Report

on

Seminar

on

"India's Engagement with the Changing Arctic"

04 March 2020
Sapru House

Inaugural Session

Dr. T.C.A. Raghavan, Director General, Indian Council of World Affairs (ICWA) while welcoming the guests explained the history of ICWA and its mandate on expanding foreign policy debates in the country. Talking about the topic of the seminar, he stated that the contemporary Circumpolar Arctic is being relocated at the intersection of three dynamic disciplines: Geostrategy, Geo-economics and Climate Change. India's engagement with this area is of great importance as it is an observer state in the Arctic Council. The seminar, he said, will facilitate the pursuit of serious and sustained interest in the area.

Shri Suresh Reddy, Additional Secretary (Europe), Ministry of External Affairs (MEA), Government of India (GOI) in his remarks said that India's engagement with Arctic is 100 years old. He said that discussions surrounding the Arctic are mainly centered on the following five issue-areas: economic and commercial, scientific research, geo-strategic, trade, climate change and legal governance. He spoke about fundamental changes taking place in the Arctic that are of direct relevance to India. He also stated that growing competition among the Arctic States over sovereign rights and jurisdiction in the Arctic is of interest to India. He concluded that India simply cannot ignore the fact that the Arctic has become the land of opportunities including resource exploitation and growing strategic significance of new sea lanes of communication.

Dr. Vijay Kumar, Scientist G and Advisor, Ministry of Earth Sciences, GOI elaborated on studies that graphically reveal the connection between the changes in the Arctic and monsoon pattern in India. He stated that the challenges in the Arctic go beyond the concerns of a single country and invite collective efforts. He emphasised the need to develop an Arctic perspective that includes views from nations beyond the Arctic circle, as the Arctic is a complex system difficult to monitor. India is committed to establishing laboratories for serious scientific engagement with the Circumpolar Arctic.

His Excellency Mr. Olafur Ragnar Grimsson delivered the 33rd Sapru House lecture.

He said that India's engagement with the Arctic dates to hundred years when it signed the Svalbard Treaty' in February 1920. The future of India to a large extent will be determined by the developments in the Arctic. There is, therefore, a need for

deeper understanding of each other's concerns. The Cold War had ensured that the area remained closed to the world and only in the last 20 years a huge part of the planet has opened for multidimensional diplomatic, scientific, political, and economic cooperation.

He said that it was seven years ago that the Arctic Council accepted India, China and other countries as observers. He called them the "Action States" and not just observer states. The Arctic region is rich in energy resources such as oil, gas, hydropower, marine resources, minerals and metals. Most of the G20 countries are active players and have significant geopolitical and economic interests in the region.

Highlighting the growing geopolitical and geostrategic significance of the Arctic region, he said that the imperative of energy has led China and Russia to develop the 'Power of Serbia', the 8500-km gas pipeline. India and Russia, too are set to deepen trade and investment in the Arctic energy resources. India-China-Russia triangular cooperation in the Arctic can be explored in future. He said that the Arctic Ocean is where new sea lanes/routes such as Northern Sea Route, North-West Passage and Central Arctic will develop despite several challenges. These routes would allow cargo from Europe to Asia to travel faster, reducing time by almost ten days.

He emphasised that the Arctic is not just about resources and economic opportunities, but is also about climate change and weather patterns. Even a 2-meter sea-level rise could have serious consequences globally, particularly for India and the other South Asia States with heavily populated coastlines.

He emphasised the importance of the Third Pole-Himalayan region, with nearly 1.65 billion people depending on its river systems for their food and economic security. It is a fundamental necessity to have a deeper understanding of the impact of climate change on the Third Pole for the people of Asia. The Arctic model offers a structure that could be followed. He said that it was a model that combined science, research and technology as well as democratisation of dialogue.

The discussion that followed delved on the workings of the Arctic Council and the growing importance of the indigenous peoples in the circumpolar Arctic cooperation. Mr Grimsson pointed that the people of the region need to be consulted as states start to implement plans for the development of the Arctic. He also spoke about the growing role of China and stated that India, like China, needs to think of

the future and plan its activities in the Arctic. He stated that India needs to take active interest and participate in all activities of the Arctic Council and other multilateral fora that relate to the Arctic. He further stated that India needed to develop an Arctic policy as in the near future Arctic nations are likely to make the Arctic agenda a part of their bilateral engagements with India.

