

СТРАНЫ И РЕГИОНЫ ПОЛИЦЕНТРИЧНОГО МИРА

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India in the Arctic: A multidimensional approach

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The Arctic region has spectacular roots in Indian civilizational thinking and thus represents a familiar region. Shaped by its long association and significant expertise in the Antarctic Treaty System; its first scientific expedition to the Arctic Ocean in 2007 followed by the setting of the Arctic research base in 2008 and subsequently its Permanent Observer status in 2013, India's dominant narrative remains scientific and polar research. But with summer in the Arctic arriving early and staying longer, accessibility to the vast natural resources and huge investment has significantly altered the geopolitical landscape of the Arctic region. The question of how to develop the resources in a sustainable and peaceful manner competes with the complex science of the Arctic and the unique risks that such commercial ventures pose. India's reluctance to de-emphasize its scientific interest towards a more calibrated approach that takes into account the politico-strategic-economic dimensions in the Arctic reflects the tension between the exceptionalism and the realism of its polar legacy. The article assesses how the Arctic orientation is changing from a uni-dimensional to a dynamic and multi-dimensional engagement. The author argues that India's Arctic approach is essentially binary: while indeed India has a stake in the governance of global commons and to cooperate with the littoral states for effective science policies, it also cares about sustainable resource development without making the Arctic region unstable.

Keywords: India, Arctic Council, civilizational, climate change, energy.

Introduction

Regions are fundamentally geographical concept but become dynamic and changeable with the influence of political factors. The Arctic is no exception. Growing access to resources and the geopolitical dynamics are impacting the Arctic landscape as never before. As a region of high-risk climate vulnerability and high-reward economic development, the Arctic has emerged as a critical arena in the 21st century geopolitics, scientific

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research and commerce. The future pattern of climate change and ice-melting will undoubtedly open areas for cooperation but also potentially competition and contestation. Consequently, countries' interests are bound to intersect on issues in the Arctic whether related to sovereignty or international law, or on governance. On the other hand, with increasing scientific findings, the public today is far more aware about the polar region and polar climate change, reflecting, in a way, a changed conversation on the fragility of the Arctic than the images of a desolate, dreary and dark Arctic.

A number of conceptual and contextual challenges emerge in the contemporary Arctic, such as, the possibility of Arctic to continue to play an exemplary role in the treatment of competitive-cooperative relations in the international system; in handling the human-environment relations in the Anthropocene¹ and whether the largely cooperative relations among the Arctic 8 (Canada, Greenland/Denmark, Norway, Iceland, Finland, Sweden, Russia and the USA) will witness strains by the growing pressure on the part of powerful non-Arctic states to be granted a stronger voice in Arctic affairs.

With India and China along with Japan, South Korea and Singapore being accepted as Permanent Observer to the Arctic Council (hereon Council) at the Kiruna Ministerial Meeting in May 2013, Asian countries involvement in the Arctic region has increased steadily. The observer definition clearly, without being subordinate, emphasises on the non-Arctic states to 'accept', 'support', 'recognize', 'respect' and 'demonstrate' various objectives of the Council. A variety of interlinked issues from shipping routes and resource exploitation to resource governance and climate impact have raised questions on the scope of the Council, its organisational structure, establishing priorities, and funding. As the Asian observers participate in the Council, these questions will very much be observed by them [2, p. 8; 3, p. 392; 4, p. 89–90].

The Arctic 8 view the participation of the Asian states as a promising economic possibility while not discounting the security and governance challenges. The Council, the pre-eminent regional forum, with its permanent members and an expanded observer members, has long focused on environmental cooperation and assessment although its activities and has over the past few years developed guidelines for economic activities as well. It is this growing range of activities under the guidance of the Council alongside the more articulated Arctic interests of the Arctic states that have opened space for non-Arctic, Asian states participation and stakes northwards.

With the above background, this article positions itself amongst existing works that speculate on the motivations and outcomes of India's approach in the Arctic. Clearly the participation of new observers is changing the dynamics of interactions within the Council. The interplay and interpretation between the older observer and permanent members of the Council vis-a-vis Asian interests are interesting to observe. Understanding these transformations in the Council will be pertinent given the organization's significant role in the policy deliberations and governance of a region that has been caught up with scientific and climate change discourses and debates about wider economic imperatives and opportunities (e. g. natural resource extractions and the opening up of lucrative Arctic sea routes).

