordered a temporary halt to Japan's annual slaughter of whales in the Antarctica after concluding that the hunts could not be considered as scientific research despite Japan's claims (International Court of Justice 2014, 14). Almost a year later in March 2015, Japan resumed its research on whales in the Antarctica without killing any whales for the first time. Yoshimasa Hayashi, the Minister of Agriculture, Forestry and Fisheries at the time, commented "(we) would like continue our research and collect scientific data thereby resume our commercial whaling. With persistence, (we) will continue to persuade countries that are against it" (The Asahi Shimbun 2015).

Despite his official comment, there was no outcry over the ICJ judgement from the Japanese public. An online survey conducted by the

Nikkei showed that approximately half (54.3%) of 1968 people (92% men 8% women) who participated in the survey viewed the ICJ judgement as appropriate and answered that (commercial) whaling is a dispensable industry for Japan (52.5%) (The Nikkei 2014). In addition, more than half (56.5%) think that, based on the ICJ ruling, Japan should stop research whaling abroad and limit it to the coastal areas of Japan. This alienation of domestic politics of whaling from public opinion shows that the issue of research whaling has long been used as an external tool to achieve certain goal(s) in the domestic political arena.[14]

Differently from the whaling policy, so far Japan's domestic environmental politics on the Arctic has not appeared nor overwhelmed its external policy. However, the issue of whaling in Antarctica gives interesting insights about Japan's commercial, economic, and scientific diplomacy as well as the intersection of domestic and international environmental politics.

Notes

1. Japan attacked Pearl Harbour on 7 December 1941 and invaded the Aleutian Islands, which lay in the Pacific Ocean between Alaska, USA, and Japan, in June 1942.
2. Author's conversations with a Japanese polar scientist, November 2015.
3. A renowned Japanese Aurora scientist, Syun-Ichi Akasofu had been instrumental in the late 1980s to the late 1990s to establish one of the first international research centres on the Arctic and climate change at the University of Alaska Fairbanks, funded both by the US and Japanese governments (International Arctic Research Center 2015). Akasofu played an important role in persuading the Japanese government to formally start Japanese scientific programmes on the Arctic (Author's conversations with a Japanese polar scientist and a MEXT official, April 2015).
4. Prior to this, Mead Treadwell, then Chairman of the US Arctic Research Commission and John Farrel, the Executive Director of the United States Arctic Research Commission visited Japan in November 2008 (Subcommitee of the comittee on appropriations United States Senate, 2009). During the visit, they attended the First International Symposium on the Arctic Research (ISAR-1) and visited related ministries and research institutes to lobby for Japan's application to Observer status at the AC (Author's conversation with a Japanese polar scientist, December 2015).

5. In March 2010, MEXT released a draft report titled "Regarding institutional cooperation for the observation of the cryosphere." In the following June, the "Arctic Research Examination Working Group" was established within MEXT and in August, the Working Group released an interim report. The report proposed to establish the Consortium for Arctic Environmental Research in order to facilitate cooperation between related research institutions and to strengthen Arctic research. The development of a "Research Program on Arctic Climate Change" was recommended as well. In December, MEXT obtained programmatic funding for Arctic Environmental Research, starting fiscal year 2011. The funding was intended to extend over five years, until fiscal year 2015.
6. Author's conversations with a MEXT official, April 2015.
7. JAMSTEC owns an oceanographic research vessel called *Mirai*, which has the ability to conduct research in the Arctic Ocean (The Nikkei 2014).
8. See Reed (1981) and Park (2010) for more on vertical fragmentation (*tatewari gyosei*) within the Japanese administration.
9. Author's conversations with MEXT officials, April 2015.
10. Author's interview with the NIDS researchers, October 2012.
11. The purpose of building an Arctic-specific icebreaker is to overcome a specific legal restriction on the *Shirase* that it can only be used as a supply vessel for the JARE.
12. Author's interview with the Hokkaido Government officials, October 2012.
13. This section is based on an essay originally published as "Future-Proofing Japan's Interests in the Arctic: Scientific Collaboration and a Search for Balance," in the roundtable "Polar Pursuits: Asia Engages the Arctic," Asia Policy, no. 18 (2014): 52–58. Asia Policy is a journal published by The National Bureau of Asian Research (NBR). Reprinted with the permission of the publisher.
14. In November 2014, the Japan government announced a new scientific whaling program called 'New Scientific Whale Research Program in the Antarctic Ocean (NEWREP-A)'. In addition, on 6 October 2015, Japan made a new declaration related to the ICJ. Japan declared "considering that, as Japan is a State Party to the UNCLOS and continues to observe its obligations, it is more appropriate, as long as there is no special agreement, to apply dispute settlement procedure under the UNCLOS that establishes provisions regarding living resources of the sea as well as the involvement of experts from the scientific or technical perspective when an international dispute arises with respect to research on, or conservation,

management or exploitation of, living resources of the sea," in relation to the ICJ judgement on Japan's scientific whaling (Ministry of Foreign Affairs of Japan 2015).

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CHAPTER 4

Arctic Policy of South Korea (Republic of Korea)

Abstract Despite its recent entry into the Arctic arena, South Korea envisages itself as a future Polar leading nation with an official Arctic policy that aims to strengthen international cooperation, scientific research activities, and Arctic business. Supported by the *chaebol* big business groups, Korea openly expresses its interest in exploring commercial opportunities in the Arctic. Korea attempts to kill many birds with one stone; Korean modern technologies can be used to solve environmental problems in the Arctic while boosting the Korean domestic economy, thereby enhancing Korea's international profile. Meanwhile, Korea's ability to swiftly adapt to changing internal and external environments, newly established or adjusted policies and institutions can lack a holistic view on the matter to be tackled, as, for example, tensions over maritime safety policy show.

Keywords South Korea • Arctic policy • Green Growth • Non-Arctic Observers • Maritime safety

Given its relatively recent entry into Arctic-related activities, South Korea has achieved a lot in its pursuit of further engagement. Similar to China and Japan, South Korea's polar activities have primarily centred on Antarctica, starting from the late 1980s. South Korea became involved in the Polar region via scientific research when it joined the Antarctic Treaty in November 1986. In 1987, a research department dedicated to the

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Polar regions was set up at the Korea Ocean Research and Development Institute (KORDI), now the Korea Institute of Ocean Science and Technology (KIOST). In the following year in 1988, the King Sejong Research Station was established in Antarctica. The country's engagement in the Arctic began with scientific research as well with a preliminary study on the Arctic during 1993–1995.

When the AC was established in 1996, South Korea increased its interest in Arctic research and started conducting joint research with Japan (Park 2014). However, because of lack of capacity, the Arctic research often had to be an international joint project. In 1999, two scientists conducted marine research with the Geological Survey of Japan, and South Korea dispatched two researchers to the Chinese icebreaker Xue Long to explore the Bering and Chukchi seas (Park 2014). In August 2000, a joint marine research was conducted with Russia's Arctic and Antarctic Research Institute and the research organization of the Ministry of Natural Resources and Environment.

In 2001, the Korea Arctic Scientific Committee was established. This laid the foundation for independent research, and in 2002 South Korea became a full member of the IASC and opened its first research station in Svalbard. A brief study was conducted on the Arctic sea route in 2003 (Choi and Cho 2003: cited in Park 2014) and in 2004, the Polar Research Centre at KORDI was expanded to create the Korea Polar Research Institute (KOPRI). In the meantime, Korea submitted its application to be (permanent) Observer to the AC in 2008, after China's submission but much earlier than other Asian applicants. In July 2009, two cargo ships departed from Ulsan and arrived in Rotterdam via the Bering Sea and the Arctic Ocean (The Telegraph 2009). This became Korea's first use of the NSR. In November in the same year, Korea launched the research vessel *Araon*. This meant Korea finally achieved an independent research capacity for the Polar region.

From this achievement, Korea's Arctic engagement sped up in all directions. In 2010, four vessels from Korea made the NSR journey and the Korea Gas Corporation (KOGAS) signed a Farmount and Joint-Venture Agreement with Canada-based energy company Encana on the development of the mining fields at Kiwigana and Wet Cutbank in northeast British Columbia, Canada (KOGAS Canada Ltd. 2012, encana 2012). In 2011, 34 vessels from Korea used the NSR and South Korean shipping companies attempted to plan trial navigations to the Arctic (although unsuccessful).

In September 2012, the South Korean government held the First Policy Forum for an Arctic Strategy. In the Forum, Yeon Young-Jin, at that

time the marine policy director of the Ministry of Land, Infrastructure, and Transport (MOLIT), proposed developing a mid-to-long-term Arctic plan and business model, stronger "bipolar" research capacity, and coordination of Polar region policies to form a basis for future Arctic policies (Yeon 2012: cited in Park 2014). The pinnacle of the year 2012 was then-President Lee Myung-Bak's visits to Greenland and Norway, which led to several Memorandums of Understanding (MOUs) with related institutes. His visits were widely covered by the Korean media, contributing to raising awareness of the Arctic region among the Korean public. Against this background, in November, MOLIT announced measures to modernize polar region policies, including the pursuit of bipolar policies, the formation of a new government department for the Polar regions, and a pan-governmental council to coordinate the policies of different departments. Ten ships from South Korea used the NSR out of total of 46 ships in 2015.

In February 2013, the new administration of President Park Geun-hye took office. The Ministry of Oceans and Fisheries (MOF) was restored and immediately given the task of developing a master plan for Korea's Arctic policy. On 25 July, MOF in cooperation with other related ministries, announced the Pan-Government Arctic Policy Master Plan. The Plan set out a vision of Korea as "a Polar leading nation that opens a sustainable future of the Arctic" reflecting Korea's new Observer status to the AC from May 2013. As the Plan was announced, then MOF Minister Yun Jinsuk declared the need to promote a Pan-Government Arctic Policy based on the Plan, while admitting it was essential to collaborate with the Arctic coastal nations as their exclusive rights were recognized in the Arctic Ocean (The Ocean Policy Research Foundation 2014, 84).

The three core principles of the Arctic Policy Master Plan are:

1. The establishment of an Arctic partnership for the international society to address challenges;
2. Enhancement of scientific research for better understanding of the Arctic natural system;
3. Sustainable development of Arctic business.

Major targets of the Plan were set as (Kim 2014a):

1. To facilitate international communication with the AC and related international organizations, other new Observer states such as China and Japan as well as non-government stakeholders;

2. To enhance scientific and technological research capacity such as station facilities, icebreaking research vessel, Arctic climate change research, and spatial information. This includes the expansion of the Arctic *Dasan* Station and the consideration of the second research icebreaker;
3. To participate in sustainable Arctic business development such as sea routes, resource development, shipbuilding, and offshore plant development and fisheries. For example, continuing discussion on joint exploration with Greenland, with whom Korea has an existing MOU, and promoting additional MOUs on resource development with other Arctic coastal states;
4. To arrange a domestic institutional mechanism for Arctic cooperation.

