NAVIGATING THE ARCTIC: PLAYERS FROM ASIA

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For the next few decades, the Arctic will provide problems and prospects which may induce inevitable competition for the lion's share among the stakeholders. While the Arctic was perceived as an undiscovered area and a non-navigable ice cap in the past, recent environmental and scientific changes have brought to the fore the assets of the region. The current size of the ice cap has shrunk by more than 40 percent compared to its size in the late 1970s, which has disclosed an area of open water. The enlarged open water provides the opportunity to explore more economic benefits, and for larger marine and other military activities. The major stakeholders sharing the coastal line of the Arctic are eight states members of the Arctic Council: Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and the United States. Presently, these states are putting in their utmost efforts into investigating and participating in exploring the Arctic, which will be the foundation of the legal claim for sovereignty.

However, the area afloat with ice is attractive not only for the current Arctic coastal states, but also potential stakeholders for economic, environmental, and military interests. East Asian countries like China, South Korea, and Japan are making strides in engaging in Arctic politics with their advanced maritime research and agendas. Those efforts encourage many other states to join the Arctic Ocean, which engenders the controversy of sovereignty on

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the common property of the region. The sovereign claims over natural resources and territorial lines around the North Pole will be the vital factor to alter the maritime security architecture anew, if a country's Arctic policy is successfully acclaimed and received.

Despite the complexity of the issue, the significance of adventure into the Arctic appeals to India as well. As an aspirant of global power with various drivers and scenarios, India has evolved its Arctic policy in a strategic calculation despite its physical distance from the area. Since the Arctic security architecture, or maritime regime is yet to be demarcated, the interested countries such as India, need to evolve a coherent and functional security policy. Thus, this paper explores the potential stakeholders in Asia as well as the current key players in the Arctic Council.

THE ARCTIC FIVE TODAY

The Arctic Ocean covers 2.8 percent of the earth's surface and nearly 4 million inhabitants share the environmental diversity of the region.[1] According to the US Geological Survey, the Arctic is estimated to enclose around 13 percent of the world's oil reserves, 30 percent of its natural gas[2], a full extent of minerals as well as rare earths, and potential spots for renewable energy such as tidal and wind resources.[3] With the growing energy demand in the world, the desire and need to access those resources increase, inviting proactive engagement by many countries, and creating the so-called Arctic gold rush.[4] At the same time, militarisation in this

1. Paul Arthur Berkman, *Environmental Security in the Arctic Ocean* (Abingdon: Routledge, 2009), pp.10-30.
2. Todd L. Sharp, "The Implications of Ice Melt on Arctic Security", *Defence Studies*, vol.11, no.2, 2011, p.297.
3. Melissa Bert, "The Arctic is Now: Economic and National Security in the Last Frontier", *American Foreign Policy Journal*, Vol.34, 2012, p. 5.
4. Roger Howard, *The Arctic Gold Rush: The New Race for Tomorrow's National Resources* (London: Continuum. 2009).

region may be observed regarding structuring the legal and non-legal bindings that will impact the global security framework. In particular, the Arctic Council countries are endeavouring to protect accessibility for economic interests and military assurance to achieve their security goals.

According to the US Geological Survey, the Arctic is estimated to enclose around 13 percent of the world's oil reserves and 30 percent of its natural gas.

At the outset, Russia seems to be the one of the countries that aspires for the largest stake in the Arctic, by preserving its stand in the global security architecture.[5] As a country with the largest territorial line, along with the Russian-Arctic population of nearly 2 million[6] and 22 percent of total export through this region, Moscow's interest is focussed on exploration and claims of economic and military needs.[7] Russia currently has the largest Exclusive Economic Zone (EEZ) and stretch of the Arctic shoreline, and is anticipated to seek more oil and gas fields after the Norwegian-Russian maritime delimitation treaty that took effect in July 2011.[8] Russia is exploring and investing in drilling in the new zone next to the Zemlya archipelago in the Kara Sea, the Pechora Sea, in the Yamal field, and the Prirazlomnoy oil field.[9]

For Russia, the Arctic policy represents a reinforcement of influence after the Cold War in competition with the US and North Atlantic Treaty Organisation (NATO). Russia's *National Security Strategy to 2020*, released in 2009, enumerates the priorities of the national security policy in the Arctic by focussing on physical control over the objective and the necessary process in compliance with the international regime.[10] By emphasising a pragmatic approach to maintain competitiveness in this region, *Russia's National Security Strategy to 2020* focusses on strengthening the protection

