



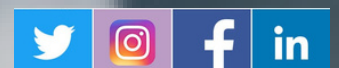
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ISSUE BRIEF

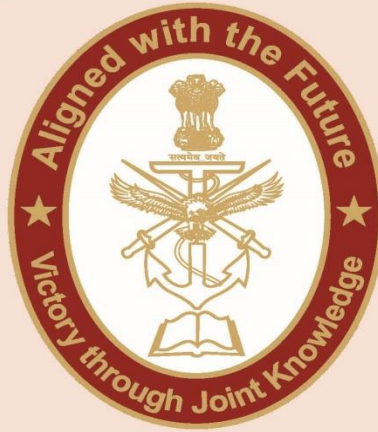
# STRATEGIC POWERPLAY IN THE ARCTIC: IMPLICATIONS FOR INDIA

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# CENTRE FOR JOINT WARFARE STUDIES



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### STRATEGIC POWERPLAY IN THE ARCTIC: IMPLICATIONS FOR INDIA



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### Abstract

Arctic exploration has dominated the international agenda for the past 20 years, piquing the interest of world leaders in politics, business, and research. The debate surrounding 'an end to the **Arctic exceptionalism**' emerged from the scope of the security threat in the region. India already maintains a strong presence in the South Pole for the past twenty-five years, hence India is now in capacity to participate actively in a bi-hemispheric approach to Polar Sciences. This issue brief will examine the geo-strategic relevance of Indian presence in the Arctic. India's Arctic policy, released in March 2022, is extensive, but it requires a committed and coordinated effort to put it into action. This issue brief also makes policy recommendations for India in the backdrop of the ongoing Ukraine-Russia conflict, analysing all the six pillars and suggesting a future roadmap.

### Introduction

Many Asian countries have expressed an interest in exploring the Arctic. Out of 8 permanent members and 19 observers, three Asian observers to the council (China, South Korea, and Japan) have announced their Arctic policy initiatives in the past. India has maintained that all anthropogenic involvement in the Polar regions should be ecological, accountable, transparent, and guided by reverence for international norms. The war in Ukraine has raised the geopolitical stakes in the Arctic, causing temporary halt in Arctic scientific exploration and research cooperation.<sup>1</sup>

The dispute has resulted in an increase in defence 'assets in the Polar region. According to the Royal Norwegian Navy reports<sup>2</sup> (March 2023), about 20000 personnel with 50 aircraft and 40 ships from nine nationalities are engaged in "Joint Viking" and "Joint Warrior"<sup>3</sup>. The aim is to guarantee that NATO's military is prepared for combat<sup>4</sup> while safeguarding its Arctic assets. Russia has indeed made remarkable advanced in conventional capabilities with combination of bases, airfields, and large-scale radar installations that are positioned in this region<sup>5</sup>. What is fascinating is that China's take on the Arctic Ocean is strikingly like the West's stance on the contested South China Sea.<sup>6</sup> It has also sparked concerns about "vicious cycle"<sup>7</sup> as a general problem. Heat waves, water resources, harvests, and food production are currently being harmed by the arctic amplification.<sup>8</sup> The destabilising effects of these essential life-sustaining resources on society would raise the need for military and civil authorities for humanitarian and disaster relief.

With the melting of Arctic caps, newer opportunities for shipping, tourism, and resource exploration have arisen.<sup>9</sup> However, the increased human activity in the area necessitates a considerable rise in operational capabilities to protect legitimate trade and travel and avert the profiteering of newer routes for illicit trafficking and smuggling.<sup>10</sup>

International diplomacy is the key reason for India's involvement in the issues related to polar regions. The jigsaw on the current security architecture in Arctic presents India with a conundrum among policymakers and strategic thinkers, highlighting similarities between Himalayas, Indian Ocean and connected regions than the Arctic itself.<sup>11</sup> Science and research, climate and environmental protection, economic and human development, transportation and connectivity, governance and international collaboration, and national capacity building are the six pillars of our Arctic policy. India's arctic policy was put together based on extensive discussions with all parties. The principles outlined in the policy are aligned with the United Nations' sustainable development goals.<sup>12</sup>

