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Issue Brief

India's Arctic Policy: Building a Partnership for Sustainable Development

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S*ummary*

The recently released India's Arctic Policy fulfils a longstanding need for a clear articulation on a rapidly transforming Arctic, which is warming three times faster than the rest of the world. This is leading to major transformation of global shipping routes and increased availability of mineral and hydrocarbon resources, both of which are likely to have an immense impact on the geo-political and resources landscape of the world, including India, in the coming years. The Policy will possibly have a multiplier effect towards enhancing India's engagement in all the relevant aspects of the Arctic, viz. scientific research, climate change and environment; economic and human resources; and geopolitical and strategic. The Policy is deftly dovetailed with the broader policy framework of the Government of India. Above all, it is inclusive and participative and in keeping with India's civilisational ethos.

Introduction

India’s Arctic Policy, released by the Government of India on 17 March 2022,¹ fulfils a longstanding need for a clear articulation on a rapidly transforming Arctic, which is warming three times faster than the rest of the world.² This is leading to major transformation of global shipping routes and increased availability of mineral and hydrocarbon resources, both of which are likely to have an immense impact on the geo-political and resources landscape of the world, including India, in the coming years.

This Issue Brief examines the need for an Arctic Policy for India; looks into the gaps in India’s present engagement in the Arctic; and analyses the features of the India’s Arctic Policy released recently.

Need for an Arctic Policy

The relevance of Arctic for India can be broadly explained under three categories: (a) Scientific Research, Climate Change and Environment; (b) Economic and Human Resources; and (c) Geopolitical and Strategic, which are discussed in detail in the following sections.

(A) Scientific Research, Climate Change and Environment

Monsoons: The changes occurring in the Arctic are yet to be understood fully, but it is clear that they have been impacting global weather, climate and ecosystems including the monsoons in India.³ During the monsoons, India receives over 70 per cent of its annual precipitation. India’s agriculture, which is the primary source of livelihood for about 58 per cent of India’s population and contributes around 20 per cent to the GDP,⁴ is directly dependent on monsoons.

Rising Sea Level: From 1971 till 2019, the Arctic snow cover and the extent of Arctic sea ice have shrunk by 21 per cent and 43 per cent respectively, and all regions of the Arctic experienced net loss of land ice.⁵ This land ice loss in the Arctic is a major

¹ [“India’s Arctic Policy: Building a Partnership for Sustainable Development”](#), Ministry of Earth Sciences, Government of India, 2022.

² [“Life in One of the Fastest-Warming Places on Earth”](#), Climate, Arctic Monitoring and Assessment Programme, Arctic Council, 10 May 2021.

³ [“Arctic Climate Change Update 2021: Key Trends and Impacts”](#), Arctic Monitoring and Assessment Programme (AMAP), Arctic Council.

⁴ [“Contribution of Agriculture Sector towards GDP”](#), Press Information Bureau, Ministry of Agriculture and Farmers Welfare, Government of India, 3 August 2021.

⁵ [“Life in One of the Fastest-Warming Places on Earth”](#), No. 2.

contributor to global sea-level rise⁶ and it can have a significant impact on India, especially over its 1,300 island territories and maritime features.⁷

Himalayas: The Arctic and the Himalayas, though geographically distant, are interconnected and share similar concerns. The Arctic meltdown is helping the scientific community to better understand the glacial melt in the Himalayas, which has often been referred to as the ‘third pole’ and has the largest freshwater reserves after the North and South poles. They are also the source of main rivers of India, including the Ganga and Brahmaputra, the basins of which support a population of about 600 million and 177 million respectively⁸ and generate over 40 per cent of India’s GDP.⁹ The study of Arctic is therefore critical to Indian scientists.