5. Michael Roi, "Russia: the Greatest Arctic Power?", *Journal of Slavic Military Studies*, vol. 23, 2010, pp. 551-573.
6. Berkman, n. 1, p.22.
7. Roi, n. 5, p. 561.
8. H.A. Conley, et.al, "A New Security Architecture for the Arctic: A Report of the CSIS Europe Program", Centre for Strategic & International Studies, 2012, pp. 3-5.
9. Ibid.
10. Government of Russia, *Russia's National Security Strategy to 2020*, http://rustrans.wikidot.com/russia-s-national-security-strategy-to-2020

of national interests in collaboration with the G-8, G-20, RIC (Russia, India, China), BRICS (Brazil, Russia, India, China, South Africa), yet is not in favour of NATO, and is conditional with the US.[11]

The military consideration seems to be an inevitable option for Moscow with the experience of the Cold War, competition in the European Arctic that ranges from the Barents Sea and Greenland-Iceland-United Kingdom to the North American continent.[12] Heavy naval preparedness around the Arctic coastal area is interpreted as "proof of Russia's serious intention to return to the world's oceans as a leading naval power".[13] Besides, the strategic necessity of the Arctic Ocean extends to military operations that support nuclear deterrence. For instance, Murmansk Oblast, located in the northwestern part of Russia, close to the Norwegian border, is a focal military base for the Russian Navy, providing a great extent of the nuclear triad-strategy inherited from the Cold War experience.[14]

Another aspect of physical protection in this area comprises the border and sovereignty issues. The increase of open water has become a watershed to motivate and generate commercial and strategic value. Moscow has put the Arctic border dispute on the front burner to accumulate information about the outer limit of further than 200 nautical miles (nm) agreed upon by the United Nations.[15] The Lomonosov Ridge, a 1,800-km-long underwater ridge discovered by the Soviet expeditions in 1948, is one of the highest priority security issues for Moscow in the long-term that is expected to be a conflicting point with Denmark. As the area has potential natural resources, it is presumed, mostly by the West, that Russia would obtain exclusive accessibility of this with a 1.2 million sq km EEZ, if and when its claim is taken up by the United Nations Convention on the Law of the Sea (UNCLOS).[16] In pursuit of its policy goal, there is alongside the development of Arctic

11. Ibid.
12. K. Åtland, "The Introduction, Adoption and Implementation of Russia's 'Northern Strategic Bastion' Concept, 1992–1999", *Journal of Slavic Military Studies*, vol. 20, no.4, 2007, p. 499.
13. Roi, n. 5, p.566.
14. Ibid., pp.564-565.
15. Ian G. Brosnan, "Cooperation or Conflict in a Changing Arctic?", *Ocean Development & International Law*, vol. 42, no.1-2, 2011, p. 173.
16. Conley, n. 8, pp.10-11.

science and technology in indigenous research that will also facilitate security missions. Also, tax-exemption rules have been introduced to boost local development that is anticipated to assist infrastructure in the field of oil drilling in the Teriberka and Yamal region. [17]

Due to the size and stature of the Russian Arctic, other European and Northern American states seem to be more cautious about protecting their assets and surmounting an asymmetric situation through individual security and multilateral mechanisms. Among them, Norway, with a long sea line along the Arctic (the so-called Arctic Norway), was one of the foremost countries in the two-bloc contests during the Cold War. Oslo played a big role in nuclear and maritime security, watching over the Soviets, especially their sea-based strategic force in the Kola Peninsula.[18] Oslo mulls over the Russian factor, mostly to envisage hard and soft security policies. In the perspective of hard security, and as a member of NATO, Norway's biggest concern is Russia's substantial investment in maritime security, allotting more than 40 percent of its defence budget to the navy, strengthening nuclear deterrence with strategic nuclear submarines such as nuclear ballistic-missile submarine forces (SSBNs), and airborne nuclear capability with Long Range Aviation (LRA).[19]

In view of the foreseeable scenario of melting ice, Oslo has been paying attention to the Northern Sea Route (NSR), including sea transportation and natural resources that are needed in order to render cost-effective policies. Norway perceives a necessity to seek economic advantage while contending with the Northern Sea Route Administration in Russia's supervised transportation system.[20] As all the strategic steps taken are related to the framework of legal and basic tools for the Arctic Ocean, Norway is exploring a new platform of the Arctic policy, launching the High North

17. Ivan Rubanov, "Gazprom in Europe: Russian Government Plans to Share Part of Yamal Gas Resources", October 29, 2009,. http://www.telegraph.co.uk/sponsored/russianow/6461238/Gazprom-in-Europe-Russian-government-plans-to-share-part-of-Yamal-gas-resources.html
18. Rolf Tamnes, "Arctic Security and Norway", in James Kraska, ed., *Arctic Security in an Age of Climate Change* (New York: Cambridge University Press, 2011), pp.47-48.
19. Ibid., pp.50-51.
20. "Russia Revives Northern Sea Route", *The Voice of Russia*, December 17, 2012, http://english.ruvr.ru/2012_12_17/Russia-revives-Northern-Sea-Route/