Session One: Arctic Scientific Frontiers: Regional and Global Significance

The first session of the conference focused on scientific frontiers of the Arctic and their global and regional significance. In his capacity as the chair of the session, Dr. Shailesh Nayak of the National Institute of Advanced Studies (NIAS) delivered his opening remarks. He explained how the Arctic was intimately connected with the weather patterns of the world and emphasised the importance of Arctic for India.

The next presentation by Dr. Krishnan K.P. who focused on India's scientific endeavours in the Arctic. His presentation provided an overview of India's engagement with the Arctic. He noted that India began its engagement with the Arctic in 2007. India opened its first research station, *Himadri*, at the International Arctic Research base, NyÅlesund, Svalbard, Norway in 2008. Since then, India's interest in the Arctic has grown steadily. So far, about 400 scientists have visited the Arctic and about 100 research publications have come out from the research at *Himadri*. India has been actively participating in the working groups of the Arctic Council. India's priorities in the domain of Arctic research are: marine biological research, long-term monitoring for climate change studies and impact of Arctic on global hydrological cycle etc. Dr. Krishnan noted that collaboration between academic institutions in different parts of India and National Polar and Ocean Research Institute would be useful for further promoting research on the Arctic.

After Dr. Krishnan's presentation, Prof. A.A. Mohamed Hatha, who is with the Department of Marine Biology, Microbiology, Biochemistry, Cochin University of Science and Technology, Cochin, presented on 'Rapidly Warming Arctic and its impact on the fjord and Tundra region'. His presentation was especially focused on microbial communities. According to Prof. Hatha, the loss of sea ice in the Arctic affects species' assemblages and interactions. It also affects marine mammal movement. Therefore, for polar bears and pinnipeds, the struggle for survival has gone up significantly. Research on microbial activity as a function of climate change contributes to increased understanding of the fjord region. It also helps in monitoring the long-term impact of climate change in the region. He also noted that colla-

borative research, especially with international institutions, would prove useful for the greater understanding of the Arctic and impact of climate change on the region.

Following Prof. Hatha's presentation, Dr. David Molden who is a Director-General of the International Centre for Integrated Mountain Development (ICIMOD), Kathmandu, spoke about the Hindu Kush Himalaya (HKH) region and how lessons from the Arctic could be applied in this region. HKH region has been a global asset for food, water, and energy. It encompasses 10 major Asian river systems and about 240 million people live in the region. The region is rich in terms of cultural, linguistic and biological diversity. However, the region is fragile and is prone to severe effects of climate change. The region is prone to challenges such as food insecurity, energy poverty and high rates of out-migration. Just like the Arctic, the HKH region is highly vulnerable to climate change and is already facing ill effects of climate change faster than other parts of the planet. Dr. Molden argued for greater sharing of knowledge and data related to the region. He also observed that efforts should be made to limit global warming to 1.5^{0} Celsius.

The discussion during the question and answer (Q&A) session dwelt on the need to study the Himalayan region especially as climate change is leading to the melting of glaciers. The discussions also pointed on the need for India to further study the connections between climate change and changing weather patterns, Indian monsoons and the Himalayas.

Session II: Geo-strategic Relevance of the Arctic

The Chair of the session, Mr R. R. Rashmi, opened the session by discussing the geostrategic implication of the change in the Arctic Ocean and invited attention to Intergovernmental Panel on Climate Change (IPCC) reports which discussed the issue from the scientific perspective. He mentioned that the rate of change in the Arctic will not go down in near the future; in fact, it is going to accelerate in the second half of the 21st century. Its implications are extremely significant and far reaching. According to him, there are three points that highlight the geo-strategic implication of changes in the Arctic region- environment, economy and strategy. As far as environmental perspective is concerned, it is clear that changes are irreversible and its impact on human race will be felt not only in Arctic but across the globe. Given these changes and their impact on earth systems and human system, the question as to what can the international organisations do, becomes important. The Arctic states have formed the Arctic Council to address and mitigate these impacts