Unlike in the scientific fields of climatology, glaciology and oceanography, India has yet to develop a comprehensive Arctic political and economic approach. However, the is-

¹ The concept given by Paul Crutzen and Eugene Stoermer in 2000. They suggested the age be called the Anthropocene or the 'recent age of man' [1, p. 17].

sues of Arctic development are now being widely discussed beyond the scientific, thereby encouraging a broad-based Arctic programme. The article will examine India's civilizational connect in the Arctic, the enduring polar scientific engagement and the more recent diplomatic and political engagement *vis-à-vis* the Arctic littoral states, with emphasis on Russia.

India and the Arctic: Civilizational and Contemporary

In recent times, India has been closely following the developments in the Arctic region. Its Arctic approach is a product of the intertwining global forces of the environment, commercial and the strategic. In 2007 India took a scientific expedition to the Arctic Ocean and in 2008 it opened a scientific research station *Himadri* at the international research base in Ny-Alesund in Svalbard. With its growing scientific participation and financial investments in Arctic studies, India was elected to the Council of the International Arctic Science Committee in 2012. Determined to expand its footprint, India applied for Observer Status in 2012 and the following year it was granted Observer Status to the Council. These contemporary developments in the Arctic cannot be viewed in isolation and need to be seen through the lens of diverse perspectives. India's prevailing narrative in the Arctic is a scientific endeavour, other narratives such as the economic and strategic are gaining attention. However, India's policy choices in the Arctic should not be polarised between the idealism of scientific and the realism of economic and strategic issues but a rational choice of carefully studying and assessing the region before drawing policy conclusions.

The contemporariness of India's relationship with the Arctic is unmistakable but there also exists racial, philosophical, anthropological and linguistic dimensions, which remains much unexplored. For India, the Arctic has a civilizational connect and a racial memory. While India's colonial participation (the British Empire) as party to the Spitsbergen Treaty (1920) that defined Norway's sovereignty over the Arctic archipelago of Svalbard is well understood, the debate on various theories of Indian ancestry has remained underexplored in India's popular and contemporary discourses on the Arctic. It was Bal Gangadhar Tilak, leader of India's independence movement, who through his work *The Arctic Home in the Vedas* (1903) concluded that the ancestors of India's ancient Vedic civilisation lived in the Arctic region. It was for the first time that Arctic featured in India's racial debate. This, of course, was challenged later by the 'Out-of-India' theory that claimed the Indo-European languages originated in India and moved westwards thus debunking the Aryan migration theory. The point, however, is not to contest or support Tilak's findings, but to locate Arctic in the popular imagination of India's racial profiling. There is a historical legacy that needs to be underscored in India's contemporary Arctic policies by looking at Tilak's arguments.

Tilak's interpretation of cultural-historical geography came at a time when geographical determinism emerged as a dominant school of thought around the end of the 19th century and the beginning of 20th century, which viewed human history being determined by the physical environment. Political geographers of the time like Friedrich Ratzel and Harlford Mackinder, imperialist in their outlook, emphasised location and topography as important geographic properties in influencing geopolitical thinking. Ratzel compared the state to an organism which needed space (*lebensraum*) to expand [5, p. 60–62], whereas Mackinder strongly felt that geography should have objectives that serve the

needs of the state [6, p. 425]. While Ratzel and Mackinder's work offer a conceptual peg to the dramatically changing landscape and seascape in the Arctic in contemporary times, which is keeping both the littoral and non-littoral countries interested through competition and cooperation as well as strategic positioning and posturing, Tilak brought in an Indian consciousness to human social evolution as a response to physical environment.

Tilak's research remains the most striking interpretation of Indo-Aryan history and through his valuable works, *Orion or the Antiquity of the Vedas* (1892) and *The Arctic Home of Vedas* (1903) refuted the argument that the European culture developed earlier than the Indian culture and used the Vedic texts to assert the superiority of the Indo-Aryan culture.