In October, a Korean shipping liner, Hyundai Glovis completed Korea's first cargo transportation through the NSR after a 35-day navigation (Ministry of Oceans and Fisheries Republic of Korea 2014). In December 2013, the Basic Arctic Policy was implemented in cooperation with seven ministries (MOF, Ministry of Trade, Industry, and Energy [MOTIE], MOLIT, MOFA, Ministry of Science, ICT, and Future Planning [MSIP], Ministry of Environment [ME], and Korea Meteorological Administration [KMA]) and government-funded research institutes such as KIOST and Korea Maritime Institute (KMI).

The Policy set 31 priorities for the period of 2013 and 2017 and suggested four strategies (The Ocean Policy Research Foundation 2014):

1. Strengthen international cooperation—Expand activities at the AC; enhance activities at international institutions related to the Arctic such as the Circumpolar Business Forum, the Arctic Circle, or Arctic Frontiers Conference; vitalize cooperation in the civil arena, such as offering a weather monitoring programme for indigenous peoples in the Arctic or an educational programme at the Korea Maritime Institute, or joining the University of Arctic;
2. Enhance scientific research and research activities—Enlarge a basis for research and related activities; establish "Korea Arctic Research Consortium" as industry–university–government cooperation; strengthen climate change research; construct a spatial information system of the Arctic;
3. Development and promotion of Arctic business—Support the development of the Arctic Sea Routes and shipping and port industries;

cooperation in resource development and the development of shipbuilding and offshore plant technology; construct ships for polar shipping; develop Arctic shipping techniques in coordination with the Polar Code; cooperate in fishery resource management by joining the North East Atlantic Fisheries Commission;
4. Prepare an institutional basis—Push through the "bill to promote Polar activities" (2013) and related laws (2014–); construct an information system for the Polar regions.

External Environment

South Korea has a special relationship with one of the major, if not the most important Arctic coastal states: Russia. South Korea has enjoyed relatively stable and mutually beneficial relations with Russia, particularly compared to the other Asian countries discussed in this book. As Russia's Ambassador to South Korea, Konstantin Vnukov, put it, "there is no unsolved problems between Russia and South Korea." (VOR 2015). The relationship between the two countries is based on a complex triangle of relations between South Korea, Russia, and North Korea (the Democratic People's Republic of Korea). After the Korean War (1950–1953), North and South Korea made a cease-fire agreement but the two countries remain officially at war with one another. Russia borders North Korea in its Far Eastern Region and the communist Soviet Union acted as an important ally for North Korea. To date, Russia plays an integral part in Korean affairs (Kim 2002, 103).

After WWII, South Korea and Russia virtually had no contact for four decades, but in the late 1980s Moscow could no longer ignore the rising economic power of South Korea and the fear of communism was diminished in an increasingly democratic and prosperous South Korea (Kim 2002, 117). In 1990, ROK–Russia relations were normalized. Russia regards South Korea as a potential pillar of support for its economic resurgence and integration into North East Asia and North Korea as a key to its diplomatic and geopolitical resurgence (Kim 2002, 108). Russia has an ambition to use South Korea to the benefit of Russia's economy, especially modernization of its Far East (Kim 2002, 122), which is particularly high on the agenda of the Russian President Vladimir Putin. In return, South Korea wants access to Russia's natural resources and military and space technology and wants to see Moscow use its influence in Pyongyang to push forward inter-Korean dialogue. Contrasting sharply with Japan, which considered South Korea as a

like-minded country until 2015, South Korea has not agreed to impose any sanctions on Russia after the Crimea Crisis in 2014.

In Arctic affairs, South Korea attempts to leverage this special relationship with Russia. In September 2008, then-President Lee Myung-Bak and then-Russian President Dmitry Medvedev agreed to cooperate on the construction of the Russia–North Korea–South Korea gas pipeline. With both presidents present, South Korea's state gas company KOGAS and Russia's Gazprom signed a MOU on natural gas supplies from Russia to Korea (OAO Gazprom 2008). This project was already first suggested in the early 1990s as part of President Roh Tae-woo's North Korea policy, but continues to be bilaterally discussed until today. South Korea also agreed to collaborate with Russia as well as North Korea in a railroad construction project to extend the Trans-Siberian Railroad to the Korean peninsula (RT 2014), which Moscow hopes will contribute to restore peace between two Koreas.

Domestic Environment

Actors

There is not yet a cross-ministerial, unified organization to deal with Arctic or Polar issues. Major ministries concerned with the Arctic affairs are:

- Ministry of Oceans and Fisheries (MOF)
- Ministry of Foreign Affairs (MFA)
- Ministry of Science, ICT and Future Planning (MSIP)
- Ministry of Trade, Industry and Energy (MOTIE)
- Ministry of Land, Infrastructure and Transport (MOLIT)
- Ministry of Environment (MOE)
- Korea Meteorological Administration (KMA)
- Korea Polar Research Institute (KOPRI)
- Korea Maritime Institute (KMI)
- Korea Institute of Ocean Science and Technology (KIOST)
- Shipping Sector
- Ports & infrastructure industry
- Energy Sector
- Fisheries Sector

The South Korean government's capacity to conduct maritime activities in the Polar regions is centred around its research icebreaker, *Araon*.

The icebreaker is designed to navigate ice-covered Polar regions and used for both logistics for the polar stations and research as it has research equipment that can be used to conduct research of geophysics, biology, and oceanography (Korean Polar Research Institute 2016). The use of *Araon* is not limited to pure science; it can also be used in the search for natural resources, such as methane hydrates.

National Interests

In the policy arena, South Korea identified the Arctic as a priority before the AC welcomed South Korea as one of the new Observers. President Park Geun-hye announced 140 national priorities in February 2013, and the Arctic was among the ones identified to help the country achieve what she dubbed the "creative economy" (18th Presidential Transition Committee 2013). According to Park's definition, "creative economy" is a form of economic activity that creates added value by removing borders between existing industries, such as through the integration of science and technology with industry or the merger of culture and industry (Kim 2013). Developing the NSR and the Arctic Ocean was the 13th most important task to be accomplished in the next five years, according to the national priorities Park outlined.

Unlike some other Asian countries, South Korea is not hesitant to express its interest in exploring new energy sources in the Arctic. In addition, the MOFA emphasizes the importance of securing energy sources and the potential that the Arctic offers to achieve this. South Korea is the tenth largest energy consumer in the world and the fifth largest crude oil importer. In 2012, South Korea imported 96.4% of its energy resources, and while the Middle East remains critical, South Korea would like to lower its dependence on Middle Eastern oil by diversifying energy sources (Bae 2013).

The South Korean government's national Basic Energy Plan 2008–2030 set the direction for this. The plan emphasized the necessity of long-term energy diplomacy and listed three goals: securing stable energy, expanding demand, and enhancing supply.

Dependence on imported energy is as high in other East Asian countries such as Japan, but because South Korea is a latecomer in securing energy resources abroad, the country has not hesitated to express its eagerness to engage and invest in energy development projects in the Arctic. Using its icebreaker Araon, South Korea led a research survey

into the Beaufort Sea in September 2013 to look for sub-sea permafrost and methane hydrates (Bennett 2013).

As a maritime nation, another relevant aspect of the Arctic for South Korea is the possibility of using the NSR for shipping. As mentioned earlier, in October 2013, the country made its first commercial freight voyage using the route. The government, as explained in the national Basic Energy Plan, sees the possibility of combining these two interests: exploration for oil, gas, coal, iron, and other resources in the Arctic region and the use of the NSR as an eventual shipping route for these resources. To achieve these goals, the government regards cooperation on energy with Arctic states as essential, and it also sees this as a way of enhancing South Korea's international profile, an important and urgent goal for a country that has rapidly become one of the world's developed economies.

In South Korea's Arctic policy, there is a strong influence of the Green Growth concept as the Ambassador of South Korea to Norway Lee Byong-hun said in 2013: "Korea's interest in the Arctic region is in line with its endeavour towards global green growth" (Lee 2013a). The concept of Green Growth was first announced by then-President Lee Myung-bank in August 2008 as the new Low Carbon, Green Growth vision. Former President Lee came to power in late 2007 promising to revive economic growth, but his presidency was hit early and hard by the global economic recession. The Green Growth vision was suggested as a prescription to get South Korea's economy back on track (Tonami and Müller 2014).

The concept belongs to the school of ecological modernization. In the theory of ecological modernization, it is believed there are modern technologies which can have an enormous potential for stretching the ecological boundaries and reduce negative environmental effects, such as in energy production, agri-business, biological and chemical sector, and ICT (Horlings and Marsden 2011). Based on this line of thought, the Green Growth concept regards environmental protection and economic growth as not mutually exclusive; rather, green technologies can be used as efficient responses in dealing with the negative impacts of climate change.

The introduction of the Green Growth concept had domestic and external purposes for South Korea. The domestic purpose was to boost the declining domestic economy with Korea's modern technologies while solving environmental problems, in a sense killing two birds with one stone. In 2009, the South Korean government introduced the National Strategy for Green Growth, the first five-year national economic development plan since 1996 (Korea Economic Institute of America 2011). The Green New

Deal allocated 38.1 billion USD over four years to stimulate the domestic economy by fostering new green growth engines such as renewable energy, green building, and low-carbon vehicles (United Nations Environment Programme 2010). The external purpose was to use the paradigm to establish South Korea as a truly global player (Watson 2011, Kalinowski and Cho 2012). The Global Korea marketing initiative was announced on 22 January 2009, almost simultaneously with the Green New Deal. The Low Carbon Green Growth paradigm became a defining component of Global Korea activities. In the process, South Korea's own understanding of itself has also changed from that of a country catching up with the rich developed world to a country taking the lead on global governance issues (Tonami and Müller 2014).

The concept remains reasonably strong in South Korea even after the new administration by Park Geun-hye took office in 2013, which has continued to exercise Korea's middle-power diplomacy since the post-2008 financial crisis period. Through middle-power diplomacy, South Korea attempts to project its role in international affairs as a "facilitator, interlocutor and norm entrepreneur focusing on international security, development and environment" (John 2014). Hosting of international organizations like the Global Green Growth Institute and the UN Green Climate Fund in South Korea are examples of this approach. In a similar vein, the Arctic is a perfect space to exhibit Korean diplomatic entrepreneurism in the emerging international order. While China and Japan look towards the Arctic states for cooperation on Arctic affairs, South Korea is more active in promoting cooperation between Observer states, particularly between China, Japan, and South Korea, as stated in the Pan-Government Arctic Policy Master Plan (Gong 2015).