(B) Economic and Human Resources

Mineral Resources and Hydrocarbons: Arctic region has rich deposits of coal, gypsum and diamonds and also substantial reserves of zinc, lead, placer gold and quartz.¹⁰ Greenland alone possesses about a quarter of world’s rare earth reserves.¹¹ The Arctic also contains a wealth of hydrocarbon resources. A US Geological Survey (USGS) appraisal of the Arctic estimated that the region “may constitute the geographically largest unexplored prospective area for petroleum remaining on Earth”¹² amounting to 30 per cent of the world’s undiscovered natural gas and 13 per cent of the world’s undiscovered oil.¹³ With the increasing ice-melt, these resources are becoming more accessible and feasible for extraction.

India is the third-largest energy-consuming country in the world, the third-largest oil importer (83 per cent) and the fourth-largest importer of gas which caters to almost half of the total gas consumption.¹⁴ India’s gas mix in the energy basket amounts to only 6 per cent, which is among the lowest in the world, compared to the world average of 24 per cent.¹⁵ This is targeted to be scaled up to 15 per cent by

⁶ [“Arctic Climate Change Update 2021: Key Trends and Impacts”](#), No. 3.

⁷ [“India’s Arctic Policy: Building a Partnership for Sustainable Development”](#), No. 1, Article 1.1.3.

⁸ [“Brahmaputra Basin”](#), Ministry of Water Resources, Government of India, March 2014, p. 4.

⁹ [“Assessment of Water Quality and Sediment to understand the Special Properties of River Ganga”](#), National Mission for Clean Ganga, NMCGNEERI Ganga Report, p. 15.

¹⁰ Rognvald Boyd, Terje Bjerkgård, Bobo Nordahl and Henrik Schiellerup, eds, [“Mineral Resources in the Arctic: An Introduction”](#), Geological Survey of Norway, 2016.

¹¹ Ibid.

¹² [“Circum-Arctic Resource Appraisal: Estimates of Undiscovered Oil and Gas North of the Arctic Circle”](#), USGS, 2008.

¹³ Ibid.

¹⁴ [“India Energy Outlook 2021, World Energy Outlook Special Report”](#), Flagship report, International Energy Agency, February 2021.

¹⁵ Ibid.

2030.¹⁶ Arctic can therefore potentially address India’s energy security needs and deficiency of strategic and rare earth minerals.

(C) Geopolitical and Strategic

China: The melting Arctic ice is also raising the geopolitical temperatures to levels not seen since the Cold War. In January 2018, China’s White Paper on Arctic policy called itself a ‘Near-Arctic State’. It also referred to trans-Arctic shipping routes as the Polar Silk Road, identifying it as a third transportation corridor for the Belt and Road Initiative (BRI).¹⁷ China’s assertion has been highly contested by the US,¹⁸ which has demolished China’s *locus standi* in the Arctic declaring that “there are only Arctic States and Non-Arctic States. No third category exists, and claiming otherwise entitles China to exactly nothing”.¹⁹ China has made significant investments in the Arctic, primarily in infrastructure and energy sectors, to the tune of US\$ 90 billion, between 2012 and 2017,²⁰ and is the only country apart from Russia, to be constructing nuclear ice-breakers.

Russia: Russia accounts for almost half of the Arctic in terms of area, coastline, population, mineral wealth and hydrocarbons. Even though the Russian Arctic houses just 1.5 per cent of Russia’s population, its contribution to the country’s GDP is 15 per cent, and 20 per cent to its exports.²¹ Russia could be said to have the most at stake in the Arctic in absolute terms. Facing sanctions, Russia is soliciting funding and collaboration for developing infrastructure in the Arctic and the Northern Sea Route (NSR). Russia considers parts of NSR to be internal waters, regulates transit of merchant ships and restricts passage of foreign warships, which is being opposed by the US.

The opening of the shipping routes and possibilities of increased resource extraction is leading to the big three—US, China and Russia—and NATO, jockeying for position and influence in the region. In 2018, Russia and NATO conducted Exercise Vostok²² and Trident Juncture²³ respectively, their largest since the Cold War. While the

¹⁶ Ibid.

¹⁷ [“Full Text: China’s Arctic Policy”](#), The State Council Information Office of the People’s Republic of China, January 2018.