Unlike the European experience where a collective idea of the pole came through the detailed notes and diaries of the explorers and inspired many polar prose and verses, in India, the *Vedas* (the oldest scriptures of Hinduism written in Sanskrit) were the fountain head of knowledge of the Arctic. Interpreting the text of the *Vedas* was an evidenced based exercise to fill the missing gaps in the origin and migration theory of the Aryans.

Contemporary developments in the Arctic cannot be viewed in isolation and need to be seen through the lens of diverse perspectives. By revealing, in this section, the intertwining forces of geography and culture, an attempt has been made to contextualise and intellectualise India's Arctic attention as a familiar territory and not an alien region thereby helping to position it in the policy domain which remains crowded with other immediate issues.

India's polar evolution

Post-independence, polar research in India developed as an offshoot of its ocean views and thinking [7, p. 110]. For India, the sea and its coastline have always been vital as the Indian summer monsoon rainfall is influenced by a system of oscillating sea surface temperatures. The sea has a great influence on the physical and meteorological conditions and realizing the significance of its vast sea coast, India set up the Department of Ocean Development (DOD) in 1981 with an aim of creating a "deeper understanding of the oceanic regime, the development of technology and technological aids for harnessing of resources and understanding of various physical, chemical and biological processes" [8]. Prime Minister Indira Gandhi showed particular interest in scientific and technology endeavours and considered it critical to India's development, global standing and knowledge contribution. Advancement in nuclear and atomic research, space development and subsequently polar research got the necessary political boost and sustained capital flow.

The DOD was established as a focal point to promote institutional capability in the ocean areas, where India had little knowledge and scant experience. Also it was reasoned that the complexity of the ocean science would require a broad-based interdisciplinary approach. The DOD thus became the central agency to help comprehensive ocean development programmes and put India in the forefront of nation with domain expertise. The DOD was given sufficient powers and financial autonomy to coordinate efforts with other agencies and was also given the responsibilities to closely cooperate with both developing and developed countries in a "spirit of understanding of the concept that the oceans are a common heritage of humankind" [8]. One of the programmes of the DOD was the 'Antarctic expedition and Polar science'. The DOD was the nodal centre to monitor and

study the Antarctic and by 1983 India had set up a permanent research station (*Dakshin Gangotri*). The Antarctic has been the laboratory of India's polar research, gradually giving it the capability and capacity to engage subsequently in the Arctic.

The DOD transformed into a full-fledged Ministry of Earth Sciences (MoES) in 2006. The purpose was to create a framework for understanding and unravelling the complex interaction among key elements of the Earth system — ocean and atmosphere. The ministry is an umbrella of all the meteorological and ocean development activities of India and is headed by a senior cabinet minister. It is responsible for formulating and implementing policies as well as ensuring necessary interdisciplinary integration. “It is mandated to provide the nation with best possible services in forecasting the monsoons and other weather/climate parameters, ocean state, earthquakes, tsunamis and other phenomena related to earth systems through well integrated programmes” [8]. The MoES in its charter also deals with science and technology for exploration and exploitation of ocean resources and is the nodal point for Antarctic/Arctic and Southern Ocean research.

The scientific activities of India in polar research which began in a small but earnest way in Antarctic have evolved and expanded to the northern Arctic. The north and south polar research is now a deep, comprehensive and ongoing programme subject to continuous review and updating in accordance with the national priorities and global perspectives. While India's Antarctic scientific reach is now well established and deeply imprinted, its Arctic endeavours are relatively recent. Amongst the Asian countries — China, Japan and South Korea — India is the last to have set up a research station in the Arctic region. The Arctic has further widened India's research from pole to pole. With research stations at both poles, India has a formidable advantage in data collection and comparison. Being a developing country with a high level of vulnerability to the impact of climate change, India is committed to understanding the scientific processes behind climate change, moreover, India's management of the Himalaya requires a comprehensive study of glaciology. The geopolitical rhetoric of Arctic ‘exceptionalism’, according to Sanjay Chaturvedi “appears rather untenable in the face of transformational multiscalar change, growing number of stakeholders, uncertainty and risks” [9, p. 41].