Bureaucratic Interests

Although it is not a unified, cross-ministerial body solely responsible for polar affairs, MOF is the principal ministry that takes the lead in forming Korea's Arctic policy. MOF of Korea was first formed in 1996 just after the UNCLOS entered into force to deal with new frameworks of maritime affairs, such as UNCLOS and other measures to achieve the sustainable development of the oceans (Ministry of Oceans and Fisheries Republic of Korea 2016). South Korea's central government ministries are often reorganized when the new administration takes office, partly in order to remove the influence from the previous President and to consolidate the foundation of

the new administration. In 2008, when the administration led by President Lee Myung-Bak took office, MOF was dissolved into the Ministry of Land, Transport, and Maritime Affairs and the Ministry of Agriculture, Food, and Rural Affairs as the President shrunk the government from 22 to 17 ministries, attempting to achieve a small but effective government. In 2013, when Park Geun-hye became the new President, MOF was reinstated to integrate Korea's maritime, port, and fisheries policies. By doing so, the administration attempted to improve the government's capacity to respond to various issues related to the oceans, including territorial issues and resource development (Ministry of Oceans and Fisheries Republic of Korea 2016). MOF took the initiative in preparing Korea's Pan-Government Arctic Policy Master Plan. The inclusion of fisheries and fishery resources in the Policy reflects MOF's ministerial interests in the Arctic.

Meanwhile, the tragic sinking of MV *Sewol* on 16 April 2014 shook the whole country and has affected South Korea's maritime policy since. The *Sewol* ferry capsized and sank off the coast of South Korea, and only 172 of the 476 passengers were rescued. Particularly tragic was that 250 passengers of the 304 confirmed dead or listed as missing were pupils from the same high school (Ministry of Oceans and Fisheries Republic of Korea 2016). After this accident, the South Korean government immediately embarked upon a comprehensive review of a maritime safety management system and related bills. On 19 May, President Park Geun-hye announced response measures to the accident, including the establishing of a national safety agency and plans to dissolve the Coast Guard and to reform the civil service centring on MOF (Ministry of Oceans and Fisheries Republic of Korea 2016). The Ministry of Public Safety and Security was founded. In September, The Bill on Revitalization of the Marine Fishery Economy was released to explore possibilities in marine fishery industry and as a follow up to Park's "creative economy" (Ministry of Oceans and Fisheries Republic of Korea 2016). The bill included measures to improve the safety of maritime transportation as well as an increase of budget of MOF for the fiscal year 2015.

Greatly thanks to the centralization of the power around the President's Office, MOF succeeded in taking immediate and effective response to a tragic accident. Hwang Se-hyun points out that South Korea's ability to swiftly prepare a new institutional and policy framework in a problem-solving manner often creates a blind spot as it lacks a consideration on a much longer-term, comprehensive solution (Hwang 2015).

The loss of a South Korean fishing vessel in the High North in November 2014 supports Hwang's point (McCurry 2014). A 326-foot fishing vessel

carrying 60 crew, the 501 *Oryong*, which departed from Busan, sank in Russian waters in the Bering Sea. It was one of six South Korean fishing boats that were allowed to catch a total of 40,000 tons of pollock in 2014, based on a fisheries deal with Russia (Seok and Kim 2014). The Russian crews and the US Coast Guard were able to rescue only seven crew members despite joint rescue and recovery efforts. The newly founded Ministry of Public Safety and Security, MOF and MFA were in charge of various procedures, including reporting the accident, requesting rescue efforts and setting up a task force. The government's response to a marine peril only few months after the *Sewol* accident was heavily criticized as it lacked coordination and each ministry shifted responsibility to the other (Hwang 2015). Although unfortunately, the sinking of the fishing vessel exhibited the South Korean government's difficulties in coping with marine accidents in the far, extreme North region.

The MFA is in charge of representing South Korea's position on Arctic affairs overseas. Officials from MFA, Multilateral Economic Affairs Bureau, and Economic Cooperation Division represent South Korea at the AC. In addition, in June 2015, the MFA appointed an Arctic ambassador (Hwang 2015). Importantly, the MFA is also responsible for FTA, which have been signed with five of the eight Arctic state members (Canada, USA, Denmark, Finland, and Sweden through the EU) and an FTA with Russia is under review at the time of writing (Kim 2014b).

Group Interests

South Korea's external policy, particularly of an economic character, is influenced by the South Korean state's long-term partnership with domestic corporate power represented by the *chaebol* "big business" groups, such as Samsung, Hyundai, and Daewoo (Choe 2014). South Korea was especially active in developing the *chaebol*'s external reach, as well as their ability to better compete in the global market in the 1980s (Dent 2003). The state–chaebol relationship remains reasonably strong in Korea today, even after the Asian financial crisis in 1997–1998 and the subsequent decline of South Korea's outward foreign direct investment (FDI), as well as an attempt by the Kim Dae-jung administration (1998–2003) to dissolve the state–chaebol link. This understanding of the structural relations between the state and business and between the state and society can be seen in Korea's Arctic policy. The comment made by Cho Tae-yul, the Second Vice Minister of Foreign Affairs, in a ceremony

in July 2015 to commemorate the second anniversary as an Observer to the AC is indicative of this understanding (Hwang 2015):

> Meanwhile, Korea has Arctic activities mainly focused on scientific research and technology. Now, based on a clear recognition of the strategic value and economic potential of the Arctic, we must go to expand the breadth of economic activity and investment activities in the Arctic region.

As a maritime nation that holds several world-class ports and shipping companies, it is natural that the shipping industry of South Korea should investigate the economic aspect of the Arctic. Potential savings in time and money that the use of the NSR can bring are attractive for Korea, as it is heavily dependent on sea transportation of its exports and imports. Major Korean shipping companies, such as Hanjin Shipping, Hyundai Merchant Marine, and Hyundai Glovis have considered the test navigation of the NSR. As mentioned earlier, in 2013, Hyundai Glovis became the first Korean company to operate a test-navigation between Russia and Korea through the NSR; however, already in 2014, the company announced that it found difficulties in resuming the operation. Meanwhile, Korea Maritime Institute, which was launched as an independent research centre for shipping economics in 1984 and is under the auspices of the Office of Government Policy Coordination, conducts research projects on the feasibility of the NSR and holds annual seminars on the Arctic Ocean in cooperation with the East-West Center of Hawaii, the USA (Lee 2012, 94). Seen from this perspective, similar to Japan's shipping industry, Korean shipping industry eyes the mid- to long-term possibility of joining the development and the use of the NSR, while doing so at present is not economically viable.

South Korea's shipbuilding industry looks at the other potential opportunities that the Arctic Ocean offers. Shipbuilders such as Samsung Heavy Industries, Hyundai Heavy, and Daewoo Shipbuilding & Marine Engineering (DSME) are the world's top three manufacturers of ships (Worldyards Statistics 2016), and they have a capacity to construct special vessels suited for the Arctic environment, such as icebreakers, container ships with icebreaking capability, icebreaking tankers, and fuel ships transporting LNG. In March 2014, DSME obtained the world's first order for an icebreaking LNG carrier for the Yamal Project, a long-term project to develop natural gas mines in the Yamal Peninsula of Russia (The Korea Economic Daily 2015). In October 2014, Samsung Heavy Industries announced that it won an order worth 440 million

USD from Gazprom to build three arctic tankers (Korea International Trade Association 2016). The agreement was made amid Western sanctions against Russia after the annexation of Crimea from Ukraine. This indicates South Korea and its business utilized the country's special relationship with Russia in order to gain a competitive advantage in the fiercely competitive shipbuilding market.

The Busan Port, located in Busan, Korea's second largest city in the south-eastern part of the Korean Peninsula, is the largest port in the country. The Busan Port deals with cargos in the hinterland and transshipment cargo in nearby areas (Lee 2013c, 112) and ranks the world's number nine in terms of cargo volume in 2012 (World Shipping Council 2016). The South Korean government and the Busan Port view it as natural that the Port will play an important role as a logistics-oriented hub port when the NSR becomes commercialized. Increased usage of the NSR will shift the centre of logistics to Northeast Asia and Busan stands to benefit immensely due to its geographical location. The Ulsan Port, located approximately 50 kilometres northeast of the Busan Port, is also active in investigating the potential of the NSR. The Ulsan Port was opened as the first industrial port in Korea in 1962 and mainly handles liquid cargo due to the world's second largest oil refinery nearby owned by SK Energy. In January 2015, the Ulsan Port Authority held a workshop on logistics of the Arctic and the Russian Far East (Yonhap News Agency 2014). The Ulsan Port used to be South Korea's largest port until the end of 1990s, but Busan Port has taken a big lead since the government announced a plan to make Busan and Gwangyang the two primary container hub ports based on the "Two-Hub Strategy" of 1994 (Lee and Kim 2009, 247). The Korean government actively encourages competition between regional ports. It can also be argued that it is in President Park's interest to offer Arctic-related projects widely along the East Coast of the Korean Peninsula, thereby increasing the support for her Saenuri Party, which is less popular in the East Coast.[1]

South Korea does not produce oil on land or offshore. Korea relies heavily on imports for most minerals, such as iron ore. Therefore, diversifying the sources of oil import is considered crucial to its energy security. The South Korean energy sector is given a guarantee by the government to increase direct participation in the development and import of Arctic hydrocarbon resources. As mentioned earlier, the KOGAS pursued the development of the mining fields at West Cutback and Horn River in British Columbia, Canada, by sharing equal stakes with the Canada-based

Encana in 2010. In 2011, KOGAS acquired a 20% stake in the Umiak gas field in the Arctic (KOGAS Canada Ltd. 2012). At the time of writing, it is in the appraisal stage, with production planned for 2020. KOGAS reviews other possibilities in the Arctic, such as on- and offshore areas of Alaska, Yamal, and Greenland; however, projects in the Arctic are generally considered less attractive than onshore projects in non-extreme regions (Lee 2013b).

Among Asian Observers to the AC, Korea is the only one that has a unified ministry dealing with maritime affairs. As its name suggests, the Pan-Government Arctic Policy Master Plan is a collection of different projects from related ministries and does not clearly suggest a unified national strategy on the Arctic. Tools that South Korea uses towards the Arctic are either economic or political in character. Arctic scientific research, joining international or institutions on the Arctic and the promotion of the NSR can be considered as commercial diplomacy (trade and investment promotion). These tools are political in their character but for primarily economic goals. The conclusion of FTAs with five Arctic states can be considered as a political tool with a slightly more political than economic goal. Joining resource development projects in the Arctic is an economic tool but for primarily political goals. In the case of South Korea, those political goals are to ensure its economic security and to exercise its middle-power diplomacy in the international fora. Korea has had an ambition to promote its position as a deal broker and norm entrepreneur beyond the Korean Peninsula. South Korea regards international security, development, and environment as the areas to employ this approach, and the Arctic offers a perfect space for each issue.

Korea's Climate Change Policy

In the following section, I will pay attention to South Korea's climate change policy, as it is a salient example of Korea's approach to a global issue that demands skilful manoeuvring within the coordination of domestic politics and external policies.

Referring to the UNFCCC for my analysis of South Korea's climate change policy, it can be seen that although South Korea is a member state of the Organization for Economic Cooperation and Development (OECD), it does not belong to the list of 43 Annex I Parties to the Convention, which are the industrialized countries that were members of the OECD in 1992, plus countries with economies in transition (UNFCCC, 2016).