Policy, renovated in 2011.[21]

The High North Policy has evolved from the structuring of the Arctic governance, and encompasses complex security issues in the civil and military realms.[22] Although the geographical terms High North and Arctic are not synonymous, the policy embodies the Norwegian perspectives of the norms and multilateral mechanisms of the Arctic Council, within the European Union (EU) framework, along with a continuum of Norwegian security practices of cooperation and diplomacy, with Russia, in particular.[23] In the same manner, a joint nuclear safety commission was launched in 1988 by Norway and Russia, for the clean-up and storage mission of nuclear waste, with other EU countries.[24] However, from the perspective of Oslo, the intention of Moscow is acknowledged more as one aimed at security, rather than cohesive power.[25]

Another proactive country is Canada, a member of NATO and the Arctic Five, with the second-longest Arctic coastline. Ottawa's Arctic policy moves forward in a more practical manner to protect its assets against three dominant factors: Russia with its high-visibility defence force in the Russian Arctic, territorial disputes with the US in the Beaufort Sea where Alaska and the Yukon meet, and territorial disputes with Denmark over Hans Island, located in the Nares Strait.[26] However, in general, Canada's sovereign claim in the Arctic, the so-called Canadian Arctic, faces no challenges to its land except Hans Island.[27]

While Canada's identity in the Arctic was more peaceful than military before the Cold War, it is constantly being modified due to the change in climate, expectation of rights to natural resources, international maritime

21. Ministry of Foreign Affairs, Government of Norway (2011), *The High North: Vision and Strategie*,, Meld. St. 7 (2011-2012) Report to the Storting (White Paper), http://www.regjeringen.no/upload/UD/Vedlegg/Nordomr%C3%A5dene/UD_nordomrodene_innmat_EN_web.pdf
22. Odd Gunnar Skagestad, "The 'High North': An Elastic Concept in Norwegian Arctic Policy", *FNI Report,* 10/2010, Fridtjof Nansen Institute, pp.1-22.
23. n. 21.
24. Geir Flikke, "Norway and the Arctic" in James Kraska, ed., *Arctic Security in an Age of Climate Change* (New York: Cambridge University Press, 2011), pp. 70-71.
25. Ibid., p.72
26. Margaret Blunden, "The New Problem of Arctic Stability", *Survival*, vol. 51, no.1, 2009, pp.126-127.
27. Rob Huebert, "Canada and the Newly Emerging International Arctic Security Regime", in Kraska, ed., n. 24, p. 195.

regime, and defence policy. During the Cold War, the Russia and the US factors were dominant for Canada; for instance, Canada collaborated with the US in defence issues such as the Distant Early Warning (DEW) Line. Ottawa approved the US military transportation in addition to commercial transit.[28] Although Canada and the US are prone to taking pragmatic positions as neighbouring states, the use of the Northwest Passage evokes disagreement between Ottawa's sovereign claim (based on the bylaw of inland water) and Washington's position (based on common property).[29]

Legally, Canada is the first country to enforce its domestic law to prosecute a criminal case against a patrol of the Royal Canadian Mounted Police (RCMP) outpost in the Canadian Arctic that comprises a key element of its legal foundation of sovereignty.[30] Canada also commenced with an undersea mapping expedition to underpin its continental shelf submissions to the UN Commission on the Limits of the Continental Shelf (CLCS).[31] Canada's concern over the Arctic resources has led it to bolster its military presence in this region, to be able maintain a grip on the natural resources in the Arctic Ocean, in the event of a potential conflict.

Ottawa's strategic intent is presently visualised by establishing military infrastructure: a special Winter Warfare Training Centre at Resolute Bay in 2007, and a "deep-water" port at Nanisivik, Nunavut, which includes the expansion of a naval base during 2010-15 with a budget of US $ 100 million allotted. The current defence strategy that originated from the Stephen Harper government in 2006, specifically elaborates the Canadian Arctic policy by outlining the investment in "procurement of new equipment, expansion of special Arctic forces" by 2028.[32] The Royal Canadian Air Force extends and stresses its mission to patrol the Canadian Arctic through the deployment of CP-140 Anti-Submarine Warfare (ASW) aircraft, Unmanned Aerial Vehicles (UAVs), and helicopters. Furthermore, various plans have

