India and the Arctic: Evolving Engagements

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Introduction

The Arctic region that is home to eight nations (Canada, the United States, Russia, Finland, Sweden, Norway, Iceland, and Denmark that represent Greenland and Faroe's islands and Iceland) has become a topic of discussion ever since the reduction of the ice-cap in this region has been aggravated by climate change.

As the ice-cap reduces, it opens the region for activities for various environmental and scientific studies¹ and commercial activities such as terrestrial and offshore mining for minerals² and petroleum, shipping, tourism, infrastructure development and exploitation of fishes. In addition, access to the biodiversity of the region, understanding the biogeochemistry of the Arctic sea-ice, and access to numerous marine species, most of which are unknown, have now become possible. The ice-cap reduction has opened trade routes connecting the seaports of East Asia with Europe (by the Northern Sea Route) and the western coast of America (by the Northwest Passage).

This growing interest has ensured the involvement of other world nations in the region, so much so that 13 of them have been granted Observer status in the Arctic Council and allowed the establishment of numerous permanent research stations in the Arctic region.³ The members of the Arctic Council and those with Observer status as of 2021 are seen in Table 1.

The available resources and varying strategic interests of nations in the Arctic have created a geopolitical competition for control and possible conflict⁴ and militarisation⁵ to preserve their respective interests. Though most of the

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academic literature regarding this is focused primarily on the activities of China in the Arctic, the evolving engagement of India has been debated little. The recent 'Arctic Policy of India', however provides the contours of India's engagement with the region and is considered a step towards developing a whole-ofgovernment approach.

It is with this understanding that the present discussion aims to provide a broad-brush view of India's growing activities in matters Arctic with a focus on improving its future prospects in the region.

India's Engagement in the Poles

India's engagement with the Arctic is not new. Their engagement dates back to the 1920s as a part of the British Empire when the Svalbard Treaty was signed.⁶ However, India's involvement with the Poles began in true earnest only in 1981⁷ when it launched its expedition to the South Pole (Antarctica) to study the physical and environmental changes of the Earth and then established the research stations 'Dakshin Gangotri' in 1983, followed by 'Maitri' in 1989 and 'Bharati' in 2012. These expeditions were motivated by an interest to counter territorial claims on Antarctica by some nations for possible mineral exploration and commercialisation and India's interest to study the impact of the Antarctic on India's lifeline, its monsoons.⁸ What began as a scientific expedition gave India access to international forums and an opportunity to prove its dominance in faraway expeditions.

The tryst with the South Pole (Arctic) began in 2007 with the launch of the International Polar Year (IPY),⁹ which allowed the Indian scientists to camp at the International research village at Ny-Alesund on Spitsbergen Island. The camp that began with studying shrinking snow and ice-cap in the Poles, the linkage of the Poles and the rest of the Earth and the resilience of local communities to the environment and social change allowed India to establish their dedicated research station 'Himadri' at Ny-Alesund in 2008 to study climate change and the relationship between the Arctic climate and the Indian monsoon. This was followed by the deployment of a multi-sensor underwater moored observatory IndArc in the Kongsfjorden Fjord in July 2014¹⁰ and the Gruvebadet Atmospheric Laboratory at *Ny-Ålesund* in 2016.¹¹

Strategic Interest of Arctic Nations

If one studies the Northern Sea Route (NSR) and the evolving strategic interest of the Arctic nations along this route, one notices that the primary interest of the

Arctic states (8)	Canada, Denmark (representing Greenland and Faroe Islands), Finland, Iceland, Norway, Russia, Sweden, the United States (US).
Observer states (13)	Germany, the Netherlands, Poland, United Kingdom (UK) (1998)
	France (2000)
	Spain (2006)
	China, India, Italy, Japan, South Korea, Singapore (2013)
	Switzerland (2017)

Table 1: Members of the Arctic Council as on 2021

nations is that of access to hydrocarbons and other mineral resources of this region and the ability to diversify their trade in terms of markets while reducing travel time to European markets. For countries like China, the route is not only economical but also allows them to overcome the Malacca Dilemma.¹² On the other hand, countries like Russia see the opening as a means of integrating their Arctic territories and cities with the global economy.

It is envisaged that the NSR would allow the movement of nearly 50 million tons of hydrocarbons from coastal and offshore areas of the Barent and the Kara seas, nearly 5 million tons of minerals such as nickel from Norilsk (Russia) and ironore from Scandanavia and an unknown volume of containers by 2030.

While the strategic interests of nations have increased their involvement in this region, numerous challenges make these involvements difficult. These challenges evolve from the intention of exploiting the resources of this Pole, unlike that in Antarctica, which is protected by the Madrid Protocol of 1991(which provides environmental protection to the Antarctica Treaty). Such an interest has resulted in disagreements regarding overlapping claims by the Arctic littorals, thereby forcing the militarisation of the region. This is further fuelled by the increasing involvement of Observer states, thereby upsetting the existing delicate balance amongst nations of this region. In addition, with the possible opening of sea routes, there is a risk of pollution and piracy, which would need to be addressed as the volume of commercial ships on this route increases.

India's Evolving Engagements

On realising the importance of the Arctic and the growing geopolitics of other nations in the region, India too has begun to increase its engagements here. After participating in the IPY and establishing the Arctic research base at Ny-Ålesund, in 2012, India was elected to the Council of the International Arctic Science Committee (IASC)¹³ and subsequently granted observer status to the Arctic Council in 2013 and then re-elected to the Arctic Council in 2019.¹⁴ In addition, some steps taken by India to increase its involvement in the Arctic are:

(a) *Establishing a Scientific nodal agency.* In 2018, the National Centre for Antarctic and Ocean Research (NCAOR), established in 2000, was rechristened as the National Centre for Polar and Ocean Research (NCPOR), thereby indicating the growing interest of Indian policy-makers towards both the Poles.