in the context of climate change but a lot more needs to be done. The second issue relates to impacts these changes will have on economic activities. He further pointed out that given the transformations the Arctic Circle has seen in recent times, there is an increasing need to focus on economic activities. The economic progress and ecological preservation can go hand in hand. Numerous economic opportunities with these changes are likely to present to us, like increased mining, increased oil exploration and opening of new shipping routes. But at the same time new challenges will also emerge. Arctic region is emerging as a very large source of energy reserves, and India should start investing in these sectors and relevant resource governance regimes. He highlighted that there is also increased potential of hydropower in the Arctic, which has strategic implications for the region. Lastly, under the strategic dimension, he mentioned that new partnerships are likely to evolve, leading to militarisation.

Captain Sarabjeet Parmar began by discussing the potential for both conflict and cooperation in the Arctic. He said that conflict does not necessarily mean use of force. There are different kinds of conflict. Economic warfare is something which has gained importance today. Another term which has gained prominence is 'lawfare' which is a mixture of law and warfare; and this issue might hijack the agenda of Arctic in times to come. According to him, the areas of interest that are of global concern include: scientific research, race for resources, tourism, maritime claims, sea routes, international law, multilateralism and national policies. To strengthen India's engagement with the Arctic region, there is a need to adopt a policy that also ensures broadening and deepening of bilateral ties/agreements with various Arctic states. This is for the simple reason that India does not wish to be behind in developing strategic relationships here. These relationships extend well beyond the Arctic and they come right up to our shores. He further mentioned that through scientific research, we can strengthen our position as an observer state to the Arctic Council. It is important to start taking proactive interest and work with other nations. Working with other nations under trilateral partnerships could also play a significant role. Several useful lessons could be learnt from fishing in the Arctic as India is the second largest producer of fish in the world after China. Marginalisation of any nation and falling in the pro-US/pro-Russia trap must to be avoided. Lastly, he stated that tourism would expand soft power footprint, which could help in educating the masses about our presence and objectives in the Arctic. Thus, there is a need to get the whole nation on board.

The last speaker in the session was Mr. H.P. Rajan who spoke about delineating sovereign rights in the Arctic Ocean. He brought up two specific issues: first, melting of Arctic apart from the climate change issue essentially brings out new sea routes. So, there is a possibility of huge economic benefits and resources. Melting of Arctic can also be considered as an economic boon, which raises issues of sovereignty relating to resources, not necessarily issues relating to conflict over territory. Secondly, he focused on science because much is being talked about scientific cooperation. He analysed the Arctic Ocean from a legal perspective and said that the region is like any other ocean and the 1982 United Nation Convention on the Law of the Sea (UNCLOS III) also applies to the Arctic Ocean. There is only one provision in Article 234 which deals with ice covered areas specifically with reference to navigation because of safety hazard and marine pollution. Further, he mentioned that all coastal states enjoy sovereign rights up to 200 nautical miles of Exclusive Economic Zone and they also enjoy sovereign rights over the submarine areas as per the relevant provisions.

Session Three: India's Engagement with the Changing Arctic

The session was chaired by Prof. Sanjay Chaturvedi, Dean, Faculty of Social Sciences, South Asian University, New Delhi. Prof. Chaturvedi in his opening remarks said that the narrative of 'Arctic in change' needs to be tempered with the fact that there has been a remarkable continuity in Arctic affairs. Today, there is no single narrative on the contemporary Arctic but multiple geopolitical, geoeconomic and geostrategic narratives, competing with one another for greater visibility and attention, in the era of climate change and growing resource scarcities. While talking about the dominant narrative of India's engagement with the Circumpolar Arctic, it is relatively recent and revolves largely around implications of changing Northern Eurasian geopolitics and the imperative of scientific research/cooperation. However, India's engagement with the Circumpolar Arctic needs to be seen in conjunction with its larger and older engagement with the Antarctic. Indian engagement in the Arctic is relatively new and we could benefit enormously from the scientific knowledge, logistical experience and policy insights that India has accumulated from its engagement with Southern Polar Region as a Consultative Member in the Antarctic Treaty System (ATS) since early 1980s. Also, with both the polar regions facing a number of more or less similar policy challenges of regulating fast-