In fact, South Korea belongs to the list of Non-Annex I Parties to the Convention, which are mostly developing countries. As a result, South Korea is not required to have any commitment to reduce GHG emissions. However, South Korea regards itself as having an international duty to reduce GHG emissions on a mid- to long-term basis as an industrialized country in East Asia.

South Korea ratified the UNFCCC in 1993. In 1998, the Korean government established the Interagency Committee to Combat Climate Change in the Prime Minister's Office to develop the National Action Plan to Mitigate Climate Change and the Committee submitted the first national report of Korea to UNFCCC. In the following year, the government prepared the first governmental comprehensive plan in order to respond to the Convention. Since then, three comprehensive plans have been made with a three-year interval. Since the fourth plan released in 2008, the interval has become five years. South Korea's climate change policy is mainly to respond to the UNFCCC and does not include a mid- to long-term roadmap for GHG reductions or a vision beyond UNFCCC.

A characteristic of the South Korean administration is that its governance structure is based on the President's strong authority. Because of this, political decision-making is largely dependent on his or her leadership; therefore, when the administration changes it is not always guaranteed that the policy from the previous administration continues. For instance, the National Commission on Sustainable Development was formed during the Roh Moo-hyun administration (2003–2008) but the principles and policies of the Commission were not succeeded by the Lee Myung-bak administration (2008–2013).

Instead, in 2008, President Lee announced his new Low Carbon, Green Growth vision for South Korea's economic future to get its economy back on track and to respond to the global financial crisis. In 2009, the government introduced the National Strategy for Green Growth, which is a mid- to long-term plan until 2050. This was followed by the Five-Year Plan for Green Growth. The Five-Year Plan became the first five-year national economic development plan since 1996 and included a statement that South Korea would set its target reduction level of GHG emissions by 2009 and would gradually reduce starting from 2010.

A Framework Act on Low Carbon Green Growth was enacted as a legal basis to realize Green Growth paradigm. This was remarkable for Korea considering that several bills on climate change have been drafted since 1999 but have been either rejected or suspended due to strong opposition

from related ministries and businesses. The Act is a comprehensive law that integrates energy policies, promotion of the Green Growth policy and sustainable development on top of combatting climate change. Yoon et al point out that by setting the mid- to long-term reduction target, South Korea had an ambition to be an "early mover" among Non-Annex I Parties and to display South Korea's "global leadership" (Yun et al. 2012). This was based on a judgement that by exhibiting voluntary reduction efforts to the outside world, Korea would be able to play an intermediary role between developed and developing countries and thereby contribute to a conclusion of international negotiations. Korea's negotiation position would also be improved (Yun et al. 2012). Moreover, Korea's belief was based on its own "rags-to-riches" narrative on the country's development. In the early 1960s, when the South Korean government started industrialization policies, it had little concern for environmental protection in order to escape from absolute poverty; but with determination and efforts, even a poverty-stricken, war-torn country like Korea was able to achieve economic success.

Since the introduction of this paradigm, South Korea has played an active role in promoting the concept more broadly to the international community, including through the OECD. In June 2009 at the OECD Ministerial Council Meeting, 30 member states and five prospective members approved a declaration acknowledging that "green" and growth can coexist, and asked the OECD to develop a green growth strategy bringing together economic, environmental, technological, financial, and development aspects into a comprehensive framework (United Nations Sustainable Development Knowledge Platform 2015). In this manner, South Korea managed to convince OECD to be the largest proponent of the Green Growth paradigm.

All of which indicates that the South Korea's strength of its external policy is that, partly due to the strong leadership of the President's office, it can change its course rather swiftly according to what is perceived as the right direction. After the global financial crisis in 2008, the President's office regarded it as crucial to revive the country's economy by going "green." South Korea's climate change policy is a segment of Korea's long-term strategy to sustain or increase its economic security based on the Green Growth paradigm. Externally, this is achieved by exercising middle-power diplomacy. We see these characteristics are also present in South Korea's Arctic policy. Because of South Korea's ability to swiftly adapt to changing internal and external environments, newly established

or adjusted policies and institutions can lack a holistic view on the matter to be tackled, as the example of the maritime safety policy shows. In this regard, the future of Korea's Arctic policy is very much dependent on the future Presidents of South Korea and their individual level of commitment to the Arctic region and related international agreements.

Note

1. Author's conversations with Yoon Sukjoon, Korea Institute of Maritime Strategy, February 2015.

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CHAPTER 5

Singapore's Arctic Policy

Abstract Singapore regards itself as vulnerable to the external environment due to its size, geography, and ethnic diversity. Singapore perceives developments in the Arctic, particularly the emergence of the new sea route, could potentially threaten Singapore's position as a maritime node and make Singapore a global irrelevance as with other historic maritime powers, such as Venice. Because Singapore is a developmental state where the legitimacy of the leadership and the bureaucratic management of the economy are intricately entwined with economic prosperity, challenges to the economy are perceived as national security challenges. To manage this vulnerability and counter-potential economic and security challenges, Singapore takes a proactive stance of utilizing international or multilateral organizations of Arctic governance and seeks to exert influence beyond its size.

Keywords Singapore • Maritime node • Arctic governance • Non-Arctic Observers • Economic security

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Singapore, officially the Republic of Singapore, is an island city-state with over 4.7 million people, lying at the southern tip of the Malay Peninsula, just over 100 kilometres north of the Equator. Based on this profile, Singapore may not immediately strike one as having any significant interest in the Arctic region. In fact, Singapore has little history of engagement in the Polar regions to infer a general policy direction. However, there are ongoing discussions in academic and policy circles in Singapore as to how the impacts of climatic changes in the Arctic will affect Singapore in the future. Singapore has articulated an intention to play a role in Arctic governance, through government statements (Hean 2012), its submission, and eventual acceptance as Observer at the AC, and the creation of an Arctic Envoy role, raising the question of what is motivating these various activities.

In December 2011, Singapore submitted a request to the AC to be considered for (permanent) Observer status. In January 2012, the Singapore Ministry of Foreign Affairs (MFA) appointed a Special Envoy for Arctic Affairs, Ambassador Kemal Siddique (Singapore Ministry of Foreign Affairs 2012). This position lies within the MFA, heading up a Working Group that includes officials with area responsibility in Europe and Southeast Asia.

Before Singapore was admitted to be Observer at the AC in the Senior Arctic Officials (SAO) Meeting in Kiruna, Sweden, Singapore was already viewed as having diligently embraced the application criteria set out in the May 2011 Senior Arctic Officials (SAO) report. The Singaporean government, for its part, was encouraged by the response to their application and acknowledgement of their interest in the Arctic. Singapore officials attended meetings in Sweden during the Swedish AC chairmanship (albeit in the margins), joined a High North Study Tour to Svalbard organized by the Norwegian government in August 2012, and participated in the tenth Conference of Parliamentarians of the Arctic Region in September 2012. A number of representatives of the AC's Permanent Participants visited Singapore at the government's invitation in May 2012. Some AC Member States acknowledged Singapore's maritime heritage as a legitimate factor in its application for Observer status, while Singapore's Arctic Envoy also reasoned that the IMO competence was an area of expertise Singapore could share with the AC. Singapore was granted Observer status in May 2013.

Singapore seeks an Arctic role, and that this engagement stems from Singapore's significant interest in global maritime affairs and the strong role of the state in managing the Singaporean economy and its strategic industries of port management and vessel construction.

External Environment

Singapore became independent in 1965, and the philosophies of the founding fathers remain strong in the country. According to S. Rajaratnam, who served as Singapore's first foreign minister (1965–1980), Singapore's foreign policy has three priorities: the need for survival, the balance of power, and the globalization paradigm (Dekster and Osman 2006, 6). As realists, Singapore's leaders believe in a Hobbesian world where power matters and predators prowl looking for opportunities (Dekster and Osman 2006, 4). Singapore regards itself as vulnerable to the external environment due to its size, geography (particularly caught between its two big neighbours, Malaysia and Indonesia), and its ethnic diversity. To manage this vulnerability, Singapore attempts to be extraordinary in the way in which its achievements are projected and perceived beyond its region (Leifer 2000, 162). Therefore, for Singapore, the external environment for its Arctic policy comes as the most influential factor.

Based on this notion, international or multilateral organizations like the UN are crucial for the survival of small states like Singapore. Through the UN system, small nations get formal equality, potential security of membership, and the ability to exert influence beyond their size. Singapore has played an important role in the global governance regimes and institutions for ocean management and transportation, positioning itself as a unique island state and a major shipping hub.[1] Singapore is a longstanding member of the IMO and was re-elected to the IMO Council for the 11th consecutive term in November 2013 (Sim 2013). Singapore has played a role at the IMO that is disproportionate to the size of the country (International Maritime Organization [IMO] 2005). Singapore has participated actively in the development of the Polar Code as well (Prime Minister's Office Singapore 2015). Singaporean officials have also articulated views on UNCLOS that indicate official thinking on relevant issues. They have stated that freedom of navigation represents an issue of "vital interest," that the high seas are the common heritage of mankind, and that there must be improved cooperation between littoral and user states. For Singapore, "discussions on ocean governance must be open, inclusive and involve all interested stakeholders" (Hean 2012).

Based on its track record of being able to "punch above its weight" in multilateral organizations, Singapore also sees that engaging in such organizations is what it does well. One salient example of such precedence is

the Association of Southeast Asian Nations (ASEAN). ASEAN is a political and economic organization of Southeast Asian countries formed in August 1967 by Indonesia, Malaysia, the Philippines, Singapore, and Thailand. ASEAN was established largely as a response to the difficult relationship of two of the founding members, Indonesia and Malaysia, during that period, and Singapore played a crucial role (Kivimaki 2014, 136). In addition, what is described as the ASEAN Way, which is characterized by developmentalism, non-interference, and face-saving, greatly contributed to the creation of a peaceful East Asia (Kivimaki 2014, 7). Singapore understands that the island-state is merely a spectator to the changing patterns of power in the Asia-Pacific (Leifer 2000, 160). This inspires the second priority of Singapore's foreign policy: the balance of power. For Singapore to be less vulnerable to the influence of more powerful neighbours, Singaporean leaders believe it is essential to have the presence of more than one external power in the region, and these powers should be balanced so that they hold each other in check (Dekster and Osman 2006, 7). Singapore's military connection to the USA via the Five Power Defence Arrangements (signed in 1971) is indicative of this logic. Acknowledging this line of thinking, it is conceivable that Singapore views the necessity to be part of, or at least to be a keen observer of, the AC, as it is the most important governance body of the northern maritime frontier and where great powers such as USA, Russia, and China gather.