India has reasons to worry about the geo-physical changes in the Arctic. First and foremost, a number of studies have indicated that there are connections between the Arctic region and the strength of Indian monsoon [10, p. 356–357]. Tele-connection between tropical Indian Ocean and the Arctic for better understanding the monsoon dynamics is critical for India's agricultural sector. Indian researchers have detected this relation but need further findings and investigation on intra-seasonal, inter-annual and decadal time scales.

Second, the acceleration of sea level rise as a consequence of the melting of the glaciers in Antarctica and the Greenland ice, based on the study of 25-years of NASA and European satellite data, may cause sea level rise by 65 cm in 2100 resulting in significant problems for coastal cities [11]. India has a coastline of 7516 sq km with about 20 per cent of the population living in the coastal areas and a larger percentage of this residing in coastal cities like Mumbai, Chennai and Kolkata. The above risks have resulted in rapid intensification of Indian scientific research in the Antarctica and Arctic.

With its experience in the Antarctic, India established, in 2008, a research station in Ny-Alesund, one of the four permanent settlements in the island of Spitzbergen, in the Svalbard archipelago. ‘Christened’ as *Himadri* (Greater Himalaya as the abode of snow),

it primarily conducts research on atmospheric sciences, earth sciences/palaeo-climate, glaciology/geology and biological studies [12]. The christening of research stations in Antarctic and Arctic draws attention to the Hindu ancient texts and the significance of the Himalayas. For example, *Dakshin Gangotri*, India's first research base in the Antarctic, now decommissioned, expresses the significance of *Gangotri*, a glacier source of the Ganga, which is the most revered river in India. *Maitri*, the second research station in Antarctica, is a Sanskrit word meaning friendship and is also the name of an important Hindu ancient text *Maitrayaniya Upanishad*.

India: Tri-polar nation

By connecting the two poles to the Himalaya landscape through scientific linkages and ancient Hindu symbols, the idea of India as a 'tri-polar nation' easily resonates with public imagination by bringing in a cosmic frame of reference. In Hindu belief, the natural habitat of spirits and gods are the mountaintops. Myth has it that Mount Meru, the abode of gods, with its foothills, the Himalaya, stands in the centre of the earth and is the axis of the world. Neeraj Kumar in his work on the ancient geophilosophy of India or the *Sri-yantra* writes, "Essentially the geographical positioning of a country influences its thinking and thus impacts its philosophy. *Sri-yantra*, a mythical instrument, strikes a balance between the gross subtle and causal dimensions of the microcosmic and macrocosmic phenomena. It syncs with the esoteric ontology of the cosmos, the individual body, the state, the nation in its geographic aspect, all creative and conducive societal values, and the grand unification of existing dogmas, doctrines, creeds and commitments" [13, p. 19].

The scale of the research activities in the Arctic has been modest as large portions of the financial resources given to the National Centre for Antarctic and Ocean Research now called the National Centre for Polar and Ocean Research (NCPOR) is utilized for maintaining the two research stations in Antarctic². Since 2007, India has sent expeditions twice a year to the Arctic and has so far spent USD 3 million on research activities and till May 2013 there were only four scientists working at the *Himadri* research station. But now as an observer status and with increased budget (USD 12 million by 2018) greater attention is expected³. Some of India's major research objectives in the Arctic region are geared towards analysing 'hypothesized tele-connections' between the Arctic climate and the Indian monsoon; studying the characteristic changes in the sea ice in the Arctic due to warming; and investigating Arctic glaciers and effect on sea-level rise [16]. Similar studies on the counteracting effect of future sea-ice loss on the Indian monsoon are being carried out in the Antarctic [17].

One of the prime objectives to study the glaciers in the Arctic is to compare and observe the rate of changes in the Himalayan glaciers, and then to understand its impact on the hydrology, ecology and climate. Using ice as an archive of information, Indian scientists are drawing data from the Arctic to monitor the biogeochemical aspects of the Himalayan ice.

The glaciers of the Himalaya provide the source for the major Asian rivers including the Mekong and the Brahmaputra. Growing evidences indicating changing profile of the

² The Ministry of Earth Sciences response to questions in Parliament [14].

³ In 2013, the government planned to increase the budget to USD 12 million in the next 5 years (2013–2018). The statement of the Ministry of External Affairs, Government of India [15].

glaciers, reduced permafrost, and monsoon variability are a source of livelihood concern for the vast population that is dependent on water for agricultural activities.