multiplying human uses (e.g. tourism) and abuses (e.g. Illegal Unreported Unregulated fishing), the expertise gained and lessons learnt in one area can be fruitfully, even though selectively, applied to the other. Talking about the loss of Arctic exceptionalism, he said that the 'normalisation' of the Circumpolar Arctic comes with a heavy cost because any dilution of ecological exceptionalism of this region, along with the loss of exceptionalism of the other two Poles (Antarctica and Himalaya), will seriously undermine the prospects of sustainable futures for the entire humanity. Given the irrevocable changes unfolding in the Arctic today, India, while formulating its policy for multi-faceted policy for a serious and systematic engagement will have to be mindful of the fact that in anthropocene what happens in the Arctic will have direct and significant impact on India and the rest of the world.

Prof. Chaturvedi also spoke of the five myths regarding the Arctic as highlighted in the Global Agenda Council on the Arctic in 2014. If uncritically accepted, these myths could exaggerate and amplify both risks and opportunities facing policy makers at multiple levels. The *first* myth negates the reality of Arctic homelands and communities by portraying the Arctic as an uninhabited, unclaimed 'frontier' devoid of any regulations or governance mechanisms. Questioning this myth, he pointed out that there is no shortage of initiatives aimed at regulating fishing, shipping, tourism, resource exploitation, scientific research etc. The Arctic Council, for example has been working towards addressing the concerns and demands of local and indigenous peoples while focusing the sustainable development goals (SDGs) for the region. The *second* myth is that the region's natural resource wealth is readily accessible for development. He said that the Arctic resource map is highly differentiated. Who gets what, where, when and how from the Arctic resource map? This is a rather difficult question to answer. Extracting resources is a rather complex and risky venture in polar environments, and such projects would require large scale investments, including development of specialised technologies and ensuring environmental-social impact assessments. The *third* myth is that the Arctic will be immediately accessible once it turns blue, due to steadily retreating and thinning sea ice. It is conveniently forgotten that sea ice is not the only hurdle to shipping and maritime structures such as drilling platforms. Other challenges include long periods of polar darkness, high costs of operating vessels in the Arctic, significant gaps in hydrographic knowledge and low search-and-rescue capability and related infrastructure. What further challenges this myth is the lack of adequate navigation control systems and high insurance costs. The information about the region is far

from being adequate. Notwithstanding highly titillating prospects of the Northern Sea Route (NSR) and Northwest Passage (NWP) providing much shorter shipping routes in comparison to the Suez Canal for example, some of the key risks associated with the Arctic shipping include uncertainty surrounding manning costs demanding labour force with highly specialised seafaring skills, logistics, especially regarding emergency evacuation and rescue. He added that the key stakeholders in the Arctic maritime navigation today include several international maritime organisations like International Hydrographic Organisation (IHO), which has established Arctic Regional Hydrographic Commission and World Meteorological Organisation (WMO) having observing systems and Arctic networks relating to sea ice, climate observation and so on. The *fourth myth is* that the Arctic is the next flashpoint on the face of the globe with several bilateral and multilateral geopolitical disputes and contestations in the making. What gets eclipsed in this sensational narrative of a 'new great game' or 'new cold war' in the Arctic is the fact of ongoing international collaboration, with the Arctic countries largely conforming to standard international treaties (e.g. UNCLOS), actively participating in regional forums (e.g. The Arctic Council) and using regular diplomatic channels to resolve their differences. The *fifth* myth creates the wrong impression that climate changes in the Arctic are solely of local, national and regional concerns. Whereas the fact is that the consequences of global climate change, including sea level rise due to the melting of Greenland ice sheet and altered weather patterns, in the Arctic have global outreach and implications. Having noted that, the question as to what entails or qualifies as 'India's Arctic engagement needs some critical reflection. Is it the engagement with Arctic issues (ecological, geopolitical, economic, strategic) or with Arctic Rim States (including bilateral relations) or with circumpolar civil societies and organisations like Arctic Council and Arctic Circle? No less important is the question of how circumpolar Arctic issue and values are defined and differentiated from non-Arctic issues and values. What added values will India bring to the table, both individually and collectively, as one of the select few Observers to the Arctic Council remains to be seen.