Domestic Environment

As described above, for Singapore its external environment determines its domestic environment, rather than the other way around. To adapt to the changing external environment, Singapore's adaptation strategies have been to become a "Global City." It was deemed important that Singapore move beyond being a regional entrepôt and to become a key node in a globalized environment (Dekster and Osman 2006, 6). One aspect of Singapore as a Global City is its role as a global shipping hub. In this regard, Singapore projects itself as today's Venice. In 1988, in his farewell speech after resigning from the Singapore Armed Forces in order to run for Parliament, George Yeo compared the rise of Venice and Singapore. Singapore is keenly aware of the manner in which Venice experienced its decline, one major reason being the emergence of an alternative trade route to the East through the Atlantic around Africa (Hui 2013). In this

regard, the NSR was seen as the possible emergence of the new sea route that might threaten Singapore's position as Asia's entrepôt. Singapore needs to guard against following the footsteps of Venice and must avoid the risk of "global irrelevance" by understanding the navigation, energy, and environmental dynamics in today's Arctic development (Chen 2015).

Major ministries and actors concerned with the Arctic affairs in Singapore are MFA, Shipping and Port Sector, and Offshore and Marine Engineering (OME) Sector.

National Interests

Aspects of Singapore's interest in Arctic affairs can also be understood by acknowledging Singapore's history as a developmental state ruled by a single party, the People's Action Party (PAP), since 1959.[2] Singapore is characterized as a developmental state (Low 2001), whereby the legitimacy of the state derives from economic growth, and the state involves itself in the education of the labour force and adaptation of the national economy to changes in the global economy (Airriess 2001, 240). This developmental statism can be observed in the significant degree of involvement of state institutions and government officials of the ruling PAP in the management of the Singaporean economy and its major commercial entities (Liow 2012); the creation of large-scale initiatives such as competence clusters and hubs across government, academia, and industry and the adoption of a long-term strategic approach to foreign economic policy; and the identification of challenges to Singapore's economic wellbeing as representing national security threats (Dent 2001).

The Singapore government's direct intervention in the management and direction of the economy and strategic enterprises and sectors means that wider economic initiatives and concerns drive Arctic engagement. Singapore is particularly concerned by the long-term challenge to Singapore's hub port status that future trans-Arctic shipping may represent, and the commercial potential for the strategically important offshore and marine sector. Contrary to other energy-hungry East Asian AC Observer states, Singapore has no interest, nor does it have the resources or capability, in natural resource exploration and development. However, Singapore is more than willing to offer its technical knowledge to develop tools for the Arctic, such as port management, and OME (Ministry of Foreign Affairs Singapore 2013).

Group Interests

Ministry of Foreign Affairs

International legal institutions such as UNCLOS and IMO offer additional instruments outside of the conventional tools of the balance of power in order to serve the country's core interest of protecting its sovereignty. Singapore played a key role in the negotiations for the UN Law of the Sea Convention (Dekster and Osman 2006, 12). The Ministry of Foreign Affairs is mainly in charge of dealings with these organizations.

The Ministry appointed a Special Envoy for Arctic Affairs, and this post is served concurrently as the Non-Resident Ambassador to other nations. Non-Resident Ambassadors of Singapore are often assigned from the business community, and it is crucial that they bring in their practical understanding of economic issues in their ambassadorial work (Sadasivan 2007).

As a small city-state that lacked natural resources, there is a shared narrative that Singapore has always regarded essential to invest in human capital as a source of economic development ever since its independence in 1965 (Ministry of Foreign Affairs Singapore 2013). Reflecting this understanding, technical assistance in human resource development and economic development is placed at the core of its official development assistance, which started with the establishment of the Singapore Cooperation Programme (SCP) in 1992 (Koshino 2014). The SCP falls under the Technical Cooperation Directorate of the Ministry of Foreign Affairs.

For example, Singapore initiated a Journalist Visit Singapore Programme for countries of Latin America under the Forum for East Asia-Latin America Cooperation, which is a region-to-region forum initiated by then-Prime Minister of Singapore, Goh Chok Tong, in 1998. Through the Programme, journalists from Latin America visit Singapore with an aim to better understand the developments in the region around Singapore (Sadasivan 2007).

In a similar vein, Singapore organized a study visit for Arctic indigenous communities to Singapore in June 2012 (Ministry of Foreign Affairs Singapore 2013) and were shown "the Singapore Story," keys of success, including urban planning, port management, and water recycling. Under the auspices of the SCP, the second study tour was held in November 2014, inviting senior representatives of the Permanent Participants of the AC (Ministry of Foreign Affairs Singapore 2014).

While inter-regionalism such as ASEAN and East Asia-Latin America Cooperation is one backbone of Singapore's endorsement of open global economy, Singapore has also actively pursued bilateral trade agreements. The Ministry of Trade and Industry is mainly in charge of FTAs. The list of countries that Singapore has signed FTAs with is long, but among Arctic states, Singapore has FTAs with the USA (USSFTA), as well as Iceland and Norway via European Free Trade Association (EFTA)–Singapore FTA (ESFTA). The EFTA is a free trade area consisting of Switzerland, Iceland, Liechtenstein, and Norway. Negations are ongoing for the Canada–Singapore FTA. In addition, Singapore has bilateral FTAs with China, India, Japan, and South Korea (International Enterprise Singapore 2015).

Shipping and Port Sector

Some analysts assert that more northerly Asian ports could benefit from a reliable Arctic passage, at the expense of Singapore (Ramberg 2010; Ho 2011). As a large proportion of ships transiting the Malacca Straits currently are either Chinese or carrying cargo to China, this would impact Singapore. It is also argued that projected energy resources in the Arctic and the transit potential may shift energy import patterns in the energy-hungry economies of Northeast Asia, namely China, Japan, and Korea. The Malacca Straits are an acknowledged strategic chokepoint (US Energy Information Administration 2011), and with the problem of piracy and political instability in the Middle East potentially impacting the Strait of Hormuz, the case for alternative energy supply routes through the Arctic would seem compelling.

In opposition, others challenge the extent of the threat to Singapore's hub port status. Questions remain about the near-term potential of large-scale, highly regularized Arctic shipping, related to navigational safety, transit time, capacity restrictions, limited seasonal access, as well as an uncertain Russian bureaucracy and lack of existing infrastructure (Lasserre and Pelletier 2011). On the displacement of Singapore as an international hub, there are "few grounds for concern," and the NSR is likely to have a "marginal effect on global shipping movements" (Graham 2012).

Furthermore, the role of Chinese ports and Singapore is complementary (Tongzon 2011), and the rise of Chinese ports, due to Arctic shipping or otherwise, need not impact the Port of Singapore negatively. Indeed, there may well be an upside to a fully operational NSR: the

state-owned[3] Port of Singapore Authority (PSA) has internationalized its footprint, particularly in the last decade,[4] and Singapore's broad expertise in the running of major port facilities may be an opportunity for PSA International as new northern port infrastructure is required to facilitate Arctic shipping.

Moreover, China, Japan, and South Korea, the largest economies of East Asia, remain highly dependent on energy source from the Middle East. Singapore has invested in the traditional shipping routes via Malacca Straits between energy-guzzling East Asia and oil-rich Middle East, and it expects this high dependency will not decrease dramatically any time soon.

Nevertheless, a potential future in which Singapore's status as a maritime node is threatened presents a challenge to Singapore's economic wellbeing. For a developmental state where the legitimacy of the PAP leadership and the bureaucratic management of the economy are intertwined with economic success and effective planning, major challenges to the economy are perceived as national security challenges (Dent 2001). Therefore, on the one hand, the challenge of the NSR to Singapore may prove to be overblown, but integrating Singapore into the Arctic governance system represents a means of hedging risk while understanding and influencing Arctic change. In doing so, Singapore takes a proactive approach by joining global governance institutions so that it can help shape positive outcomes in areas that affect the city-state's core interests (Storey 2014).

Offshore and Marine Engineering Sector

Singapore is home to global leaders in OME, a critical sector for Singapore's economic strategy. In 2007, the Chairman of the Maritime and Port Authority of Singapore (MPA) made an explicit connection between developments in the Arctic and Singapore's OME sector said:

> the offshore and marine engineering sector must look beyond its current capabilities and products to stay relevant and remain at the top. It is thus essential to invest in R&D, especially in areas that can overcome future challenges faced by the global offshore oil and gas industry. Some of these technological challenges include the extraction of oil and gas from marginal fields and the development of oil and gas fields in deeper waters and in the arctic regions where climactic conditions are extreme. (Ong 2007)

Singapore's developmental statism helps explain the link between Singapore's OME sector, the Arctic, and the actions of the Singapore government. The importance of Singapore's Maritime Cluster (SMC) and Singapore's strategic ambition to establish itself as a "global maritime knowledge hub" by 2025 (Maritime and Port Authority of Singapore 2009) indicate that Singapore's wider state initiatives have a bearing on Singapore's Arctic engagement.

The SMC comprises more than 5000 maritime establishments (Khong 2012) and has strong linkages to the rest of Singapore's economy, with a total direct and indirect value-added contribution of around 9% of GDP (Wong et al. 2009). Significant effort is being expended to transform this maritime cluster into an international leader, adopting a top-down, coordinated multi-agency approach to developing the cluster (Wong et al. 2009, 111). The MPA has overall responsibility for the development of the international maritime cluster, and official institutions have been proactive in investing in core infrastructure and moving vulnerable industries, for example, ship repair, into more modern niche markets.

The OME sector is central to the SMC and the development of the maritime knowledge hub. It accounts for 20% of total value added in the SMC and 25% of total maritime employment in Singapore (Wong et al. 2009, 88). Singapore's OME sector accounts for 70% of the world's jack-up rig-building market[5] and two-third of the global Floating Production Storage and Offloading units (Singapore Economic Development Board 2015), both crucial technologies for offshore drilling in hostile environments.

Singapore's Keppel Offshore and Marine and Sembcorp Marine dominate these markets (Wong et al. 2009, 96) and have close ties with state institutions.[6] Keppel Offshore and Marine entered the Arctic icebreaker market in 2008, delivering two vessels to Russia's LUKOIL that are currently operating in the Barents Sea (Keppel Offshore & Marine 2012b). In February 2012, Keppel and ConocoPhillips announced their intention to jointly design a pioneering jack-up rig for offshore Arctic drilling, with project completion expected by the end of 2013 (Keppel Offshore & Marine 2012a). The success of Keppel OM and Sembcorp in particular has fuelled growth in related industries, such as supply vessels, logistics, IT repair, and support (Wong et al. 2009, 98).

In the development of the maritime knowledge hub, there is a close state–industry–academia cooperation, as is typical of the developmental state (Airriess 2001). The Singapore government has sought to grow Arctic expertise to complement its existing industrial expertise. It has

instituted a number of R&D initiatives involving the MPA, the National University of Singapore (NUS), and the private sector. Most notable are Arctic research projects at the Centre for Offshore Research and Engineering (CORE) at NUS (Elias 2008). CORE was established in 2004 "to strengthen Singapore's performance as an oil and gas hub in the wake of high growth forecasts for the industry globally" (Wong et al. 2009). The Keppel Corporation is a founding member of CORE.