28. Ken Coates, et. al., *Arctic Front: Defending Canada in the far North* (Toronto: Thomas Allen Publisher. 2008).
29. Todd L. Sharp, "The Implications of Ice Melt on Arctic Security", *Defence Studies*, vol. 11, no.2, 2011, p.305
30. Coates, n. 28.
31. Sharp, n.29, p.303.
32. Siemon T. Wezeman,, "Military Capabilities in the Arctic", *SIPRI Background Paper*, SIPRI, March 2012, p.1

been introduced to purchase new aircraft for the Arctic region, aimed especially at the Russian defence force.[33] A heavy investment is also seen in the Canadian Army and Navy to expand their capabilities by gathering scattered conventional military resources and purchasing new equipment. The Royal Canadian Navy has revealed its plan to procure imported armed and unarmed icebreakers for patrols.[34]

Competing in the Arctic rush, the US' Arctic policy is zooming in on two main points to break out of the perception of being a smaller stakeholder than its counterparts: wider and deeper engagement in the Arctic by establishing a historical and national identity, and providence of a strategic vision that strengthens the US leadership and international cooperation to mitigate the US' scarce capability and accessibility. Compared to Canada and Russia, the US has a shorter coastline and less population in Alaska, which calls for a more active Arctic policy by political and military policy coordination. In 2007, the US Arctic policy faced a new phase of development, with synchronisation between the National Security Council and the Department of State that became nurtured as the "Arctic Region Policy" under the guidance of the National Security Presidential Directive 66 (NSPD-66)/ Homeland Security Presidential Directive (HSPD) 25 in 2009.[35] Drawing up the policy objectives on securing the environment and natural resource management, the US clearly focusses on homeland security and defences.[36]

The goal of the Arctic policy seems to be extended and amplified by the cross-ministrial coordination, as seen in the Report to Congress on Arctic Operations and the Northwest Passage under the Department of Defence in 2011, with the elaboration of three steps of the Arctic operations: in the near-term (2010-20), the mid-term (2020-30), and the long-term (beyond 2030).[37] The operational capability is diagnosed by a Capability Assessment Approach, with tri-Service assessment in the Arctic, especially of the US

33. Ibid.
34. Sharp, n. 29, pp.305-6.
35. James Kraska, "The New Arctic Geography and U.S. Strategy", in Kraska, ed., n. 24, p. 246.
36. The White House, NSPD-66/HSPD-25, *National Security Presidential Directive and Homeland Security Presidential Directive*, January 9, 2009. http://www.fas.org/irp/offdocs/nspd/nspd-66.htm
37. Department of Defence, federal government of the United States , *Report to Congress on Arctic Operations and the Northwest Passage*, May 2011, pp. 3-16.

Navy's participation. The role of the US Navy has become one of the main drivers of the maritime strategy and "military presence, deterrence, maritime security, and Humanitarian Assistance/Disaster Relief (HA/DR)" that require larger investment in weapon platforms sensors.[38] The US Navy aspires to enhance tactical maritime and aerospace manoeuvrability as one of the primary strategic components of nuclear deterrence, mainly based on the SSBN.

However, Washington's global strategy mobility invites more than the navy's capability to operate in the Arctic Ocean to complete Ballistic Missile Defence (BMD), for instance. Since the Arctic region is a part of the US deterrence strategy, the joint deterrence concept is applied by having a role for the US Air Force to improve aerospace surveillance capability, with due consideration for the lack of military associated infrastructure such as deep-water ports or airfields. The US Air Force has operated the upgraded Cobra Dane radar since 2004 to maintain its strategic position for deterrence and aerospace missions in support of the National Aeronautics and Space Administration (NASA).[39]

Despite Washington's strong will to protect its Arctic assets, a lack of political consensus on the federal budget has made the progress on the policy perspectives somewhat slow. Arctic activities require more time and capital consuming investment than other foreign policy issues. On the Arctic issue, the US leadership faces the issue of cost-effectiveness, due to the low-threat environment.[40] Also, there are many critics in the domestic sphere, leading to a lack of focus on the communications, surveillance, and command and control in the areas of smuggling, terrorism, illegal fisheries, and environmental obliteration.[41]

THE ASPIRANTS IN ASIA

Since there is a basic understanding about the common property rights

38. David W. Titley, and Courtney C. St. John, "Arctic Security Considerations and the U.S. Navy's Roadmap for the Arctic", *Naval War College Review*, vol. 63, no. 2, 2010, pp. 43 and 45.
39. Kraska, n. 35, pp.253-255.
40. Ibid., p.256.
41. Bert, n. 3, p. 6.

China established its first and only Arctic scientific research base, the Yellow River Station in Ny-Ålesund, Svalbard, Norway, in 2003.

that calls for both sovereign rights and global governance, the Arctic sovereignty is claimed by many non-littoral states, especially from maritime-powered countries in East Asia: China, South Korea and Japan. Despite being non-littoral states, yet having high-altitude ports, the three countries are engaging actively in the Arctic politics in Asia with the status of ad-hoc observer. The complexity this adds to the Arctic Ocean was captured by their vibrant move in 2009, when China and South Korea applied for permanent observer status along with Norway, Italy, and the EU, which is yet to be granted.