Ms. Sulagna Chattopadhyay, Chief Editor, *Geography and You*, was the first speaker of the session. She stated that India has two footholds in Arctic -first is the scientific research and second, is its interest in oil and gas exploration. India has been working in the Arctic for over a decade now. India, steadily building domain expertise in frontier realms of ocean and polar science over the past few decades, ex-

panded this engagement to the Arctic with the establishment of its first and presently the only research station, the *Himadri*, on the Svalbard archipelago in 2007. This serious scientific engagement did facilitate its entry to the Arctic Council in 2013 as an Observer. The second and the newest research centre is in Cambridge Bay, Canada. There are a total of 16 research stations in Ny-Alesund belonging to countries like Italy, India, the Netherlands, China, UK, France, South Korea, Japan, Germany, and Norway. India's research goals include atmospheric research, aerosol radiation, space, weather, food-web dynamics, microbial commonalities, glaciers, geology, and pollution among other fields. The tilt of NCPOR, India's nodal polar research centre, is towards the field of bio-technology.

In terms of oil and gas in the Arctic, India is keen to explore the sea route to import the energy resources from the Russian Arctic as highlighted by the Vladivostok to Chennai idea propounded during Prime Minister Modi's recent visit to Russia. India is working with Russia in the three fields identified in the Vankor area along with a 600-km pipeline on the coast of Taymyr Peninsula. India is also keen to be part of Russia's Vostok Coal project. In the global matrix, India has a stronghold in terms of its collaborations with Russia in the field of oil and gas, and in the domain of research with its involvement with the newly established research centre in Canada along with *Himadri* in Norway. The global matrix has four pillars – resources and economics, earth system, governance and institutions and, people and culture. While looking at China, Chattopadhyay said that the country has two ice breakers and has conducted at least half a dozen voyages in the Arctic for scientific research. China, in the past two decades, has made phenomenal development in Arctic and has declared itself a 'near Arctic' country where it wants to be recognised as a soft power. China has started to invest in institution building, norms and values to project itself as a credible player and thereby avoiding the impression that its presence in the Arctic is motivated only by its resources. China has a well-structured institutional set-up for its outreach to the Arctic –-the Polar Research Institute for China is the nodal institution and Chinese Arctic and Antarctic Administration is the policy-making institution. These institutions report to the State Oceanic Administration which then reports to the Ministry of Land and Resources. While talking about Iceland-China partnership, she said that this partnership began with Chinese investments in healthcare and geothermal, however, post 2011, the scope of investments has expanded considerably to include infrastructure, energy, resources and telecommunication. In case of Norway, the partnership began in 1954. Howev-

er, due to several roadblocks in the relations (Dalai Lama and Liu Xiabo) the bilateral relations were frozen. Despite this the scientific cooperation carried on. Talking about the importance of NSR for China, she said that 90 percent of China's trade is by sea and therefore the importance of NSR can be seen from that perspective. Avoiding the Malacca dilemma and ensuring China's energy security are the goals that China seeks to address through NSR. Therefore, China appears to be the largest beneficiary from the NSR.

Talking about India's road map, she said that India needs to look out for partners to pursue its national interests in the changing Arctic. She identified three limitations to India's role as an Observer in the Arctic Council: India can only engage in working groups; it cannot initiate any proposal on its own but must get a permanent membership to initiate it; and third, financial contribution cannot exceed financing by any Arctic state. India needs more research in this area, and there is a need of more manpower as NCPOR has only two researchers dedicated to this area. There is also a need to have dedicated budget to bolster and steer India's research. India needs to diversify research potential beyond the current stations and current locations of study in the existing area. To have a stronger Arctic Council role, India needs to create a nodal body to enhance scientific funding and propel private investments and stakes. India also needs to collaborate in multi-level and multi-country mode and organise high-level delegations for better posturing and visibility. It needs to round up its capacity by creating a repository of students who are in engaged in polar research in India and abroad.