### ***Geostrategic Relevance for Arctic in context of the Indian Sub-continent:***

- A. India's association with the Arctic is regular and multifaceted and is subjected to regional laws and international conventions such as the Svalbard Treaty of 1920 and the 1982 United Nations Convention on the Law of the Sea (UNCLOS)<sup>13</sup>. However, India has never focused on commercially exploiting the Arctic in general, although there is recent criticism that Svalbard<sup>14</sup> is utilised by non-arctic states to further their Arctic ambitions.<sup>15</sup>
- B. Geographically speaking, India may not have a common interest in the Northern Sea Route (NSR)<sup>16</sup> but its policy recognises the possibilities and its potential as an alternative to the conventional Suez Canal route and Malacca Strait. As the world's third-largest sea-faring economy, India intends to participate in ecological surveillance and oversight, security, and capability building in the

permafrost region. The Arctic's ice-free environment would make it easier to develop new sea lanes, which would reduce costs and alter global trade.

- C. The Barents-Kara Seas and the Pacific section are two crucial Arctic zones that impacts Europe, Asia, and North America. Possibilities regarding cold abnormalities could originate from warm anomalies in these two areas. Moreover, the association between the winter atmospheric circulation anomaly and Arctic warm anomalies is stronger at mid and low latitudes than at high latitudes.
- D. Acknowledging and emphasising the need to study the linkages between the Arctic and the Himalayas, India cited the IPCC's Special Report on Ocean and Cryosphere (2019) from a climate change perspective, paying particular attention to the issue of global warming. It showcased the striking similarity nexus between the Tibetan plateau and the melting ice caps in the Arctic. The Third Pole<sup>17</sup>, or Hindu Kush Himalaya (HKH) includes parts of India, China, Pakistan, Afghanistan, Nepal, Bhutan, Myanmar, and Bangladesh. It is the most critical " world's water tower" because it is the source of ten of Asia's major rivers and has the maximum snow and ice cover outside of the Arctic and Antarctica. The entire Indo-Gangetic valley could be drowned due to increase in the temperature, which will result in severe flooding and landslides along the foothills of Himalayas.
- E. Arguably more than 3 billion population who inhabit the region and its downstream areas depend on these rivers collectively for their water supply, agricultural, energy, commercial, and sanitation needs. Further in India, the yields of staple spring crops, cultivated throughout the Northern plains, like rice, pulses, and soybeans, contribute to almost 50% of the nation's food supply. This relies significantly on glacial water sources. Hence, in a fast-changing global climate, India, with a population of more than 1 billion, **cannot afford to endanger its food, water, and economic stability.**<sup>18</sup>

### ***India's Arctic Policy & Policies of the Other Major Stakeholders in the Region:***

The temperatures are expected to rise 4°C by 2050 in the Arctic<sup>19</sup>. Attempting to completely eradicate greenhouse gases as part of COP27 agenda<sup>20</sup>, the UNFCCC has stressed on maintenance of the pristine ecosystem of the Arctic as part of "global commons". The Arctic Council <sup>21</sup>is the premier intergovernmental organisation that fosters collaboration, synchronisation, and engagement among Arctic States, Arctic Indigenous Peoples, and other Arctic dwellers on shared Arctic challenges, particularly those related to the region's environmental conservation and ecological sustainability. The policy initiatives undertaken by the major stakeholders in the region maybe listed as follows:

- US: To compete in the Arctic rush, the US Arctic Policy concentrates on greater and profound involvement in the Arctic by developing a national identity and strengthening US leadership; strive for sustainable management of the Arctic Region and enhance global cooperation.<sup>22</sup>
- Canada: Before to the Cold War, Canada's orientation in the Arctic was less militaristic and more peaceful, but due to climatic change, expectations of resource extraction rights, the global maritime order, and defence strategy, it is continually focused in these four areas: Arctic sovereignty in action, preserving ecological heritage, fostering social and economic growth, and decentralizing and enhancing Northern governance.<sup>23</sup>
- Russia: Russia's Arctic strategy indicates a strengthening of its power following the Cold War (NATO). The goals of Russia's national security strategy are outlined by a focus on physical control over the goal and the necessary steps in accordance with the international framework in collaboration with the G-8, G-20, RIC (Russia, India, China), and BRICS (Brazil, Russia, India, China, South Africa).
- Norway: Norway's arctic policy is adhering to cooperation on a global scale, business expansion, knowledge building and exchange capacity, Infrastructure and environmental protection and emergency preparation.<sup>24</sup>
- Sweden: The Swedish take on the Arctic region and sets out the policy on the course of work under six thematic areas: international collaboration; international cooperation, security and stability, climate and the environment, polar research, sustainable economic development, and business sector interests, and ensuring good living circumstances.<sup>25</sup>
- Finland: Finland's policy encourages development and activities to increase regional viability while considering the local ecosystem across these four major topics: an Arctic nation, understanding of the Arctic, implications for sustainable growth as well as the environment and collaboration on a global scale.<sup>26</sup>
- Iceland: Regarding climate change, environmental concerns, natural resources, navigation, and socioeconomic development, Iceland's policy aims to protect Icelandic interests.<sup>27</sup> It further aims to improve relations and collaboration with other States and stakeholders on regional issues.<sup>28</sup>
- Denmark: Denmark's shared goal is to develop the Arctic and its capabilities to support inclusive development and steady growth that support Arctic residents and work in tandem with initiatives aimed at safeguarding the region's ecology.<sup>29</sup>

- South Korea: South Korea's Arctic Master Plan's strengthens collaboration, setting up the ground framework for polar scientific research, and generation of new business opportunities between Arctic governments and pertinent international organisations in science, technology, and the economy to contribute to the long-term sustainability of the Arctic<sup>30</sup>.
- China: The fact that China is becoming more interested in the Arctic demonstrates that, in addition to scientific research, the country's policy direction tends to focus on three key issues: energy security, maritime security (primarily in relation to sea-based transportation), and participation in the creation of an international order, with China playing a dominant role in world politics. Considering that China is expected to account for the greatest proportion of the world's energy demand by 2035.<sup>31</sup>
- Japan: Japan's Arctic Policy aims to fully set Japan's scientific and technological capabilities possible. Taking into account the Arctic's fragile ecosystem, which has a limited capacity for restoration it endorses the rule of law to foster peaceful international collaboration, respect the indigenous peoples' right to maintain their customary socio-economic structures, pay close consideration to Arctic safety procedures, strive for a stable economy and society in the face of changing climates and the environment, and look into the potential financial benefits of using the Arctic Sea Route and of developing resources.<sup>32</sup>
- Singapore: Singapore has never conducted arctic research and isn't a party to the Svalbard Treaty. It has no investments in hydrocarbon reserves, and it has no strategic interest in the Arctic. Anthropogenic global warming and governance in the Arctic are its main concerns.
- India: India's Arctic Policy was published while Russia was still the Arctic Council's chairman. Although it is not included in the Arctic policy, it cannot afford to overlook China's projection of itself as a "Near Arctic state" and its ambition in establishing the Polar Silk Road. It is implemented through a systematic implementation strategy, and an inter-ministerial-empowered Arctic Policy Committee that investigates the Arctic Policy's appropriate governance and performance evaluation. A timely and increased yearly funding allocation is also required to enable execution.<sup>33</sup>

With Arctic policies of member states and observers being effectively applauded and received, the legitimate assertions over natural resources surrounding the North Pole are truly a major element to transform both climate and maritime security infrastructure. Arctic coasts were made accessible to oil drilling due to global warming. Methane emissions from oil drilling in the area may be challenging to eliminate. It can be expensive to liquidise the methane or transport it via pipeline. Further, rapidly melting sea ice has made it simpler for major oil companies of the stakeholders to use any

opportunity to drill through the heart of the Arctic and recover the 90 million barrels of oil that are believed to be submerged there.