Among all of these, as a "near-Arctic state"[42], China has received attention during the negotiations for higher status in the Arctic Council, seemingly depending on China-Nordic cooperation such as support from Sweden. However, it received opposition from Norway, Canada, and Russia.[43] It is complicated to judge whether and how Sweden's support to China can be demonstrated as an analysis of China's approach to the Arctic littoral states. According to Linda Jakobson (2010), only Canada and Norway have so far remained in engagement with China by formal bilateral talks.[44] For instance, China established its first and only Arctic scientific research base, the Yellow River Station in Ny-Ålesund, Svalbard, Norway, in 2003.[45]

However, there is disagreement about China's Arctic strategy or policy *per se*, whether and how aggressively the Arctic policy is formalised as an independent policy and as a part of its global strategy, as China's precise target in the Arctic seems to be presently structured around a goal of independent accumulation of scientific expeditions and technological cooperation with the circumpolar states. Despite that, China's involvement

42. Johan McClatchy Nylander, "China a 'Near-Arctic State': Swedish Think Tank", *Tribune Business News*, May 11, 2012.
43. Ibid. Also, Olga V. Alexeeva and Frédéric Lasserre , The Snow Dragon: China's Strategies in the Arctic, *China Perspectives*, no.2012/3, 2012, p.61.
44. Linda Jakobson "China Prepares for an Ice-free Arctic", *SIPRI Insights on Peace and Security*, March 2010, SIPRI, p.11.
45. "Arctic Yellow River Station", Polar Research Institute of China, http://www.pric.gov.cn/enindex.asp?sortid=17

in this region has invited strong and mixed reactions from the Arctic states after two events: China's admission into the International Arctic Science Committee (IASC) in 1996, and the unexpected appearance of China's research icebreaker in Canadian territory in 1999.[46]

Since then, China's engagement in the Arctic has been soaring due to its energy and security needs. Beijing's polar scientific research is in continuum with developing independent research expeditions with an indigenous polar expedition icebreaker, *Xue Long* (Snow Dragon), introduced in 2012 to cruise the Northern Sea Route to the Barents Sea and Bering Strait, and eventually to return.[47] On the other hand, China's Arctic exploration is not limited to use of the vessel, but by the need to purchase more airplanes, which are in the pipeline. China's plan for a sixth expedition in 2013 is going to involve more intensive research work to seek and evaluate its strategic interest in the region.[48]

China's growing interest in the Arctic shows that besides scientific research, the policy direction tends to cover three main priorities: energy security, maritime security (mainly regarding sea-based transportation), and participation in establishing an international regime, with China's leading role in global politics. In the light of assurances that China will share the largest portion of global energy demand by 2035[49], Beijing faces the inevitable option of active economic diplomacy with the Scandinavian states and Russia. China has signed several agreements with Norway, Denmark, Iceland, and Russia since 2001 to expand cooperation on joint Arctic research, natural resource exploitation, and academic exchange, and so on, via inter-governmental and non-governmental forums[50]. Compared to China-Nordic cooperation that continues in a reciprocal manner, Beijing's collaboration with the Northern American states is

46. Alexeeva and Lasserre, n. 43 . p.61.
47. Trude Pettersen, "China Will Continue its Presence in the Arctic and Plans to Launch its Sixth Expedition to the Region in 2013", *Barents Observer*, January 15, 2013. http://barentsobserver.com/en/arctic/2013/01/china-plans-new-arctic-expedition-15-01
48. "China Eyes More Polar Voyages, Bases", *People's Daily Online,* January 10, 2013. http://english.people.com.cn/202936/8087769.html
49. International Energy Agency (2012), "World Energy outlook 2012", November 12, 2012. http://www.worldenergyoutlook.org/media/weowebsite/2012/PresentationtoPress.pdf
50. Alexeeva and Lasserre, n. 23..