Dr. Suba Chandran, Professor and Dean, School of Conflict and Security Studies, NIAS, Bengaluru in his presentation titled 'Arctic is not Far: Towards an Indo-Arctic' said that there were three hypotheses to his study. First, Arctic may be geographically far, but it has already come closer to India in terms of economic, environmental, energy, S&T and strategic issues. This is so because there have been multiple scientific studies that link the changing monsoon pattern in India to that of the changes in the Arctic region. This also stands true for the Himalayan region, which is profoundly affected by the changes in the Arctic. In terms of the maritime issues, he said that emphasis must be on the coastal security due to increasing sea levels, not only for India but also for its neighbours like Maldives, Bangladesh etc. Similarly, in advancing its space programme, there is a strong belief within the scientific community that establishment of stations in the Arctic will help India

synthesise data better. Changes happening in the Arctic will continue to impact India in several ways.

Second, if India has to be seen as an Arctic power, it has to be recognised as a country that is present in the Arctic, and not 'looking' at it. Chandran said that the idea of 'Indo-Arctic' is a geographic construct linking India with Arctic. To become an active player in the region, it would be beneficial for India to collaborate with the Asian countries like Singapore, South Korea and Japan, who have established themselves as key stakeholders in the region and have comprehensive policies towards the Arctic. Another way that India can make a mark in the region is through its support of Indo-Arctic values. This is where India can use its strengths to push forward its footprint in the region. He said that these values, which need not be very specific ones, could be anchored in the principle such as global commons, and respect for diversity, in which India has much experience. Another crucial aspect of India's Arctic engagement could be looking beyond big countries in the region and focusing on the smaller ones, like Denmark, Iceland and Norway. This way it would be easier to arrive at consensus for further cooperation on issues of mutual interest. Third, if India has to go to the Arctic, it has to bring Arctic to India. He said that this can be accomplished by bringing various Arctic Council fora to India, which would also lead to enhanced capacity building. India can also create Arctic Chairs for targeted research in various disciplines. He added that India can also hold annual dialogue on Arctic to formulate its future course of action in the region, which should include all the relevant stakeholders from academia, science, and strategic circles.

In the discussion that followed, it was pointed out that the engagement of India in the Arctic is older than the Svalbard Treaty; rather it goes back to works of Bal Gangadhar Tilak titled 'The Arctic Home in the Vedas'. It represents a fine testimony that the Arctic has been in India's imagination for a very long time. India has been keen on not only multi-polar world in the international system but also a *multi-polar polar world*, both in terms of knowledge-power- interface and interplay. Another comment related to the advocacy groups related to the Arctic apart from the governmental organisations. It was pointed out that groups like Green Peace etc. are responsible for bringing critical issues like environmental degradation and pollution in the Arctic to the forefront and are doing a good job at it, and whether it is liked by the countries or not is another issue altogether. The distinction between Arctic Council and Arctic Circle was also pointed out during the discussion. It was

clarified that the Arctic Council is an intergovernmental body - with Arctic littoral states as permanent members, indigenous groups and several observer states - limited in its mandate and the Chair rotates between the permanent members, which determine the direction of the Council. In contrast, Arctic Circle is a non-governmental and an open platform which allows anybody who wants to actively participate in the issues relating to the region.

It was also pointed out that there has been a growing emphasis on enhancing cooperation and interaction on the issues related to the indigenous people. There is also an Arctic Indigenous Dialogue between the indigenous peoples of circumpolar Arctic and indigenous people in other regions of the world. There is substantial indigenous population present in the Himalayan region, but the problem with China is that it has great difficulty in allowing its indigenous communities to engage with other indigenous people. India could move quickly into this framework of Arctic indigenous dialogue and thereby bring the different experiences together into this dialogue. It would be a fascinating exercise to learn from different experiences. This is one area which needs to be explored. The term Indo-Arctic needs to be trademarked to express the Indian commitment to the Arctic. It could also be Himalayan-Arctic which could highlight the work done by India in the region. It was also pointed out that it would be misleading to include European Union as part of the Arctic Council as Russia would never allow the EU to become part of the Council. The EU for its part can finance scientific research and projects, but it cannot be a major Arctic player. Similarly, NATO can also never be a major Arctic player because it could then lead to the emergence of the cold war. The nation-states are still the bigger players in the Arctic as compared to the regional and international organisations.