Singapore has not, to date, articulated a public strategy on the Arctic. Singapore's Arctic interest likely represents the logical extension of its more general interest in important developments in international maritime policy, including the importance it places on UNCLOS, the IMO, and regional maritime cooperation. However, Singapore, at the state and institutional levels, has important strategic economic interests related to the opening up of the Arctic for shipping and resource extraction. Singapore's competence in the management of complex port infrastructure and the fostering of global leaders in the OME industry represent important new niches for two industries that are critical to the Singapore economy and closely linked to the Singapore government.[7]

Singapore's application and acceptance to gain Observer status at the AC and the appointment of an Arctic envoy in early 2012 indicate that Singapore has Arctic ambitions. Singapore is viewed as expending significant diplomatic effort to obtain a consensus on its AC status.

Singapore's Arctic policy is in its early stages of definition. It is not yet clear whether efforts to contribute to Arctic governance represent a long-term foreign policy commitment or if Singapore's Arctic diplomacy is driven primarily by an ambition to exploit an emerging market in which it sees itself as a technological and expertise leader. Indeed, Singapore's Arctic policy is limited in its tools of economic diplomacy. Among the Arctic states, Singapore has FTAs with the USA, Iceland, and Norway. Negations are ongoing for the Canada–Singapore FTA. In addition, Singapore has bilateral FTAs with China, India, Japan, and South Korea.

FTAs can be considered as a tool of trade diplomacy, which is a political tool with primarily economic goals. Joining the AC, the IMO, or UNCLOS is a tool of commercial diplomacy (trade and investment promotion), which is political but the primary goal is economic. Seen from this perspective, the analysis also confirms Singapore's Arctic policy remains within the realm of securing Singaporean industries' commercial interest.

Notes

1. Singapore is currently the world's second largest container port and was only overtaken as the world's leading port by Shanghai in the past few years.
2. Singapore was granted full internal self-government by the British in 1959. Singapore became fully independent in 1965.
3. PSA International is 100 % owned by Temasek Holdings (PSA International 2013).
   Temasek Holdings is wholly owned by the Singapore Minister of Finance (Temasek 2015).
4. PSA International manages a number of terminals in the ports where trans-Arctic shipments are predicted to arrive in Northeast Asia, including a total of 29 berths across Dalian, Tianjin, Busan and Incheon, with a total capacity of 14,350 kTEU (PSA International 2015) that is far beyond predictions for volumes of trans-Arctic shipment through to mid-century (Peters et al. 2011).
5. A jack-up rig is a "self-contained combination drilling rig and floating barge, fitted with long support legs that can be raised or lowered independently of each other." (Schlumberger Limited 2016).
6. Temasek Holdings, whose sole shareholder is the Singapore Minister of Finance, owns 20.43 % of Keppel Corporation as of November 2015 (Keppel Corporation 2016) and 49.5 % of Sembcorp Marine (The Straits Times 2016).
7. Singapore hosted the Arctic Circle Forum, a smaller forum of the annual Arctic Circle Assembly in November 2015. The forum focused on shipping, infrastructure financing and ocean science and research (The Arctic Circle 2015).

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CHAPTER 6

India's Arctic Policy

Abstract India tends to look at its Arctic engagement through an Antarctic lens, preferring to treat the Arctic as a global commons subject to an international legal regime similar to the Antarctic Treaty. India's foreign policy towards the Arctic is backed by a pragmatic awareness of an intra-Asia competition against China, a sense of victimization under colonialism and a deep desire to gain and regain status especially regarding territories. Some refer to the need to relate the Arctic to the Himalayas, the "third pole" of the world, but this idea appears to remain conceptual. It remains to be seen whether India's actions will match its rhetoric in the Arctic.

Keywords India • Non-Arctic Observers • The third pole • The Antarctic

When India applied for (permanent) Observer status to the Arctic Council at the end of 2012, only few months before the Kiruna Meeting in May 2013, it took many of the Arctic observers by surprise. Although India is one of the 14 original High Contracting Parties of the Spitsbergen Treaty of 1920, it was at the time of British India and India's interest in the Arctic was not explicitly shown until recently; in fact, only five years before its application to the Arctic Council. India started its Arctic endeavours in 2007. In July 2008, India established its first Arctic research station

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Himadri in Ny Alesund, Svalbard. The then-Union Minister of Science and Technology and Earth Sciences Kapil Sibal inaugurated the opening. This was against the backdrop of 27 years of Indian Antarctic research, which started in 1981 with the establishment of the National Centre for Antarctic & Ocean Research (NCAOR), which is under the auspices of the Ministry of Earth Sciences.

At the research station in Ny Alesund, Indian scientists conduct research on atmospheric science studies, cryosphere and climate, biogeochemistry focusing on climate change and polar environment and ecology (National Centre for Antarctic and Ocean Research 2016a). In June 2010, a high-level delegation led by Prithviraj Chavan, the then-Minister of Earth Sciences, visited Svalbard to review scientific activities by the Indian scientists from Himadri (Chaturvedi 2013). Starting from 2007, India had sent at least two to four expeditions to the Arctic annually (National Centre for Antarctic and Ocean Research 2016b). In April 2012, India joined the International Arctic Science Council. There is a plan to build an icebreaker for research purposes.

Analysts of Indian Arctic policy give different reasoning as to why India may have any interest in the Arctic. Indians themselves do not feel they are alien to the Arctic thanks to a popular belief that the Aryans originated in the Arctic region. This idea came from a book *The Arctic Home in the Vedas* written by an Indian scholar Lokamanya Tilak in 1903 (Sinha 2015). According to S. Rajan, a former director of NCAOR, it is climate change that is driving India forward in the Arctic (Rajan 2015): "If you don't understand the climate, you cannot know what to do about it, or take humanity forward." Indian observers of Arctic geopolitics claim physical–ecological transformations in the Arctic caused by climate change could lead to unimaginable geo-economics and geopolitical transformations with regional and global implications (Chaturvedi 2014). Indeed, the Ministry of External Affairs says India's interests in the Arctic region today are characterized as "scientific, environmental, and commercial as well as strategic" (Ministry of External Affairs Government of India 2013).

Chaturvedi points out that while India's scientific interests in the Arctic are often emphasized with India's genuine concern about climate change as a legitimate reason to have any interest in the region, India's "strategic" interests remain unclear (Chaturvedi 2014, 75). This can be explained by India's foreign policy today, which is characterized by extraordinary pragmatism as well as deep ideological commitments (Jain 2008, 20; Chaturvedi 2013) but lacking strategic vision. This lack of strategic vision

in India's foreign policy is already present during the time of Jawaharlal Nehru, the first prime minister of India (Jain 2008, 21) and the old habit seems to remain present. Miller (2013) explained India's lack of strategic vision in foreign policy-making is attributed to the fact that New Delhi's foreign policy decisions are often highly individualistic. Although foreign policy decisions are entrusted with the prime minister's office, the National Security Council and the Ministry of External Affairs, Indian Foreign Service officers fill all three offices and their top positions. Indian Foreign officers are given high level of autonomy and allowed to make individualistic decisions, which result in bottom-up foreign policy that lack a long-term view and strategic vision.

Around the time of India's application, there was a reasonably heated debate about India in the Arctic by a small number of Indian scholars and analysts (Chaturvedi 2014). These included concerns about the possible role India could play in the Arctic against increasing engagement of other Asian countries, particularly China, which India has a long-term rivalry with, or a preference for treating the Arctic as a "common heritage of mankind," in other words as a global commons that are subject to an international legal regime similar to the Antarctic Treaty (Lackenbauer 2013). Indeed, India very much looks at its polar engagement through Antarctic lens, as the name of its national polar institute suggests: National Centre for Antarctic and Ocean Research. Not only India's polar research began from Antarctica, it was deeply engaged in the "Antarctica Question" during the Cold War. India took the position to internationalize governance on the southern continent and attempted to bring the question repeatedly, starting from the UN General Assembly in February 1956. This was just after the Jawaharlal Nehru's presentation of the Non-Alignment Movement at the Banding Conference in 1955, which aims were to promote Afro-Asian economic and cultural cooperation and to resist colonialism or neocolonialism by any nation. India's idea of non-alignment (neutrality) was that peace could be preserved only by peaceful means, that the armaments race endangers its preservation (Pandit 1956). In this way, it can be said that India's foreign policy towards the Arctic is backed by a pragmatic awareness of an intra-Asia competition against China and a sense of victimization under colonialism and a deep desire to gain and regain status especially regarding territories (Miller 2013). Nevertheless, the decision to apply to be a (permanent) Observer to the AC appears to be made at the spur of the moment without any long-term strategy. As Ashok Kumar Attri, the then Indian Ambassador to Denmark said: "(At

the time of the application) there was a pretty robust debate within India, ultimately we decided to in the nick of time submit an application" (Attri 2015).

Two years have passed since India became an Observer to the AC, however it is fair to say India's Arctic policy has not shown any significant signs of advancement. India acknowledges that more international cooperation regarding the Arctic is needed (there is none at the time of writing) and India needs to be much more proactive (Sinha 2015). However, India is rarely seen at the working groups of the AC, where some of the other new Observers are present. Some Indian scholars refer to the need to relate the Arctic to the Himalayas, which is considered to be the "third pole" of the world as the region that stretch over India and other countries stores more snow and ice than anywhere else in the world outside the Polar regions (ICIMOD 2016), but this idea appears to remain conceptual. It remains to be seen whether India will walk the talk in the Arctic in the near future.

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CHAPTER 7

Conclusions

Abstract Asian states' Arctic policies incorporate various tools of economic diplomacy. They use more of political tools to achieve primarily economic goals, rather than economic tools to achieve primarily political goals. Of the five Asian states, China, Japan, and South Korea are more actively engaged in the Arctic using similar approaches in order to secure long-term economic goals. These findings confirm that, for the time being, Asian states regard the economic aspect of the Arctic as far more important than the political aspect. As countries that pursue state-led development, achieving economic security, the economic prosperity, and political stability of a nation remain their primary motivation. Nonetheless, there remain questions around China's ultimate objective in the Arctic.

Keywords Economic diplomacy • The Arctic • East Asia • State-led development

In this book, I have addressed the questions "what role does Arctic policy have for Asian states?" and "where do Asian states' Arctic policies lie in their overall foreign policy?" I have sought to tackle these questions by paying attention to the current status of the Arctic engagement of five Asian countries (namely, China, Japan, South Korea, Singapore, and India) and the extent to which their external and domestic environments

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affect their Arctic policy. I then presented an explanation of each country's interests at the national, bureaucratic, and group levels in order to highlight institutions and actors that play a significant role in each country's foreign policy-making towards the Arctic. In this final chapter, I try to merge the answers provided by the history of a changing Arctic environment and its governance, as well as the five case studies. This will be followed by several policy implications of my conclusions and an examination of the possible future direction of Asia in the Arctic.

Asia in the Changing Arctic

The Arctic Ocean and the Arctic Region, after it was "discovered" by the first explorers in the start of the twentieth century, remained a strategically important but geographically remote periphery with minimal human and economic activities. What shifted this conventional view of the Arctic as a pristine white Northern hinterland was the end of the Cold War, which led to lower tensions in the militarized Arctic, and the impact (and subsequent awareness) of global warming and climate change. The Arctic ice was—and still is—melting at an unprecedented rate and projected to result in several forms of potential environmental changes and problems.