In consideration of its strategic interest, China is known to allot more to its budget on the Arctic Sea Route research than even the US.

limited, and presumed not to be accommodative to military competition with the US. [51]

Furthermore, China is keen to explore the openings on the Northern Sea Route (NSR) for "regular commercial transit".[52] Since the NSR was formally opened to vessels from foreign parts since 1991, China's approach to the NSR through its high altitude port has become one of its upfront investments, even as Russia attempts to remain dominant in this region.[53] It renders a number of strategic approaches from China: cooperation with Russia and the Scandinavian countries, establishing a geo-strategic point vis-à-vis NATO, and exploring a sovereign claim that will support China's position in a future maritime regime. In consideration of its strategic interest, China is known to allot more to its budget on the Arctic Sea Route research than even the US.[54]

Like its approach to Antarctica, China's Arctic policy aims at creating a leading role for itself in the Arctic. China has a large number of polar research institutions, including an independent research laboratory, which attracts intense attention from the Arctic Council countries. The Polar Research Institute of China (PRIC), with a staff of more than 140, only for polar research, the China Institute for Marine Affairs under the State Oceanic Administration (SOA), and the Institute of Oceanology under the Chinese Academy of Science represent China's keen interest in this region.[55] Furthermore, more than six universities are known to conduct Arctic research in different subjects, yet it is unknown how far the Arctic politics is studied, which will eventually vindicate its interest and claim to play a leading role in this international legal framework.

51. Ibid.
52. Margaret Blunden, "Geopolitics and the Northern Sea Route", *International Affairs,* vol. 88, no.1, 2012, p. 115.
53. Ibid.
54. "China Spending More on Arctic Sea Route Research than US", *Business Standard*, March 14, 2013.
55. Linda Jakobson, "China Prepares for an Ice-free Arctic", *SIPRI Insights on Peace and Security*, March 2010, SIPRI, pp. 4-5.

Another vibrant country, South Korea, also seems to be gaining momentum with three themes: exploring the natural resources, engaging in the shipbuilding industry and infrastructure sectors, and seeking an assured commercial and logistical interest in the NSR. In 2012, the South Korean President visited the Arctic, reflecting South Korea's ambition to become an influential player.[56] Following the visit, the President also toured Russia, Greenland, and Norway, with the goal of bolstering cooperative efforts and vying for a bigger stake in this region. In a reciprocal manner, Norway and Denmark blinked the green signal to Seoul to support Seoul's appeal for permanent observer status.[57]

As a country which heavily relies on energy supplies through the sea routes, South Korea is keen to secure its supply route through cooperation within an international legal framework.[58] South Korea is the sixth largest oil importer and is heavily dependent on the Middle East, indicating its need to diversify its sources of energy imports. With cutting-edge technology and infrastructure, Korea anticipates that shipbuilding and engineering will extend its collaboration with the Arctic countries.[59] The RV *Araon*, is expected to continue a mission for exploration and rescue, as its capability has been proved in the Antarctic region. The South Korean government budgeted US $ 93 million to build the icebreaking vessel in 2005 to concede the significance of polar activity, despite its high cost,[60] The government also sanctioned US $ 3.1 billion to reinforce research capability by 2020 for the "offshore industries and Arctic shipping sectors".[61]

Also, South Korea desires the protection of its logistical and commercial route. Seoul initiated the coordination between the Korean Transport Institute (KORI), and the Korea Maritime Institute (KMI) to fulfill the goal.

56. Steven Borowiec, "South Korea Angles for Influence on Arctic Policy", *WPR Briefing*, September 25, 2012, pp.2-3
57. "Map of Permanent Participants in the Arctic Council", *Alaska Dispatch*, September 26, 2012. "Korea, Denmark Team up for Arctic Oil El Dorado", *The Korea Herald*, March 10, 2013.
58. Blunden, n. 52, pp. 123-5.
59. "Korea Seeks Bigger Role in Arctic", *The Korea Herald*, May 15, 2012.
60. "The Icebreaker ARAON Exploring the Antarctic", February 21, 2012, http://www.korea.net/NewsFocus/Sci-Tech/view?articleId=98816
61. "South Korea Pledges $3bn to Offshore and Arctic Shipping Research", *Seatrade Global*, July 20, 2012. http://seatrade-global.com/news/asia/south-korea-pledges-$3bn-to-offshore-and-arctic-shipping-research.html

In 2009, a South Korean icebreaker sailed to Western Europe through the NSR with the hope of reducing the standard 10 days and approximately 3,500 miles required.[62] The marine transportation is one of Seoul's priorities that match its growing role in the region. Whereas China is obtaining a number of icebreakers and nuclear submarines, South Korea seems to be protecting its position by shipbuilding. Samsung Heavy Industries and Hyundai Heavy Industries have been developing advanced dual use vessels, beyond icebreakers.[63] Recently, Hyundai Heavy Industries accomplished the project of a 190,000-ton icebreaking iron ore carrier.[64] As many agree, Seoul's interest in the Arctic is mostly focussed on the commercial area as well as environmental issues.