Valedictory Session

Dr. T.C.A Raghavan, Director-General, ICWA in his closing remarks, after thanking H.E. Olafur Ragnar Grimsson and the participants, said that the Arctic is too important to be left only to the scientists.

At the outset, in his special remarks, Dr. Arvind Gupta, Director, Vivekananda International Foundation, said that India should be fully engaged in the Arctic and it is important for the country as emphasised by H.E. Olafur Ragnar Grimsson throughout the seminar. Gupta said that India should focus on Grimsson's suggestion and work towards it. Highlighting India's significant contribution to the world

and its further responsibilities to bring the world together, he spoke about the concept of "Vasudeva Kutumbakam" where he explained that since the *Mahaupanishad* times, the world is taken as one family. India's Prime Minister Narendra Modi has been emphasising on this aspect of "Vasudeva Kutumbakam", which is very relevant in contemporary times because of challenges such as environmental degradation and global climate change. These challenges are intrinsically interlinked and impacts both human life and bio-diversity.

During the 'Global Hindu-Buddhist Initiative for Conflict Avoidance and Environment Consciousness Dialogue' in 2019, religious leaders from all over the world discussed peaceful co-existence, inter-religious understanding and interdependent sustainability to address the two critical issues that humankind is faced with, namely, conflict avoidance and environmental degradation. Interconnection in the Arctic can be seen from this perspective, and India should be a part of it because India has always been a promoter of the kind of connectivity compressed in the term i.e. "Vasudeva Kutumbakam". Gupta also highlighted Arctic's importance to India since ancient times by mentioning the book "The Arctic Home in the Vedas" by Bal Gangadhar Tilak. He pointed out the trajectory of India's connection with the Arctic since the Vedic ages and not just through the Svalbard Treaty of 1920 or the Observer status of India in the Arctic Council since 2013.

He pointed out that the imperative of India's Arctic involvement is yet to appear on the agenda of policymakers or for that matter in popular consciousness. It is important for the researchers to also build a persuasive case for the foreign policy and security establishment to get interested in Arctic affairs, as China has done. China is trying to have an expanded presence in the Arctic. The Russian governors are interested in the Chinese investments in the Arctic. He spoke about the inevitability of major geopolitical transformations in the High North with the melting of the Arctic sea ice. Both Russia and the US are facing challenges in the region. Russia-Norway relations too are having problems due the restrictions imposed by Oslo on Moscow's activities on the remote islands of the Arctic, which comes under Norway's jurisdiction. Russia is focusing on the northern side of the Arctic, the permafrost area. China is claiming itself to be a 'Near Arctic' state and has introduced its 'Polar Silk Route' initiative. Russia and China are coming together in the Arctic, which is a current reality to reckon with. The Russian governors are interested in Chinese investments. With all these developments and tensions between East and

West, Arctic could become a hotbed of geopolitical competition even if the Arctic Council wants to keep it out.

India's scientific research in the Arctic is important because of the link between melting ice due to climate change and monsoon patterns. Global commons collective study on this aspect will be important. India has the abilities and the compulsion. However, Indian activities have not been scaled up and 90 per cent of the official statements of India deal with the scientific aspects of the Arctic. India's engagement with the Arctic needs to be broadened and deepened. He said that India needs to step out of this narrow domain and focus on political, geostrategic, geoeconomic, academic etc. aspects of the Arctic. India needs an integrated policy. Dr Gupta made the following recommendations:

a) Though an Arctic policy is still not there, conditions for one are visible. India needs to have more engagements with other Arctic platforms such as Iceland's Arctic Circle.

b) At the official level, India should make Arctic the central talking point with all the Arctic Council members. There should be a country-wise policy.

c) Even if collaborations with the Arctic members seems difficult in some sectors such as the mineral resource sector, India should continue to cooperate with countries like Russia, Greenland and Iceland. India has hydrocarbon engagements with Rosneft. New Delhi has its equity and must have more investments of such kinds. India should join other aspect of hydrocarbon explorations.