Despite this alarming prognosis, some nonetheless began to view this new Arctic as a place of opportunities. With longer ice-free periods, experts and shipping companies around the globe renewed their interest in developing the Arctic sea routes, such as the NSR, which runs from the Kara Gate to the Bering Strait connecting Europe and Asia across the High North, and the Northeast Passage 3000 miles across at the top of Eurasia connecting the Atlantic to the Pacific. A groundbreaking report by the USGS released in 2008 posited that nearly one-quarter of the earth's undiscovered recoverable petroleum resources remained untouched in the Arctic Region. At the start of the new Millennium, it appeared that humans were dreaming of a new gold rush—an Arctic gold rush.

Rapid changes in the Arctic environment resulted in highlighting the challenges of existing governance framework of the Region, particularly on three key areas: management and use of natural resources, shipping, and environmental protection. Unlike Antarctica, the Arctic is not governed by a comprehensive regional treaty-based regime similar to the Antarctic Treaty, but rather covered by a multi-layered legal and institutional framework. To name a few, the so-called Spitsbergen Treaty recognizes the sovereignty of Norway over the Arctic archipelago of Svalbard while giving

the signatories equal rights to engage in commercial activities such as coal mining on the islands and to provide a ground for non-Arctic states to build research stations on the island in Svalbard. The 1982 UNCLOS provides the legal framework to control activities on, over, and beneath the Arctic Ocean. The IMO is responsible for regulating international shipping, including the Polar Waters. In practical terms, the AC, a reasonably young intergovernmental forum founded in 1996 for cooperation in and about the Arctic Region, became the leading organ to discuss matters related to the Arctic.

Calls for significant adjustments to the existing Arctic governance system became even more prominent as economic (and some security-related) interest in the Arctic grew among the geographically distant Asian states. Asian states regarded the AC the most relevant forum for non-Arctic states alike and submitted their applications for Observer status, starting from China in 2006, South Korea in 2008, Japan in 2009, Singapore in early 2012, and India in late 2012. These applications were one of the first indications that the mostly Western Arctic states might have to accommodate the interests of the "outsiders" in what they considered as their "backyard," the Arctic.

Caught off guard, numerous news articles and editorials appeared before the AC's meeting in Kiruna in 2013, where the applications to Observer status were fiercely discussed. These articles hinted that "the Chinese are coming" to the Arctic to exploit and possibly destroy the rich natural resources in the region. The debate became so heated that some experts felt the need to caution over the tone of the debate. Nonetheless, seen from the Arctic states' point of view, the role of Asian states in the Arctic is found at opposing sides of the spectrum. One end of the spectrum is based on the realist notion, and sometimes combined with the fear of a "rising Asia." For observers of this notion, Asian interest and investment in the Arctic region, especially if they come from China, suggest a future of competitions over resource extraction and military presence in otherwise peaceful Arctic, as China gains more influence with its growing economic and military power. The other end of the spectrum is based on the liberal position with a more internationalist approach. According to observers of this notion, having Asian states on board in the Arctic will not be harmful to the Arctic states and its peoples, provided the interests of Asian states are managed.

Although there is not a large volume of published studies describing Asian countries' interest in the Arctic (and the majority of them focus on China), their scholarly assessments are slightly more nuanced but the

overall diversion of debate is similar. Some researchers evaluated that, although China's Arctic policies are still in a nascent stage of formulation, China's ultimate goal in the Arctic is unknown as China's Arctic strategy is part of its maritime strategy, which in turn is part of the country's grand strategy. Others advocate Asian states' interest in the Arctic is genuine and the countries in the Arctic region should embrace them in order to detect common interests and identify future "win–win" opportunities. Indeed, whichever notion one takes, there appears to be a consensus among researchers that Asian countries are mostly interested in the economic aspect of the changing Arctic, be it vast deposits of mineral sources, fossil sources, or the opening of the new sea routes. Sure, they may be interested in climate change as well, but that is little more than window dressing. This assessment is with an underlying assumption that Asian states take a Machiavellian approach in their international relations, favouring expediency over morality. The relation of Asian states and the Arctic is much more complex and dynamic, influenced by the changing landscapes of both domestic and global politics and economy. Each of this book's country case studies showed Asian states' outwardly economic interest in the Arctic is grounded on their unique perspective on national security and the role of economic development in securing their national interests.

Theoretically, I referred to the concept of economic diplomacy. In this book, economic diplomacy is defined as the pursuit of economic security within an anarchic system and what is salient of the idea of economic security for Asian states in question is that, for them, economic security consists of not only economic prosperity but also political stability of a nation. This is because that the Asian states discussed in this book pursuit, to a greater or lesser extent, state-led development, in which it is the state that is mainly responsible for leading economic development of a nation. Moreover, I began each chapter on country case studies with a brief history of each country's Arctic engagement followed by the external and domestic environments as well as three levels of the country's interest in the Arctic: national, bureaucratic, and group.

Findings from Country Case Studies

China's engagement in the Arctic Region became more apparent in the late 2000s but it is certainly mistaken to regard China as having been absent from the Arctic prior to that. For China, the post-Cold War international

environment opened the door to the world, including the Arctic. Rigorous economic reforms in the beginning of the 1990s led to China's rapid economic growth in the latter part of the decade, resulting in a China more confident to demand a place among the major powers and extend its reach to regions beyond its immediate neighbourhood. In 1999, China dispatched its first official Arctic expedition and in 2002, then-President Jiang Zemin made the first state visit to Iceland. It can be argued that the Chinese government's emerging Arctic during this period was not entirely expected, having previously paid more attention to the Antarctic.

Following the financial crisis in 2008 and having managed to escape it reasonably undamaged, China strengthened its ties to the Arctic states, sometimes using a special relationship with Iceland as a catalyst to navigate through the theatre of Arctic politics, which in turn has gradually become more crowded and more diplomatically unpredictable. The Chinese government has increased investment in Arctic research and commissioned a second Arctic icebreaker. Large-scale investment deals in oil and gas were concluded at bilateral meetings with Russia. COSCO completed the first return trip with a merchant vessel using the NSR, to name a few examples of China's Arctic activities.

What marks China's Arctic engagement is its dualism: the mix of economic and strategic purposes. In terms of the use of natural resources and shipping, two of the three key areas of Arctic governance, China has been one of the most active states among Arctic and non-Arctic states alike by making various types of business agreements. Although there remains a degree of concern about the manner in which Chinese business activities are (or may be) conducted, large-scale investment projects in the Arctic region has been generally speaking welcomed by all concerned, preparing the ground for a truly "win–win" situation, as Chinese Arctic stakeholders contend. It may well be that the Arctic is simply one of the numerous destinations for Chinese outward FDI, as set by a "Go Out" policy regarding resource development projects and the government's strong initiative to consume the world's largest surplus of capital. Yet at the same time, China is not entirely explicit in showing its intention towards the Arctic to the outside world. Beijing talks down its interests in the Arctic to foreign audiences but talks them up to domestic audiences. The 2015 national security law regards activities and assets in the Polar Regions as part of China's national security interests. This dualism is amplified by the low level of transparency more generally in China's policy-making, military planning, and strategic thinking.

Beyond the Arctic science community, Japan's engagement in the Arctic is often thought of as fairly recent, but this account is mistaken. Japan has had a long history of Polar engagement particularly in the Antarctic. Based on this experience, it was one of the first non-Arctic states (let alone non-Arctic Asian states) to join the IASC, establish a national polar research centre, and open a national research station in Ny-Ålesund, Svalbard. Embraced by the Science and Technology Basic Law (1995) that recognized the role of science and technology in reviving the sluggish national economy in the early 1990s, Japan's Arctic engagement has always centred on scientific research. Japan is so far the only Asian state that has its annual Arctic expedition programme as well as nation-wide Arctic research programmes funded by the government. The members of the Japanese government and scientific community regard the understanding and protection of the natural environment of the Arctic as the most important element of Japan's Arctic engagement. Tackling environmental issues such as climate change is part of Japan's global environmental policy, an area in which Japan has aspired to world leadership since the late 1980s. Seen from this perspective, it is natural that Japan's approach to legitimize its Arctic engagement is to implement policies to preserve the Arctic environment through better understanding of the region using its science and technology, as specified in the much-awaited Arctic Policy released in 2015.

This face of Japan as a humble, technologically advanced, and climate-savvy country is the one presented to Arctic states, who would like more stakeholders for environmental protection, one of the three key areas of Arctic governance. However, Japan has a slightly different face regarding management and use of natural sources and shipping, the remaining two key areas of Arctic governance. As one of the world's largest trading nations, securing safe, viable shipping routes is of vital importance for Japan and its businesses, particularly as the Japanese policy-making process is an "iron triangle" made of bureaucracy, politicians, and business groups. The OPRF has been active since the beginning of the 1990s to assess the technical feasibility of the NSR as an international commercial sea route. Long before the non-Arctic world began to pay attention to the NSR, the OPRF concluded that while the NSR was feasible, numerous and significant uncertainties made it difficult for Japanese shipping companies to generate any significant financial benefits. Although this view still lingers in the industry, public actors such as the National Security Council, MLIT, and Hokkaido Prefectural Government continue to carry out small-scale

projects on the NSR. They are able to have a much longer perspective than private actors, which is essential in order to gradually build an institutional environment that could benefit Japan's interest when and if the NSR eventually becomes a technically and financially viable sea route.

Japan's attitude towards Arctic shipping, which can be described as "planting a flag today, to be used tomorrow" (Tonami and Watters 2012), is also seen in the management and use of natural resources. Japan is highly dependent on external energy sources and it is evident that the "iron triangle" of bureaucracy, politicians, and business groups for energy policy would seek to diversify both the supply and the supplier. However, resource development projects in the Arctic are extremely expensive and risky for any private entities; therefore, only a semi-public agency company like JOGMEC is able to justify having an interest in a large resource development in the Arctic. Some "flags" that Japanese consumers and businesses regarded useful have already been used.

As seen in the Arctic example, Japan's environmental and science diplomacy in recent years is generally speaking liberal, based on Japan's ideal of promoting multilateral solutions to global problems. However, Japan's controversial research whaling policy in the Antarctic stands out in terms of the Japanese government's seemingly unnecessary adherence to its whaling policy. Given that whaling is actually neither a major economic issue nor a matter of vital national importance for Japan, it is a diplomatic tool that is used in the international but serving as a tool to achieve certain political goals in domestic politics. So far, developments in the Arctic do not pose any signs of a collision with Japan's domestic environmental politics, but comparing it with the Antarctic whaling policy gives a salient example of how domestic political factors can mediate the impact on foreign policy choices.