When the first offshore oil field was discovered at Middle Ground Shoal in Cook Inlet, off the coast of Alaska, Shell Oil is the first corporation to establish operations in the area. Others did the same. Alaska, Canada, Norway, and Russia are currently the main countries producing Arctic oil and gas. This allowed other players to begin operating in the Alaskan North Slope, the Yamburg gas field in Russia, the Mackenzie Delta region in Canada, and Norway. Off the coasts of Norway (in the Barents Sea and North Sea), Greenland (in the eastern waters shared with Canada), Alaska (in the Beaufort Sea), and Canada, oil and natural gas exploration is still being done. The first commercial offshore oil drilling in the Arctic by Russia is taking place at the Prirazlomnaya platform in the Pechora Sea. But environmentalists from across the world have criticised all of these measures.

Presently, in Russia, only legal firms with a subsurface usage licence obtained through an auction or tender are permitted to mine gold. The new law will be tested for the first three years in the Far Eastern Federal District and the Arctic's onshore regions before being implemented throughout all of Russia's federal districts. The most recent measure proposes to create an online platform via which people living in the Far East and the Arctic can register as independent contractors and receive free, three-year access to artisanal gold mining plots of up to 10 hectares.<sup>34</sup>

The Arctic town of Kiruna that Swedish state operator LKAB has been exploiting for over a century supplies 80% of the iron ore produced in the EU. Over 45% of the Sweden's electricity is produced by hydroelectricity, with most of the remaining energy coming from nuclear and wind sources. Also, it is affordable, particularly in the Arctic, where there are several mines. Since Sweden produces most of its hydroelectric electricity in the north and has few grid connections to the south, local costs are kept low.<sup>35</sup>

Despite USA's Red Dog mine (zinc) in Alaska, Diavik Diamond Mine in Northwest Territories, Canada, and Sveagruva in Svalbard, there is a shift in the approach to Biden administration through the ongoing war in Ukraine. In response to warnings from the International Energy Agency, Biden is extending an Obama-era ban on new oil and gas leasing in US Arctic waters and will write new regulations prohibiting the sale of new drilling rights across much of the National Petroleum Reserve-Alaska, where ConocoPhillips' 600 million-barrel Willow venture is located.<sup>36</sup>

### ***Engagements & Cooperation between India and the other stakeholders in governance and maintenance of the Arctic***

Arctic governance is important in the pursuit of energy security and national prosperity. The main argument in favour is the abundance of Arctic resources.<sup>37</sup> There is an abundance of rare earth minerals, in addition to prospective locations for wind and tidal energy sources. The urge and necessity to acquire these assets grows along with the

global demand for energy, prompting policies to shape in by many nations and giving rise to what is known as the Arctic gold rush.<sup>38</sup> India has multiple active agreements as also participates in a range of joint initiatives with several Arctic states. India is a participant of 5 working groups of the Arctic Council.<sup>39</sup>

- In 2007, India launched an Arctic research station, Himadri, at Ny-Ålesund which it inherited from its Arctic research programme. Himadri is under the guidance of the National Centre for Antarctic and Ocean Research (NCAOR), which manages several polar expeditions for scientific research as well. 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 fulfilment 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 rising from the current 5.05 million barrels per day to 10 million barrels per day by 2030. India has initiated a robust and extensive approach to Russia and the Scandinavian countries for the same. India's historical engagement with Russia, such as in the Sakhalin project in 2009 seems to be helpful in extending its effort. 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). As nearly 35 universities are involved in undertaking energy research, the Arctic Ocean is expected to be paid more and more attention.
- The Ministry for Development of the Russian Far East and NITI Aayog signed a MoU for bilateral trade and cooperation in the arctic between 2020 to 2025<sup>40</sup>; to promote sustainable development, both parties would host an annual business dialogue. They intend to increase their bilateral trade by US \$5 billion annually, reaching US \$30 billion by 2025. (Russia Briefing, 2021).