¹⁸ [“Looking North: Sharpening America’s Arctic Focus”](#), Speech, Michael R. Pompeo, Secretary of State, Rovaniemi, Finland, 6 May 2019.

¹⁹ Ibid.

²⁰ Ibid.

²¹ [“The Russian Federation”](#), Arctic Council.

²² Nivedita Kapoor, [“Russia and the Future of the Arctic”](#), ORF Occasional Paper No. 336, 28 October 2021.

²³ [“Russia’s Vostok 2018 War Games”](#), *Strategic Comments*, Vol. 24, No. 8, 2018, pp. iv–vi.

²³ [“Trident Juncture 2018”](#), North Atlantic Treaty Organization, 2018.

former witnessed participation by China, the latter comprised all 29 NATO members (at that time) plus Sweden and Finland and included the first deployment of a US Navy aircraft carrier above the Arctic Circle since 1991.²⁴ In May 2018, US re-established the 2nd Fleet, which was created in 1950 (and disestablished in September 2011²⁵) for countering Soviet naval forces in the North Atlantic.²⁶

Boundary Disputes: Apart from the strategic contestation, there are unresolved boundaries between the Arctic States.²⁷ For instance, US has continental shelf overlap with Canada and Russia, while Russia and Canada themselves have differing continental shelf claims.²⁸ US and Canada have not yet delimited their maritime boundaries and they also have differences over North West Passage, part of which Canada considers (like Russia for NSR) as its internal waters.²⁹ Also, Canada and Denmark have a dispute over Hans Island.³⁰

Gaps in India’s Approach

Lack of an Articulated Policy: Even though the Ministry of External Affairs (MEA) of the Government of India has listed India’s interests in the Arctic to be “scientific, environmental, commercial as well as strategic”³¹, till recently India was one among the four of the 13 Observer nations of the Arctic Council that did not have a nationally articulated Arctic Policy.

Scientific Orientation: India needs to go beyond the purely scientific approach in the Arctic. In keeping with its growing stature and consequent say in world affairs, India ought to be better equipped to understand the dynamics of the Arctic geopolitics and governance.

Inadequate Funding: Presently, India’s polar research, for Antarctic, Arctic, Southern Ocean and Himalayas, is budgeted under the umbrella Polar Science and Cryosphere (PACER) programme of the Ministry of Earth Sciences (MoES).³² The total financial allocation (BE) under the PACER programme for the financial years 2018–

²⁴ [“NATO Holds its Biggest Exercises Since the Cold War”](#), *The Economist*, 8 November 2018.

²⁵ Sam LaGrone, [“Navy Reestablishes U.S. 2nd Fleet to Face Russian Threat; Plan Calls for 250 Person Command in Norfolk”](#), *USNI News*, 4 May 2018.

²⁶ Ibid.

²⁷ Isabelle Wallace, [“Territorial Claims in the Arctic Circle: An Explainer”](#), *The Observer*, 25 September 2020.

²⁸ Ibid.

²⁹ Ibid.

³⁰ Ibid.

³¹ [“India and the Arctic”](#), Ministry of External Affairs, Government of India, 10 June 2013.

³² [“PACER”](#), Ministry of Earth Sciences, Government of India; [“India’s Arctic Policy: Building a Partnership for Sustainable Development”](#), No. 1.

19, 2019–20 and 2020–21 was Rs 365 crores.³³ Considering that India’s Antarctic Programme is about five times bigger³⁴ than its Arctic programme, it is estimated that allocations for the Arctic are nearing Rs 10–15 crores per year.