South Korea likewise presents a combination of domestic political factors affecting its Arctic policy. Given its relatively recent entry into Arctic-related activities, South Korea has achieved a great deal in its pursuit of further engagement. Similar to China and Japan, South Korea's Arctic engagement is often interpreted as primarily economic-driven, as South Korea too is heavily dependent on foreign energy resources and seeks to diversify energy sources. As a large, maritime trading nation, South Korea has several world-class ports and shipping companies. This is true as far as it goes, but begs the question why, then, did Korea suddenly boost its Arctic engagement after 2008, the year it submitted its application to be observer to the AC?

South Korea began its polar activities on Antarctica, starting from the late 1980s. By 2001, it had established the Arctic Scientific Committee, it joined the IASC in 2002 and opened the KOPRI in 2004. Much of the answer has to do with the Korean decision-makers' shared understanding of the role of "green" in reviving the country's economy after the global financial crisis in 2008, along with a highly centralized government with the President's Office at the centre.

The concept of Green Growth was first introduced by then-President Lee Myung-bak in 2008 when his presidency was hit early and hard by the global economic recession. The Green Growth concept regards green technologies as efficient responses in dealing with the negative impacts of climate change; environmental protection and economic growth are not mutually exclusive. In this regard, the Green Growth concept offered ideal opportunities domestically and externally. At home, the Green Growth concept served as a prescription to get South Korea's economy back on track. Abroad, the paradigm was used to establish South Korea as a truly global player; no longer a country catching up with the rich developed world, but a country taking a lead on global governance issues. The concept was paraphrased as "creative economy" and remained after the new administration of Park Geun-hye took office in 2013, which continued to exercise middle-power diplomacy in the post-2008 financial crisis period. Indeed, the Arctic is a perfect space to exhibit Korean diplomatic entrepreneurism in the emerging international order. South Korea, a Polar-leading nation, is committed to facilitating international communication and promoting sustainable Arctic business, as stated in the Pan-Government Arctic Policy Master Plan that was released as soon as Korea gained the new observer status to the AC in 2013.

The ability of the Korean government to swiftly change its course and make necessary actions according to what is perceived as the right direction is largely due to the strong leadership of the President's office. This can act as both an advantage and disadvantage; it can lead to the speedy decision-making and policy implementation that reflects the changing domestic and external environments, while there remains a strong potential that these policies and institutions can lack a holistic view on the matter to be tackled. In relation to the Arctic, this manifested itself in the lack of coordination of related ministries when a fishing vessel floundered in the Bering Sea only months after the tragic sinking of MV *Sewol* and subsequent major policy changes.

For Arctic shipping and management and use of natural resources, Korea takes a similar approach to that of Japan. Helped greatly by the South Korean state's long-term partnership with domestic corporate power represented by the *chaebol* groups, the government and businesses complement one another on planning for long-term and short-term economic possibilities. In the short term, Korean shipping and resource industries do not regard conducting business in the Arctic as economically viable, although disregarding it completely would be unwise. That job is left to public institutions such as the central government or regional port cities that are able to hold a longer-term view. Therefore, these institutions are much more active in promoting the idea of the Arctic–Korea nexus through activities of international collaboration and research than the shipping and resource industries themselves.

Singapore's Arctic engagement shows an example of small-state diplomacy in an Asian way. As a small island city-state surrounded by more powerful neighbours, participation in regional or multilateral organizations has been crucial in Singapore's foreign policy. While Singapore understands its role as, primarily, a spectator to the changing power patterns of the world, in international or multilateral organizations like the UN, even small nations like Singapore can obtain formal equality, potential security of membership, and the ability to exert influence beyond their size. Protecting its sovereignty is Singapore's core interest, and as a developmental state whereby the legitimacy of the state derives from economic growth, advocating the interests of core industries such as shipping, the port sector, and offshore and maritime engineering sector on their behalf have been of vital importance for Singapore. Aside from the conventional tools of balance of power, international institutions such as UNCLOS and IMO offer additional instruments Singapore can manoeuvre, as shown in Singapore's active participation in the development of the Polar Code. As realists, Singapore's leaders are keenly aware of the need to understand the navigation, energy, and environmental dynamics in today's Arctic development in order to guard against Singapore becoming a "global irrelevance" in the way that modern Venice as a port city has become.

Realist notions about the Asia and Arctic are more suitable when looking at India's interest in the Arctic. India's engagement is primarily driven by geopolitical concerns, even compared to other Asian states discussed in this book. Concerns about climate change aside, India's application for

Observer status at the AC was the result of a pragmatic awareness that India could be losing out to its long-term rival China, as well as a deep desire to gain or regain status in international forums backed by a sense of victimization under colonialism.

Insights from the Theoretical Framework

The theoretical framework of this study—that Asian states pursue state-led development and exercise their economic diplomacy in the pursuit of economic security within an anarchic system in the Arctic—was intended to provide a basis for capturing the nature of Asian engagement in the Arctic. This framework is particularly useful to analyse the purpose or primary goals of Asian states' Arctic policy, rather than their legitimacy to be involved in Arctic governance.

As illustrated in Tables 7.1 and 7.2, Asian states' Arctic policies incorporate various tools of economic diplomacy that can be described as primarily economic or primarily political in character. The majority of their Arctic-related activities are tools of commercial diplomacy (trade and investment promotion), such as Arctic scientific programmes, joining international/multilateral organizations, and the promotion of the NSR. These tools are political but their primary goals are economic. Economic Partnership Agreements (EPA) or FTAs with an Arctic state(s) appear popular among the Asian states discussed in this book. EPA/FTA is a tool of trade diplomacy, which is also a political tool with primarily economic goals. Resource development projects and the possibility of using the NSR to transport such resources are tools to secure supply of natural resources, and are placed as an economic tool aimed at achieving primarily political goals rather than primarily economic goals. Seen from the mere count of tools of economic diplomacy that have been used to date by Asian states, it appears that Asian states use more of political tools to achieve primarily economic goals, rather than economic tools to achieve primarily political goals. Moreover, of the five Asian states, China, Japan, and South Korea are the most actively engaged and they use rather similar approaches. These findings confirm that, for the time being, Asian states regard the economic aspect of the Arctic as being of far more importance than the political aspect. As countries that pursue state-led development, achieving economic security—the economic prosperity and political stability of a nation—comes as their credos.

Table 7.1 Asian states and their economic diplomacy towards the Arctic

Type of diplomacy	*Characteristics*	*Tools*	*Countries*
Commercial diplomacy	Political tools with primarily economic goals	Arctic scientific programmes (Trade promotion)	China, Japan, South Korea
		Joining international/multilateral organisations (Trade and investment promotion)	China, India, Japan, Singapore, South Korea
		Promotion of NSR (Trade and investment promotion)	China, Japan, South Korea
Financial diplomacy	Political tools with primarily political tools	Currency swap with an Arctic state(s)	China
Trade diplomacy	Political tools with primarily economic goals	FTA/EPA with an Arctic state(s)	China, Japan, South Korea, Singapore
Inducements	Economic tools with primarily political goals	Securing supply of natural resources (Resource development, NSR)	China, Japan, South Korea

Source: Author's own compilation

Yet at the same time, simply counting the number of policies implemented does not capture the varying "appetite" of Asian states towards the Arctic. Perhaps the only sign here is that China is the only state to use a tool of financial diplomacy towards one of the Arctic states, Iceland, clearly with an intention to achieve primarily political goals. In addition, China has, by a wide margin, been most forward-leaning in seeking to secure supply of natural resources of the largest scale, shown in the size of the resource development projects in Russia. Compared to other Asian states, the Chinese government has not been reticent about marking that the Arctic has a political significance for China. From this perspective, as Chen (2012) pointed out previously, China's ultimate goal in the Arctic remains somewhat unknown.

Table 7.2 Asian states and their Arctic policies

	China	*Japan*	*South Korea*	*Singapore*	*India*
Polar expedition	—	1910–1912, Antarctica	—	—	1981–1982, Antarctica
Spitsbergen Treaty (1925)	1925 (as Republic of China)	High Contracting Party	2012	—	1923 (extension by UK)
IASC (1990)	1996	1991	2002	—	2012
UNCLOS (1982)	1982	1983	1983	1982	1982
IMO (1959)	1973	1958	1962	1966	1959
Arctic Council	2006	2009	2008	2012	2012
Founding of National Polar Institute	1989	1973	1987	—	1998
Start of Svalbard base	2004	1991	2002	—	2008
No. of Svalbard base	1 (Yellow River)	2	1 (Dasan)	—	1 (Himadri)
Other Arctic bases	—	Greenland, Finland, Iceland, etc.	—	—	—
Icebreaker for polar research	1 (1 under construction)	1	1	—	—
Arctic programme	No systematic scientific research	GRENE project (2011–2015) ArCS project (2015–)	No systematic scientific research	—	No systematic scientific research

Source: Author's compilation

Implications for Policy

It was not the purpose of this book to generate policy recommendations; however, there are implications of this study that can be useful for policy-makers. First, just as it is obvious that what we call the West is

not uniform, none of the Asian countries discussed in this book can be considered the same. Following the debate in the Arctic region, despite acknowledging various types of diversity, be it ethnic or gender, inside the Arctic region, Asia has almost always been defined as China or at best, the developed economies of the Far East. This book presents an interesting array of different approaches and principles of foreign policy as Asian states try to tackle the changing political, economic, and environmental relevance of the Arctic region. It is, therefore, irrational and potentially highly mistaken to evaluate and all Asian states according to only one assessment. If the policy-makers of the Arctic states are committed to getting Asian stakeholders on board as partners in a common future, it is crucial to pay attention to the dynamics of different national approaches, as well as the emerging sense of regional identity in Northeast Asia, boosted by strong economic interdependence in the region (Choi 2015). Moreover, it would be useful for Asian states to share and learn from other Asian states' Arctic policy as they share similar attitude towards the Arctic as the findings suggest.

Having said that, it is nevertheless critical to patiently watch China's engagement in the future, as there is no doubt that China will remain one of the most prominent Asian stakeholders in the Arctic given its economic and military power. Findings from this book imply that China's attempt to secure supply of natural resources via resource development projects in the Arctic region and the promotion of NSR could be part of China's broader regional development strategy via infrastructure investment and industrial development, expressed in the One Belt, One Road (OBOR) initiative (Caixin online 2014) also known as the Maritime Silk Road or symbolized as the establishment of the Asia Infrastructure Investment Bank. Although the details of the OBOR initiative remain vague, according to Wang Jun, a Chinese economist who drafted the idea of the OBOR, realizing the further strategic cooperation with Russia and thereby "going North" is one of the multifaceted aims of the initiative (Wang 2015). Moreover, as seen in the National Security Law and the speech by the Chinese foreign minister Wang Yi, China regards the Arctic as an integral part of its comprehensive polar strategy. The question remains how the Arctic and the Antarctic constitute China's overall maritime strategy in the years to come.

Asia will remain an influential region for the Arctic and beyond. Domestic political forces, simultaneously influenced by events and phe-

nomena beyond their borders, will remain key factors in the future of Asia in a changing Arctic.

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[1] bold=extended discussion; f=figure; n=endnote or footnote; t=table

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