The polar research in Korea is primarily guided by the Korea Polar Research Institute (KOPRI). In 2002, KOPRI launched the Dasan Station, a research centre for polar research, at Ny-Ålesund, Norway. Various strategies for promoting polar research are suggested for the domestic sphere: strengthening the feedback mechanism by legislating activity, utilisation of the institutional basis to interact with various types of expertise, and accumulation of scientific and policy materials.[65]

Japan is also moving forward, with efficient utilisation of the Arctic Ocean, with a purpose similar to that of China and South Korea. Tokyo claimed a stake in the Arctic with an application for observer status in 2009.[66] Japan launched the Arctic Environment Research Centre (AERC) as part of the National Institute of Polar Research (NIPR) in 1990 and reorganised it in 2004 with the cooperation of joint university ventures.[67] The Japanese government has also established a local research station at Ny-Ålesund to research glaciology, oceanography, terrestrial biology, and so on.

62. Borowiec, n. 56, pp.2-3
63. Blunden, n. 52, pp.123-125.
64. Borowiec, n. 56, pp.2-3
65. Bang-young Lee, "Strategy for Activation and Promotion of Polar Research", Korea Polar Research Institute 2010, vol.4, 2010, p.6.
66. "Japan Latest Non-Arctic Country to Claim Stake in North Pole", *Sun Media,* September 3, 2010.
67. Division for Polar Research, National Institute of Polar Research, Arctic Environment Research Centre, http://www.nipr.ac.jp/english/polar-research02.html

Presently, ministerial-level coordination is organised to bolster competitiveness and efficiency in the Arctic policy. The policy coordination among the Ministries of Education, Culture, Sports, Science and Technology (MEXT), Ministry of Foreign Affairs (MoFA) and Ministry of Land, Infrastructure, Transport and Tourism (MLIT) extends a policy-wide guidance at government level that includes the three pillars of the Japanese policy-making process: the civil service, politicians and business actors—an "iron triangle".[68] Since the Japanese government applied for permanent observer status in the Arctic Council, the task force team at the ministerial level has provided large-scale funding for the Arctic research project, in particular under the guidance of MEXT. In pursuit of a government-driven scenario, three major research institutions are at the forefront of lead research projects and the policy-making process: the National Institute of Polar Research (NIPR), Japan Agency for Marine-Earth Science and Technology (JAMSTEC), and Japan Aerospace Exploration Agency (JAXA). And ten universities are known to work on the Arctic and polar-related issues.[69]

After the National Institute for Defence Studies particularly stressed on the Arctic in the annual publication of the *Overview of the East Asia Strategy 2011*[70], Japan's Arctic diplomacy walks in step with it. In September 2012, the Japanese Prime Minister, Yoshihiko Noda, appealed for Russia-Japan cooperation on maritime issues, including the Arctic, during the Asia-Pacific Economic Cooperation (APEC) Summit meeting.[71] While the pattern of Japan's approach to the Arctic and the Arctic states is not dissimilar to the other two ad-hoc observer states in East Asia, the Ocean Policy Research Foundation (OPRF) in Japan especially stresses on cooperation between Russia and Japan.[72] Seemingly, it is the Russia-Japan territorial

68. Aki Tonami, and Stewart Watters, "Japan's Arctic Policy: The Sum of Many Parts", *Arctic Yearbook 2012*, p.94.
69. Ibid., pp.93-100.
70. The National Institute for Defence Studies (2011), *East Asian Strategic Review 2011*, http://www.nids.go.jp/english/publication/east-asian/e2011.html
71. Ministry of Foreign Affairs of Japan (2012), "Japan=Russia Summit Meeting on the Occasion of APEC Leader's Meeting in Vladivostok (Overview), Japan Foreign Policy Updates, Government of Japan. http://www.mofa.go.jp/announce/jfpu/2012/09/0908-03.html
72. "Developing a Japan Policy Towards the Arctic Ocean", *Conference Paper*, The Arctic Conference Japan, Ocean Policy Research Foundation, March 2012.

New Delhi's growing interest in the Arctic Ocean is a part of its large-picture security policy, independent of the Antarctic policy.

conflict over the Kuril Islands that affects access to the Sea of Okhotsk and the Bering Strait. Tokyo's keen interest in the NSR is endeavoured by the independent department of the Japan Northern Sea Route Programme (JANSROP)[73] that vindicates its perspective on maritime security to keeping the Arctic as a critical component in arguments of territorial right, based on UNCLOS and the seabed treaty in the long-term.

INDIA'S ENTRY NOTIFIED

The jigsaw on the current security architecture for the Arctic presents India with a conundrum among policy-makers and strategic thinkers as to how India's Arctic policy should be established. The Arctic has been a subject of study since the Department of Ocean Studies was established in 1981 which, in fact, highlights more of the Indian Ocean and connected regions than the Arctic itself. Even after the extension of the Arctic Ocean due to climate change, scepticism looms over India's geographical limitation to access in the NSR or the Northwest Passage of the Arctic Ocean, which might result in India's approach being deemed unsatisfactory.