Suggestions for the India-Russia pipeline was proposed at the 8th BRICS Summit 2016<sup>41</sup>. A collaborative investigation on the pipeline connecting Siberia and India was on the agenda has the potential to transform the game. At the SCO Summit 2022, Power of Siberia 2 was under discussion under which 38 billion cubic metres of gas from Russia would reportedly be pumped to India.<sup>42</sup> The issue has again been discussed during Xi's visit to Russia<sup>43</sup>.

India also commits to research on Arctic Ecosystem values, and marine protected areas and contributes towards environmental management in the Arctic and engages with the Emergency preparedness and response working group of the Arctic Council to contribute toward the environmental emergencies in the Arctic.<sup>44</sup> India is supporting Arctic Contaminants Action Program (ACAP) with data on atmospheric aerosols and emerging contaminants from IndArc and Gruevedat observatory. India is working with Arctic Monitoring and Assessment Programme (AMAP)<sup>45</sup> in the monitoring of glaciers, Arctic Precipitation, and climate change studies.



## Implications for India - Rare Earth resources, Environmental & Strategic

The Arctic contains 13% of the world's undiscovered oil resources (about 90 billion barrels) and 30% of the world's undiscovered natural gas resources. Strategic metal deposits<sup>46</sup> (gold, silver, copper, titanium, iron, graphite, lead, nickel, coal, uranium, and so on) have been discovered in the Arctic zone. India's interest in the region has been mainly in conducting scientific research, especially from a climate change perspective. Arctic's rare earth elements are crucial for India to produce the essential raw materials required to switch to a greener economy. One of the critical agendas of the G20 task force 'Refuelling Growth: Clean Energy and Green Transitions'<sup>47</sup> is resources, market expansion, and energy. These minerals are required in the manufacturing of high-tech goods like nuclear energy and cell phones, which can support India's "Make in India" program.

Acting in its national interests, India has utilized the opportunity of securing oil from Russia at cheaper rates during the ongoing conflict at Ukraine. As it does have a growing energy demand, natural gas is a cleaner fuel which aligns with India's environmental stewardship in G20 while diversifying its energy imports. Further, Indian companies have acquired equity in Russian 'Tass-Yuryakh Neftegazodobycha' and 'Vankorneft' projects.

### Relevance of India's Arctic Policy

It takes a systematic approach to tackle the problems confronting rapidly evolving Polar regions. The former **Icelandic President Olafur Ragnar Grimsson**, "*the prospect for India would be, to a significant extent, ascertained by the Arctic, and the fate of the Arctic will also be determined by what happens in India and other Asian countries*"<sup>48</sup>; in an interwoven world, synergy and sustainable development will undoubtedly benefit either of those. Hence our strategy for tackling Arctic as a region is focused not only on the scientific investigation but also on multilateralism in the business sectors, the 2030 agenda, establishing people-to-people contact, capacity development in legal, social, governance, and institutional framework, and more.

### Way Forward for India's Arctic Policy

1. Since India is planning for achieving green energy by 2025<sup>49</sup>, another glimpse into the future of the region's immense natural resources has been opened by the recent discovery of a significant rare earth metal deposit in Northern Sweden. It will also probably be a significant source of the materials required for the global "green transition," and demand for these resources is growing.
2. Indian firms are anticipated to gain a foothold in the region and access to clean, environmentally friendly technologies according to the Policy's economic goal. Some of the arctic council members like Finland is looking for possible partners to collaborate on Arctic farming, life-cycle assessment techniques and their impact on the crops. <sup>50</sup>India is already choosing sustainable practices to ensure

ecological balance and food security. As LiFE is also one of the key areas in G20, India is looking at, so a possible collaboration can be explored.