Balancing scientific with commercial: Russian factor

With the opening of the regular Moscow-Spitzbergen North Pole route for extreme tourism enthusiast in 2002, Russia brought back its attention to the Arctic. Russia has much to gain from the Arctic region in terms of resource development and the North Sea route passage. Despite the off and on assertive rhetoric on the Arctic, it largely has a cooperative framework with the Arctic 8. While Russia continues to have a military presence in the Arctic to protect its strategic assets and infrastructure albeit significantly reduced since the Cold War era it is unlikely to militarise the Arctic. Russia is wary of NATO and in recent times it has not flinched in showing hostility. It will be interesting to observe the role of the Council in limiting the potential for unintended escalation of tensions within the Arctic 8. Maybe the time has come for the Council to bring into discussion security issues, which has never been its mandate.

Russia is referred to as “India’s ticket to the Arctic energy riches” [18]. Two specific areas emerge for India’s engagement — the scientific and resource exploitation. From an environmental / scientific consideration, India’s engagements in the Arctic is a measure of its climate concerns and a reassurance to the global community about its climate commitment thereby banishing the western thoughts that India is not doing enough in the battle against global warming. On the resource front, particularly oil and gas, there has been much excitement over the hydrocarbon deposits in the Arctic but strong questions remain over its extraction, affordability and environmental damages. Given India’s standing on the global climate change issues, it will be seen as being hypocritical if any advancement is made towards new oil exploration. Gas development, on the other hand, a lesser polluter than oil, is a possibility because it is less CO₂ intensive.

Recently, India’s engagement with Russia has looked beyond the two pillars of defence and energy suggesting that the bilateral relations are becoming far more dynamic. Cooperation in areas such as hi-tech, people to people contacts and scientific ties has gained momentum. Resultantly, a strong thrust on the Arctic has emerged with India increasing its investments into promising projects and simultaneously developing its climate research. For Russia, India’s participation in the development of natural resources of the Russian Arctic, is beneficial amidst Western sanctions. “Cooperation with India will also allow Russia to considerably enhance its export capacities, extending the geography of its supplies, diversifying its sales markets, and partially compensating its losses due to external limitations. Indian partners lack critical expertise in the development of shelf deposits under severe climate conditions, but the Russian oil industry urgently needs an additional source of investments” [19, p. 15].

The joint statements of 2014 emphasised on joint exploration of hydrocarbons by Russian and Indian companies in the Arctic region and were expanded to include “scientific cooperation to study challenges like melting ice, climate change, marine life and bio-diversity” [20]. The two countries since 2016 have shown interest in expanding their cooperation in Arctic energy and scientific development.

The joint statement of 2015 stated, “Both Sides acknowledge the significance of supply of liquefied natural gas (LNG) supplies from Russia to India. In this regard, the Sides

expressed satisfaction at the development of cooperation between Gazprom Group and its Indian partners in LNG trade. The Russian Side welcomes the interest and involvement of Indian partners with regard to cooperation in joint projects stipulating the possibility of LNG supply to India from JSC NOVATEK project Arctic LNG on the resource base of the fields located on the Gydan Peninsula and partly in the Gulf of Ob” [21]. Further the joint statement said, “Considering Russia’s status as a member of the Arctic Council (AC) and India’s observer status at this organization since 2013, the Sides emphasized the importance of joint activities in the framework of the Arctic Council. They acknowledged the potential for the development of joint scientific research in the Arctic region, particularly the Russian Scientific Center on Spitsbergen (Svalbard) archipelago” [21].

In October 2016, a consortium of Indian companies, headed by Oil India Limited (OIL) formalised a 23.9 per cent acquisition of Vankorneft (a Rosneft controlled company managing the huge Vankor oilfield). This was followed by OIL taking another 29.9 per cent stake in the nearby Tass-Yuryakh oilfield. By the end of October 2016, ONGC Videsh completed the acquisition of an additional 11 per cent interest in Vankor oilfield taking its stake to 26 per cent. Both the two projects are located in Russia’s northern Tundra to the west of river Yenisey [22]. Earlier in 2013, the consortium comprising of OVL-Petronet LNG and IOC started talks with Russian OAO Novatek for a stake in the company’s Phase I Yamal project mainly to gain access to some 16.5 million tonnes of LNG/year from 2016 [22]. However, OVL did not find the offer attractive and backed-off. Russia has once again offered Indian oil companies a stake in the Phase II of the Yamal project, the biggest project to produce LNG from the Arctic [23].