Polar Research Vessel (PRV): The lack of a dedicated PRV is considered to be a serious impediment in the growth of India’s polar activities. On 29 October 2014, India’s Cabinet Committee on Economic Affairs, had approved the acquisition of a PRV at a cost of Rs 1,051.13 crore within 34 months.³⁵ The vessel is yet to see the light of the day.³⁶

The strategic importance of India’s presence in the Arctic, and the impact of scientific research carried out there, for the nation, has been acknowledged by the Parliamentary Standing Committee on Science and Technology, Environment, Forests and Climate, in 2021.³⁷ It also noted China’s investment in these regions³⁸ and asked the MoES to “prepare a realistic plan for its expansion in the next five years, including capital expenditure for the acquisition of polar research vessel”.³⁹

Whole-of-Government Focus: Presently, the National Centre for Polar and Ocean Research (NCPOR), under the MoES, is the nodal agency for India’s polar research programme, which includes Arctic studies. The MEA provides the external interface to the Arctic Council through the United Nations Economic & Social (UNES) Division. However, the eight countries of the Arctic Council are divided between the Americas, Eurasia and Central Europe Divisions⁴⁰, possibly preventing a region-wide focus to the fast-changing geo-physical and geopolitical Arctic landscape. Further, there is no nodal body to coordinate all the activities of the Government of India relating to the Arctic region.

Awareness and Capacity: Arctic has largely been ignored in India on the ground that it is far away and does not have a direct impact on India. This has resulted in a lack of national capacity on Arctic issues. As Arctic opens up, India needs to expand domestic capability and capacity by building a wide-ranging institutional base on

³³ [“Demands for Grants \(2021-2022\) of the Ministry of Earth Sciences \(Demand No. 23\)”](#), Report No. 347, Rajya Sabha, Parliament of India, 8 March 2021.

³⁴ India has launched 40 expeditions to Antarctica.

³⁵ [“Cabinet Decisions-Chronological Since 27.05.2014”](#), Press Information Bureau, Cabinet, Government of India, 31 December 2016.

³⁶ [“PACER”](#), Ministry of Earth Sciences, Government of India.

³⁷ [“Action Taken by the Government on the Recommendations/Observations contained in the Three Hundred Forty Seventh Report of the Department-related Parliamentary Standing Committee on Science and Technology, Environment, Forests and Climate Change on the Demands for Grants \(2021-22\) of the Ministry of Earth Sciences”](#), Report No. 357, Rajya Sabha, Parliament of India, 1 December 2021.

³⁸ Ibid.

³⁹ Ibid.

⁴⁰ [“About Us”](#), Ministry of External Affairs, Government of India.

Arctic maritime, legal, environmental, social, policy and governance issues. This can only happen through introduction of Arctic-related curriculum in our education system at all levels. India’s engagement with the Arctic needs to be built on sound augmentation of its domestic capacity.

India’s Arctic Policy

India’s Arctic policy titled “*India’s Arctic Policy: Building a Partnership for Sustainable Development*” follows the draft which was released for public feedback on 31 December 2020.⁴¹ Consisting of 24 pages, the Policy is divided into eight chapters based on six pillars. A Hindi version of the Policy has also been released simultaneously, which will ensure a wider reach and dissemination of India’s Arctic intentions. The six pillars of the Policy⁴² are as follows.

- Science and Research
- Economic and Human Development Cooperation
- Climate and Environmental Protection
- Transportation and Connectivity
- Governance and International Cooperation
- National Capacity Building

Does India’s Arctic Policy Address the Gaps?

Scientific Orientation: India’s Arctic Policy has gone beyond the hithertofore purely scientific approach. While the primary focus is still scientific, the six pillars address all the aspects of Arctic relevant to India, including climate change and environment, economic and human resources and geopolitical and strategic aspects. This would likely make India’s engagement with the Arctic more broad-based and enable a holistic approach.

Funding: The Policy declares that its implementation will be based on allocation of requisite resources.⁴³ With the enhancement of a multidisciplinary approach to the

⁴¹ A draft copy of 'India's Arctic Policy' had been hosted on URL <https://arcticpolicyindia.nic.in> for public feedback at <https://twitter.com/CaptDKS/status/1344628705985925131>

⁴² “**India’s Arctic Policy: Building a Partnership for Sustainable Development**”, No. 1, Article 1.4.

⁴³ “**India’s Arctic Policy: Building a Partnership for Sustainable Development**”, No. 1, Article 8.0.3.

Arctic, it is hoped that budgetary support to India’s scientific Arctic endeavours will be substantially augmented.