3. The vast geographical distances in the Arctic can be crossed thanks to India's capabilities in the e-commerce and space sectors. An expanded and multifaceted interaction with the Arctic region will result in the development of indigenous Arctic capacities. With the organisation of programmes, seminars, and events in India and the Arctic, the Policy is also anticipated to increase awareness of the Arctic in India and vice versa. Further India can collaborate in infrastructural development of the region in close partnership with the member states.
4. Balancing out the national interest, India's engagement in the Arctic as part of the global commons is per "its civilizational ideal Vasudhaiva Kutumbakam"—The World Is Just One Family. The theme of India's G20 presidency captures the notion that Prime Minister Narendra Modi stressed: "climate change, can be fixed not by attempting to fight each other, but only through collaborative approach." This idea also highlights the interdependency of living organisms. India can use the G20 platform to bring the opposing parties together to resume the scientific cooperation in the region.
5. The policy explicitly explains its interest in the conservation of the marine resources in the Arctic region, hence if India is a signatory to the CAOFA (High seas fisheries in the Central Arctic Ocean) treaty it can engage in a Joint scientific research program and participate in the regional governance of the CAO region. It will also create more chances for bilateral cooperation between India and other stakeholders.
6. As per FY2023-24 Union Budget, PACER program is allocated INR146 crores which is less than the budget allocation for FY 2022-23. Further budget allocated for research activities in the Polar and Southern Ocean realms remained same since last financial year owing to only INR 26 crores. On evaluation, it is due to lack of infrastructure and recruitment within the Arctic committee which should be accelerated more for a proactive engagement.
7. The Arctic has relatively poor transport connectivity, and India seems to be doing more research in this area. The International North-South Transport Corridor's route to the Arctic has been mostly outlined in India's Arctic Policy. Incorporation of INSTC with Baltic-Adriatic TEN-T Core Network Corridor, North Sea-Baltic TEN-T Core Network Corridor, and the Scandinavian-Mediterranean TEN-T Core Network Corridor will be establishing a steady mobility accessibility for India.
8. There is an immediate need to obtain ice-class Polar Research Vessels and to enhance India's household ability to construct such vessels through initiatives

such as 'Atmanirbhar Bharat' (Self-Reliant India) and 'Make in India,' to put India as par with other Asian observer states such as China, Singapore, South Korea, and Japan.

9. A non-profit organisation called Ice911 proposes a potential remedy to this terrifying vicious cycle. Millions of hollow, glass nanoparticles would be spread across important Arctic regions, creating a shield that deflect light and protects ice sheets.<sup>51</sup> Since the cost of making such particles is high and also the arctic cooperation is ceased due to the ongoing war, India can leverage its expertise in Himalayan glacial studies to partner with arctic stakeholders in developing similar models.
10. Nuclear waste management in the Arctic is a challenge. Environmentalists concerned about the effects due to contamination of radioactive materials created by scientific exploration. Drawing similar models from USA's repository in Yucca Mountain and Finland's Onkalo facility, India should also start taking proactive measures in the same direction.<sup>52</sup>

## **Conclusion**

India's relationship with the Arctic has a long history, and it will continue to develop as opportunities arise from nature's ongoing transformations. India, an observer state, has the power to have a big impact on Arctic States policy because of its expanding economy and huge potential for investment. Research on global warming, monsoon patterns, marine ecosystem, and environmental sustainability have all benefited from India's contributions to science. Due to border difficulties, India is facing the challenges of security. The North Pole is becoming more and more important in modern times because of climate change. India needs to keep its Arctic Policy current and up to date to adapt to a changing world and help establish a new global order.

## **DISCLAIMER**

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