The Vankor oilfield is an example of an Indian company cooperating with Russia’s Rosneft and building business confidence by investing in Russia. In March 2017 Gazprom Neft and ONGC Videsh signed a MoU for offshore hydrocarbon production projects in Russia [24]. These deals are important, particularly as the NSR (Northern Sea Route) opens up to shipping and trade. The ONGC Videsh which is already taking part in the flagship Sakhalin I project in Far East Russia has commenced production from the Akutun Dagi, the third and final oil and gas field [25] will benefit from the NSR by supplying oil and gas to Europe in the west and Japan in the east. These successes have opened up new opportunities to investment in Russia’s Far East. At the 3rd Eastern Economic Forum in 2017 in Vladivostok, five country-level business dialogues took place at the Forum that included Russia — India with the theme ‘Identifying New Opportunities’ [26]. India is eager to participate in the regions development in the east as well as in the Barents and Murmansk region in the west.

The St Petersburg Declaration 2017 refers to building an “Energy Bridge” between the two countries, stating, “We are interested in launching joint projects on exploration and exploitation of hydrocarbons in the Arctic shelf of the Russian Federation” [28]. In the recent joint statement of 2018, a broader road map on the Arctic was envisioned. It states, “The two Sides expressed interest in the development of mutually beneficial cooperation in the Arctic, inter alia in the sphere of joint scientific research.” The Sides noted with satisfaction the longstanding cooperation of Indian and Russian scientists in the Antarctic and expressed “...to work together to explore joint projects for productive, efficient and economic use of natural resources in each other’s country through application of appropriate technologies while ensuring affordable environment friendly utilization of natural resources”. On the energy front, the joint statement noted, “the importance of further

widening of energy cooperation between India and Russia taking into account the Indian Side's interest in Russian energy assets, including natural gas, as well as in implementation of prospective joint projects in the field of renewable energy sources" and expressed "their support to companies from both sides for development of cooperation and exploring opportunities for joint development of oil fields in the Russian territory, including in the Arctic shelf of Russia and joint development of projects on the shelf of the Pechora and Okhotsk Seas" [29].

India imports more than 80 per cent of its oil needs or closely 2.6 million barrels per day from the West Asian region including Arab Gulf. While these energy supplies have remained assured even in times of political instability and in return, India remains one of the most reliable consumers of their energy supply, it is rational to diversify the energy supplies thus Russia becomes a reliable energy partner. That said, India's recent economic growth policies have been driven by the need to balance ecological concern with energy needs. India's renewable power capacity is targeted to increase fivefold from 2014 to 2022, making India a clean energy leader. Renewable development can form an important part of cooperation between India and the Arctic states. In January 2018, Iceland Geosurvey and the Centre of Excellence for Geothermal Energy in Gujarat signed an agreement in the geothermal sector. Most of India's geothermal locations are in the Himalayas [30].

While ecological consideration is undeniably the mainstay of India's Arctic policy, it is reasoned that India's economic diplomacy in the Arctic should not be hydrocarbon-centric but also look at mineral development in the Barents Sea and secure an investment footing with the assistance of Norway and Russia. The Barents region has some of the best known mineral deposits and some of the world's best deep harbours from which to ship the products. The rapid sea port development in the region will require skilled manpower which India can provide because of its track record of supporting port infrastructure. In fact these elements could be a strong aspect of its bilateral relations with both Russia and Norway. In 2011, Indian-born British steel baron Laxmi Mittal, planned to build an opencast mine 300 miles inside the Arctic circle in a bid to potentially extract USD 23 billion worth of iron ore [31]. The project failed to take off, but the value of steel commodity driven by increasing demand from China, India and the rest of Asia will continue to make the Barents a prospecting destination.