Polar Research Vessel: The intent articulated in the Arctic Policy of acquiring a dedicated ice-class Polar Research Vessel will hasten the process and provide impetus to India’s Arctic Programme.

Whole-of-Government Focus: The objectives outlined in India’s Arctic Policy are to be implemented through an Action Plan and a governance and review mechanism consisting of an inter-ministerial Empowered Arctic Policy Group (EAPG). The Policy further states that implementation will be based on timelines and prioritisation of activities, involving all stakeholders including academia, research community, business and industry.⁴⁴ This mechanism is likely to enable better analysis, prediction and coordinated approach in the Government of India, lend policy coherence to the region and will result in better realisation of India’s strategic, military and economic interests.

Awareness and Capacity: In India’s engagement with the Arctic, the Policy declares to develop a robust human, institutional and financial base in keeping with the philosophy of ‘Aatmanirbhar Bharat’. The Policy also seeks to expand the capacity and awareness of Arctic-related scientific research in the country, and widen the pool of experts in sectors such as mineral, oil and gas exploration, blue-bio economy and tourism relevant to the Arctic. In the maritime domain, the Policy aims to strengthen training of seafarers in polar/ice navigation, build region-specific hydrographic capacity, build indigenous shipbuilding capacity of ice class standards, and expand India’s trained manpower in maritime insurance, chartering, arbitration and brokerage. It also targets building of wide-ranging institutional capacity on the study of Arctic maritime, legal, environmental, social, policy and governance issues, including application of UNCLOS (United Nations Convention on the Law of the Sea) and other Treaties governing the Arctic region. It is hoped that India’s Arctic Policy will promote a larger pool of experts in the government as well as academia and lead to better awareness of the Arctic in India.

Other Aspects

Connectivity: Arctic’s ice meltdown and its geographical location ensuring shortest sea distance between America, Europe and North East Asia, is likely to transform the global maritime commerce, presently conducted through the traditional East–West route through the Malacca Strait and Suez Canal. The opening up of Arctic shipping routes will result in huge savings of cost and time, with the major gainers being the North East Asian ports of Japan, South Korea and China. It would also mitigate China’s *Malacca dilemma* to a large extent and would need a re-evaluation

⁴⁴ Ibid.

of the resultant strategic maritime advantage of India, to cut off Chinese shipping supplies through the Indian Ocean, in times of a conflict.

India’s Arctic Policy targets linking of International North South Transport Corridor (INSTC) with the Unified Deep-Water System (UDWS) of Russia and its further extension to the Arctic.⁴⁵ This, it points out, may result in lowering shipping costs and overall development of the hinterland and of indigenous communities, more than East–West connectivity.⁴⁶ It bears mention that China has referred to trans-Arctic shipping routes as the Polar Silk Road as part of BRI.⁴⁷

The intent of connecting INSTC with UDWS⁴⁸ is commendable, and is likely to unlock trade potential of over US\$ 250 billion and bring the much-needed progress, prosperity, stability and peace through the areas of the region that it traverses. This will also open up new vistas of cooperation with Russia on connectivity. The development of INSTC has found mention in several India–Russia joint statements⁴⁹ and has been mentioned, both by Prime Minister Modi as well as President Putin, on several occasions.⁵⁰ A study by Federation of Freight Forwarders Association in India (FFFAI) estimates that INSTC is 30 per cent cheaper and 40 per cent shorter than the current traditional route⁵¹ and has the potential to move 30 to 50 million tons of goods per year.

India has also proposed the inclusion of Chabahar port in the INSTC and is seeking to expand membership of this project.⁵² More recently, the Delhi Declaration issued after the summit between India and the five Central Asian countries on 27 January 2022, supported India’s proposal to include the Chabahar Port, called upon the other Central Asian countries to consider joining INSTC and noted Turkmenistan’s proposal to include the Turkmenbashi Port within the framework of INSTC.⁵³

⁴⁵ [“India’s Arctic Policy: Building a Partnership for Sustainable Development”](#), No. 1, Article 5.0.8.