d) Sustainable development is another area along with the indigenous communities of the Arctic, where India can collaborate with other members in the region. India has considerable experience in both sustainable development and indigenous community.

e) Space can be another area of cooperation between India and the Arctic member states. India's space agencies are collecting a lot of data that might be useful to the Arctic Council. New Delhi can share it free of cost. ISRO can have a downloading station of data in the region which can help in search and rescue as well as in the science and research domain.

f) India needs to bring the Arctic in its foreign policy domain.

g) In the maritime domain, India's experience in seafarers and sea skills is well known. The Arctic states need seafarers and seafaring skills where India can contribute. India can collaborate with countries like Russia to construct ice-breaker vessels. This will also bring business to shipping companies.

h) In the security domain, India has good relationship with all the Arctic Council members and New Delhi can play an important role in promoting peace and security in the region.

i) India's National Security Council (NSC) should take the initiative of developing the Arctic policy as it works closely with Prime Minister's Advisory board. If the NSC can bring the scientific and economic aspects together then India can have an Arctic policy. Track 2 dialogues meanwhile could provide a useful platform for the government for the same.

In the Valedictory Address, Mr. Dagfinnur Sveinbjornsson, CEO of Arctic Circle, spoke about the importance of the Third Pole of Himalayas. He said that this topic was discussed in one of the Arctic Circle meetings and it is referred to as the 'White Spot'. He spoke about the Hindukush Himalaya region having received little attention, including from India. He said that India should focus on it.

In 2010, China spoke about some research on the Tibetan plateau but it was sparse. In India, there are few glaciologists and this hampers research on this subject. During this period, the major emphasis of research on the Third Pole has been science. However, more recently, the discussion on the Third Pole organised by the Arctic Circle has been expanded to include other issues such as the impact on the Third Pole countries of the melting of ice, global climate change etc. Sveinbjornsson said that it was important that the information on the Third Pole as well as the consequences of the climate change reaches the general public. The Arctic Circle started a series of meetings with the Third Pole countries such as India, China, Myanmar, Nepal, Bhutan and Bangladesh. The subjects that were discussed went beyond the scientific sectors. There has been a growing focus on the systematic efforts to design a framework for a more dynamic collaboration, where it would be possible to create dynamic and open exchange of information and practices. The 2019 Hindu Kush Himalaya Assessment report has discussed various pertinent matters facing these countries and their overall impact within a larger context. Though the Arctic and the Himalaya

cannot be compared but the assessments that were derived from the Arctic monitoring data to see how the climatic changes are affecting the Hindu Kush Himalaya are important and should be addressed. The three important challenges that need to be addressed are the following:

a) It will be important to increase the pace and improve the quality of scientific research on the nature and consequences of climate change in the region;

b) A prerequisite for addressing the emerging challenge is a greater regional and international collaboration in the pursuit of scientific knowledge, and sharing of data and information. Information and scientific understanding established in one country can have fundamental implications for the solution of problems and challenges in another country;

c) It will be necessary to make special efforts to bridge the divide between science and policy and to establish communications between the realm of science and \ of policy.

There is a need to create a multi-layered institutional framework such as the Arctic Circle to address the challenges faced by the Third Pole Himalayan countries. The five-key issue-areas that demand and deserve attention are:

a) Ensuring greater collaboration in research on the economic, social, human and cultural challenges presented by climate change.

b) Improving dialogue and information sharing between diverse fields of science and expertise.

c) Bringing together on common platforms national and regional leaders, policymakers and officials as well as scientists, experts and representatives of the local populations and indigenous communities.

d) Making the scientific publications, including reports, more accessible to both general readership and political and policymaking communities.

e) Creating a venue to connect institutions, communities and authorities from across the region with a special focus on those most adversely affected by the retreat of the glaciers, the transformation of the water systems and other consequences of climate change.

Mr. Sveinbjornsson suggested that the Third Pole Himalayan countries can take the Arctic Circle, with its flexible framework, as a useful platform to discuss and deal with some of these challenges. Also, environmental challenges present collective opportunities to all the countries in the Third Pole region to collaborate and cooperate.

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