The shipping routes — Northern Sea Route and the Northwest Passage — that are fast opening up in the Arctic offer exciting prospects. But this depends on the proximity of the country to the Arctic. Russia and Canada have the longest Arctic coastline and each strongly claims the sea routes as 'internal waters' — which means that ships need permission to pass through the waters. Shipping through the northern sea route, as compared to the Suez Canal route, is calculated to cut down the distance by almost 5200 km or 2807 nautical miles between Shanghai and Hamburg and effectively a cost saving of over 30–40 per cent [32]. Given China, Japan and Korea's geographical proximity, the reduced shipping route will be of enormous advantage. On the other hand, India will have virtually no benefit.

Thus, India's naval strategy should continue to be anchored in the Indian Ocean Region and to establish itself as the resident maritime power and to thwart strategies that polarise the Indian Ocean Region (IOR). In fact the sea routes shift through the Arctic will not greatly diminish the traditional Europe-Asia route. With the US' rebalancing its

global engagement, the focus on the 'Indo-Pacific' that integrates the Indian Ocean and the Pacific Ocean into a single region will be far more significant [33].

The Northern Sea Route (NSR) makes sense for China, Japan and Korea but is not viable for India. However, concerns come up that traffic through the NSR could lead to a shift in the power balance in the IOR. But since India is not a transshipment hub, trade through the NSR will have little impact on Indian harbours. Moreover, India has no military aspirations in the Arctic. Most of the Russian equipments bought by India like the aircraft carrier, the nuclear submarine, and surveillance aircrafts have now been 'tropicalized'.

Beyond the Scientific

The Arctic affairs are not far and away. India's position of viewing the Arctic as a "scientific enterprise" and "knowledge enhancement" in monitoring the glaciers and the ecosystem in the Himalaya is a reasoned one. Reflecting on the scientific temperament of the current government led by Prime Minister Narendra Modi, the MoES approved of the acquisition of Polar Research Vessel at a total cost of USD 155 million. This will help India widen the thrust on Arctic research disciplines undertaken through Indian research station *Himadri*. Such a vessel can also serve as a research platform for scientists to undertake scientific research in the ocean realm. However, India has to rework its engagement to the immediate economic and infrastructure developments in the Arctic region especially navigation facilities and services.

The commercial and strategic interest will require Arctic-oriented bilateral arrangements. Countries like Norway and South Korea can become significant actors in this calculation. There is a calculation suggesting that India should leverage trade talks with South Korea to achieve its Arctic interest. In 2010, India and South Korea signed a Comprehensive Economic Partnership Agreement (CEPA) and in 2015, Prime Minister Modi on his visit to Seoul advanced the CEPA to include maritime transport and sharing of maritime technologies [34]. As the Northern Sea Route opens up, South Korea will emerge as the next hub for oil storage and thus India's calculations can clearly have dividends. Not surprisingly, talks to review the Indo-Korean Free Trade Agreement (FTA) are underway. India's relations with South Korea has the potential to give economic impetus in the Arctic, particularly as India's traditional partner Russia forges strategic partnership with China in the Arctic. The Council in an indirect way is providing further impetus to these developments.

India is one of the fastest energy consumer in the world and the Arctic presents an opportunity to rekindle relationship with Russia in exploring the hydrocarbon potential. India's labour force with skills in port development and mining can help develop the Barents region. Norway has good relations with Russia in the Arctic evidenced from the 25-years old Barents Cooperation on a number of areas, including commercial development, transport and communication, culture, environmental protection and security. Along with Finland and Sweden, it has proven to be one of the most enduring and constructive multilateral cooperation in the north since the end of the Cold War. On the other hand, with India's robust relations with Norway and its deep bonds with Russia, an informal triumvirate (Norway — Russia — India) can become an important catalyst of peace and development in the Arctic.