⁴⁶ Ibid.

⁴⁷ [“Full Text: China’s Arctic Policy”](#), No. 17.

⁴⁸ UDWS is a 6,500-km long system of inland waterways in Russia which links the White, Baltic, Caspian, Azov, Black Sea and the Volga. It carries 75 per cent of all the inland waterway traffic volume in Russia and the targeted depth throughout is 4.5 metres although the guaranteed depth is 3.6 m for vessels of up to 5,000 tonnes carrying capacity. The volume of cargo turnover in river ports amounts to over 200 million tonnes per year.

⁴⁹ [“India - Russia Joint Statement during Visit of Prime Minister to Vladivostok”](#), Ministry of External Affairs, Government of India, 5 September 2019.

⁵⁰ [“Saint Petersburg Declaration by the Russian Federation and the Republic of India: A Vision for the 21st Century”](#), Ministry of External Affairs, Government of India, 1 June 2017; [“Meeting of the Valdai Discussion Club”](#), President of Russia, 3 October 2019.

⁵¹ [“FFFAI to Organise INSTC Conference in December with Ministry of Commerce & Industry”](#), *Indian Transport and Logistics News*.

⁵² [“Hopeful Membership of INSTC Project will be Expanded: Jaishankar”](#), *The Economic Times*, 4 March 2021.

⁵³ [“Delhi Declaration of the 1st India-Central Asia Summit”](#), Ministry of External Affairs, Government of India, 27 January 2022.

Strategic Contestation: Despite the Arctic emerging as an arena of great power rivalry and competition, India’s Arctic Policy has rightly underplayed it and instead focused on the mutually beneficial aspects. This is in stark contrast to China’s self-declaration as a Near Arctic State, which raised the hackles of all Arctic states and threw light on China’s designs towards the region.

Conclusion

India’s association with Arctic is over 100 years old, having been one of the original *High Contracting Parties* to the Svalbard (formerly Spitsbergen) Treaty in February 1920.⁵⁴ Even today, the Treaty provides the right of visa-free access and conduct of economic and commercial activities to the citizens of India in Svalbard.⁵⁵ Indian research station ‘Himadri’ at Ny-Ålesund was dedicated to the nation in 2008, making India the only developing country apart from China to have an Arctic research base.

India’s Arctic Policy is timely and is likely to provide a direction to India’s policy-makers on contours of India’s engagement with the region. It is the first step towards developing a whole-of-government approach on India’s engagement with the region. The Policy is likely to have a multiplier effect towards a more synergised and focused scientific research including an enhanced understanding of linkages between monsoons and climate change in the Arctic, and between polar studies and the Himalayas. The economic agenda of the Policy is likely to help Indian industries establish a toe-hold in the region, as also gain access to clean and environmentally sustainable technologies. India’s expertise in the e-commerce and space sectors can bridge the great physical distances and far-fledged communities in the Arctic. The development of indigenous capacities on the Arctic will lead to a greater and multi-faceted cooperation with the Arctic region. The Policy is also likely to raise awareness about the Arctic within India and vice-versa through conduct of programmes, seminars and events in India and in the Arctic. It will also create capacities for research in the country on Arctic governance and geopolitics as also serve the role of signalling India’s interest in the Arctic, to the world.

India’s Arctic Policy is deftly dovetailed, enmeshed and in synergy with the broader policy framework of the Government of India. Most importantly, in keeping with India’s civilisational ethos of *Vasudhaiva Kutumbakam—the world is but one family*, India’s Arctic Policy is inclusive and participative wherein India offers its readiness to “*play its part and contribute to the global good*”. The release of India’s Arctic Policy, therefore, augurs well for India’s Arctic endeavours and the world at large.

⁵⁴ [“The Spitsbergen Treaty”](#); also see [“Treaty of 9 February 1920 Relating to Spitsbergen \(Svalbard\)”](#), Royal Ministry of Justice.

⁵⁵ [“Treaty of 9 February 1920 Relating to Spitsbergen \(Svalbard\)”](#), No. 54, Article 3.

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