However, it seems clear that New Delhi's growing interest in the Arctic Ocean is a part of its large-picture security policy, independent of the Antarctic policy. In 2007, India launched an Arctic research station, Himadri, along with other Asian giants, at Ny-Ålesund which it inherited from its Arctic research programme.[74] Himadri is under the guidance of the National Centre for Antartic and Ocean Research (NCAOR), which manages a number of polar expeditions for scientific research as well.[75] As prey to climate change, India's environmental interests cause Delhi to take a larger role in preventing the acceleration of global warming, what with the

73. Tonami, n. 68, p.94.
74. P. K. Gautam, "The Arctic as a Global Common", *IDSA Issue Brief*, September 2, 2011, p. 7.
75. "New Indian Research Station at the Arctic", *The Hindu*, July 2, 2008.

impact of the monsoons to the agriculture sector.[76]

Apparently, it is interrelated to the concern over the economic interest in the growth of the agriculture sector as well as the oil and natural gas demand, which is a decisive factor in the fulfillment of India's economic plans. According to the *World Energy Outlook* of the International Energy Agency, India is expected to be the largest oil importer before 2025[77]. New Delhi hopes to participate in active exploration and cooperation with the Arctic littoral states to access the huge deposits of oil and gas. In the same manner, India has initiated a robust and extensive approach to Russia and the Scandinavian countries.[78] India's historical engagement with Russia, such as in the Sakhalin project in 2009 seems to be helpful in extending its effort.[79] India is aware that competence in financial and technical capabilities in the energy sector calls for a greater role by the Indian public and private industry to invest in Research and Development (R&D).[80] As nearly 35 universities are involved in undertaking energy research, the Arctic Ocean is expected to be paid more and more attention.[81]

Pursuing the policy goal in the Arctic, India aims to seek observer status in cooperation with the core members of the Arctic Council.

India has established a goal of active participation in the international maritime regime, given its current status and participation in other international regimes, in general, as an active actor. Pursuing the policy goal in the Arctic, India aims to seek observer status in cooperation with the core members of the Arctic Council.

76. Sergey Luney, "India Goes to the Arctic", *Analysis*, April 2, 2012, Russian International Affairs Council, http://russiancouncil.ru/en/inner/?id_4=281
77. "FACTBOX-IEA's India Energy Outlook to 2030", *Reuters*, November 7, 2007. http://in.reuters.com/article/2007/11/07/idINIndia-30378820071107
78. "Canada to Help India Get on Arctic Council", *Hindustan Times*, January 29, 2013. http://www.hindustantimes.com/world-news/NorthAmerica/Canada-to-help-India-get-on-Arctic-Council/Article1-1003595.aspx
79. Sergey Luney, "India Goes to the Arctic", *Analysis*, April 2, 2012, Russian International Affairs Council, http://russiancouncil.ru/en/inner/?id_4=281
80. Kirti Joshi, et. al. "India's Capability and Competence in Energy Sector R&D", S&T and Industry, CAIR-National Institute of Science Technology and Development Studies, 2008, http://www.nistads.res.in/indiasnt2008/t4industry/t4ind22.htm
81. Ibid.

CONCLUSION

Presently, the Arctic invites more states whose interests encompass interlinked issues such as environmental, commercial, strategic, and legal issues. While a comprehensive and open approach to the Arctic is needed, it would be difficult to penetrate the Arctic Council that is already empowered to determine the entry of new members and the broad perspective of the legal bindings in the future. In particular, Russia, Canada, and Norway will gain more impetus owing to their geographical advantage. The growing number of players in Europe and Asia inevitably attracts competition over access by states that have investments, research capabilities and advanced technology.

In a more positive perspective, more players can take different roles regarding geographical accessibility, technological development, and security policies that do not overlap with their plans. One could say that the common general interest is to prevent environmental damage such as dumping nuclear waste in the Arctic Ocean, and to manage the natural resources for sustainable development in the Arctic. An international maritime regime for common strategic priorities only can be formulated by a larger number of stakeholders with comprehensive agendas covering various issues.

However, strategic consequences, driven by socio-economic demands in individual countries, will possibly result in unrestrained competition. The Arctic policy that began with larger players, from global power aspirants such as China, South Korea, Japan and India, in particular, is placed at the global geo-political level. Therefore, the key players are likely to plan for proportional power-sharing, not allowing the entry of new challengers. Also, their strategic needs, as envisaged by the major players, may bring in conflict into the robust bilateral or alliance-based steps in the region. Hence, from the perspective of the Asian countries, a potential conflict may be inevitable since the Arctic cooperation is to be strengthened by, and around, the Arctic Council.