Shaping an official Arctic Policy

India is not accustomed to institutionalised doctrinal approach commonly referred to as official/white papers. Channels of inputs into policy making from non-partisan experts remain unstructured and impromptu. Resultantly, policy decisions are strongly influenced by personalities, political elites and the bureaucracy. Till date there is no official document on India's national security though there is a growing pressure to formulate one. In the light of this, to expect a white paper or an official document on the Arctic might be ambitious. The Arctic region in terms of immediate security and foreign policy concerns is not a priority. Despite the low attention both in the public domain and the policy circle, India does need to play an active role in the Arctic Council and craft its signals carefully rather than have sporadic Arctic briefings and communiqués. To this end, a science policy towards the Arctic is conceivable with inter-ministerial coordination between the Ministry of Earth Sciences and the Ministry of External Affairs. This will allow India to leverage its strengths to enhance cross-border science and technological cooperation. With science as the underpinning key interrelated perspectives can be brought into the policy, for example seeking possible economic opportunities on the use of sea routes and development of natural resources, and observing the rights of the indigenous people and their traditional economic practices in the region. By understating the security developments in the Arctic region and by emphasising the scientific, India's Arctic policy readily fits into its soft power capacity.

India does not have the resources to venture in a big way in the Arctic but with the observer status, India can think about bringing ideas into the working groups of the Council that can help in the larger Arctic development by bringing together resource management, indigenous community rights and ecological considerations. In other words, advocating for sustainable resource development, which the A5 states are trying to work cooperatively. For that India needs to structure its collaboration in terms of capacity, technology, monetary contribution and incentive-based management to protect the eco-system in the Arctic region. The outcomes of these engagements in the Arctic can also enhance India's regional role in the Hindukush Himalaya and advance the idea of a Himalayan Science Council with the Himalayan states: Pakistan, Nepal, China, Bhutan, Bangladesh, Myanmar and Bangladesh.

The principle partner in India's scientific endeavour in the Arctic is Norway. It was among the first country to recognise India's independence in 1947 and in 1952 Norway's very first international development cooperation, a fishery project, was started in the state of Kerala. In fact the Arctic engagement is an important part of India's bilateral relations with Norway which has seen, in the last decade, an upswing in trade, investment and transfer of technology in sectors such as deep off-shore, shipping, hydro-electricity, information technology and bio-technology. It is no secret that Norway solidly supported India's candidature for observer status at the Kiruna Arctic Council meet in 2013 and Norway continues to back India's candidature for permanent membership in the UN Security Council. Borge Brende, Norway's foreign minister, in 2014, stated that "With strong Norwegian support, India made a successful bid for permanent observer status to the Arctic Council last year" and that "India would be an ideal partner in international efforts on integrated ocean management and environmental protection" [35]. Joint projects on Polar research has gained ascendancy between India and Norway with Indian glaciologists

pursuing research in the Norwegian Polar Institute in Tromsø and the University Centre in Longyearbyen in Svalbard.

Conclusion

Contemporary Arctic expresses an “antithetical situation” [36, p.38–39] with economic and commercial interest on the one end and a need for mitigating climate risks and resource governance at the other. No challenge in the Arctic can be tackled without a holistic approach that takes into consideration the dynamic relations both among people and ecosystems. The evident geo-physical changes accompanied by development opportunities have turned the Arctic into an important space with many perspectives. Duncan Depledge and Klaus Dodds describe Arctic governance arrangements as a “bazaar”, “blurring the lines” between business, governance, science, and society [37, p. 142]. Themes of relationship between people and the environment, the development of cultural landscapes and the history of representing places are interesting observations.

Reading through some of India’s ancient texts and mainstreaming the textual connection to the contemporary Arctic policies, which has been dominated by the scientific narrative, is a useful exercise to emphasise that the Arctic has spectacular roots in Indian thinking and thus a familiar region. While India’s prevailing narrative in the Arctic is scientific, other narratives such as the economic and the strategic are gaining attention both in terms of knowledge and expression. With India’s observer status in the Council, its longstanding strategic partnership with Russia, growing bilateral relations with Norway and its participation in forums like the Arctic Frontiers and the Arctic Circle are together helping it to engage in wider Arctic conversations. Importantly, India’s Act East Policy with countries like Singapore, Japan and Korea gives it an added incentive to bring in a set of new perspectives with Asian participation in the Arctic Council.

It can thus be concluded that India’s Arctic approach need not be seen as a binary. While indeed India has a stake in the governance of global commons and to partner with the littoral states for effective science policies to better understand the complexities facing the Arctic, it can also simultaneously think about sustainable resource development without making the Arctic unstable, unsafe and insecure.

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