(b) *Bilateral Scientific research cooperation*. India established the Norwegian programme for research cooperation (INDNOR) in 2010 to study international political issues, environment and climate, clean energy and social development.¹⁵ India also signed a Memorandum of Understanding (MoU) with Sweden in Dec 2019 for cooperation on Polar Science¹⁶ and another one with Polar Knowledge Canada (POLAR) in Feb 2020 for scientific collaborations.¹⁷ These agreements indicate the interest of India to strengthen science and technology in the region as it has done in Antarctica.

(c) *Business opportunities*. With an intention to increase business with the nations of the region, Indian companies were permitted to invest in the Arctic in energy and minerals, and ship LNG from Russia in 2018.¹⁸ Accordingly, ONGC Videsh bought a 26 per cent stake in Russia's Vankorneft and 20% in Sakhalin-I. In addition, a Joint Venture between Coal India and Vostok Coal was established to mine coal in the Arctic.¹⁹

(d) *Cooperation with Russia.* To increase trade, a maritime route is being established between Chennai and Vladivostok.²⁰ This

link would provide increased access for Indian goods to Russia. Similarly, for increased access to the region for scientists, India and Russia have agreed to set up a research station in Russia.²¹

(e) *Diplomacy through military engagement*. Since the military has been used as a tool to shape foreign policy by India for many years,²² the friendly visits of Indian Naval ships have been maintained in this region. In 2013, INS Sindhurakshak was the first submarine to sail in the Arctic Sea.²³ In 2016, three IN ships, Sahayadri, Shakti and Kirch, visited Vladivostok and in 2019,²⁴ while INS Tarkash visited 4 Arctic nations viz. St Petersburg (Russia), Began (Norway), Karlskrona (Sweden) and Helsinki (Finland)²⁵ on the same visit.

Though India's engagements in this region have been ongoing and evolving, some researchers²⁶ have often blamed these involvements to be either tilted towards treating the Arctic as a global common²⁷ or the other extreme of being a means to achieve its own interest.²⁸ However, India has maintained a middle path of forging relationships with the Arctic nations in science and environment to meet its growing demand for resources on the lines of 'Vasudhaiva Kutumbakam' (The World is one Family). In order to remove this ambiguity in appreciation, the Government of India released India's Arctic Policy in March 2022²⁹ after debating and refining the content of the draft policy originally released in Dec 2020.³⁰

India's Arctic Policy

India's Arctic Policy,³¹ as released in March 2022, is considered as a timely policy that provides a broad direction to its policy-makers on the contours of India's engagement with this region. While the policy may not be considered perfect, it is surely a positive first step towards providing a whole-of-government approach to India's engagement with the region. Eventually, it would help raise awareness about the Arctic in India and abroad, bringing greater synergy amongst stakeholders to work together for the greater good of the Arctic region.

The policy aims to enhance India's cooperation with the Arctic region, harmonise polar research with the Himalayas, increase understanding of the Arctic region, encourage international efforts to combat climate-change and protect the environment, and advance studies of the Arctic in India. To achieve these targets, it uses the six pillars of science and research, climate and environmental protection, economic and human development, transportation and connectivity, governance and international cooperation and national capacity building.

As mentioned, while the Indian government has released an 'Arctic Policy' for India, it provides only the basic contours for the policy-makers and for the entrepreneurs of the nation. Since the devil is usually in the details, which currently are still at the implementation stage, the following are considered as an essential to ensure that this policy moves from being merely a policy to implementation. Some of these recommendations are:

(a) *Need of a desk in MEA*. Currently, 8 Arctic nations and 13 observer states are associated as a minimum with the activities in the Arctic. All these states are handled by different desks in the MEA, and a holistic picture related to the Arctic cannot be appreciated when taking decisions. To do so, a single desk that deals with the Arctic issues, including the need of an 'Arctic ambassador/ representative' who can voice India's perspective on Arctic affairs, is considered essential. This desk and ambassador can be supported by a dedicated expert committee to plan, monitor, steer, implement and review India's Arctic activities as proposed in the Arctic Policy.

(b) *Encourage scholarship*. In order to ensure that the understanding of the Arctic region increases in India, it is essential that research fellowships are constituted. This could be done akin to the Prime Ministers Research Fellows (PMRF) scheme under the aegis of NITI Aayog. In order to further the awareness about this region university level research through MoUs, conferences and conventions need to be encouraged while ensuring that the bureaucrats, policy-makers and thinkers are educated alike in issues related to the Arctic.

(c) *Scientific*. Currently, India has its scientific station in Norway, with some future collaboration planned with Russia and Canada. However, it is essential that India collaborates with Finland, Sweden and Denmark to provide greater versatility to its scientific involvement in the region. This collaboration could be bettered by establishing satellite data-receiving Earth stations in these countries as done in Antarctica³² to encourage and support environment monitoring while making communication available and accessible even to isolated habitation in these countries.

(d) *Monetary and Technical support*. While India has the requisite human resources in matters technical for the Arctic, it needs to encourage the much required monetary support through the New Development Bank under BRICS.³³

(e) *Trade*. The main advantage of the reducing Arctic ice-cap is towards a shorter maritime trade route. Since India does not stand to gain from this shorter maritime route due to its geographical location, it needs to look at alternative means of encouraging trade with the Arctic nations. One possible method is to extend its 'Act East' policy beyond the Far East to the Arctic. Furthermore, it can look at extending its International North-South

Transport Corridor (INSTC) corridor beyond St. Petersburg to the Arctic,³⁴ Nordic³⁵ and the Baltic³⁶ nations. This would permit trade and cultural exchange, considered critical for greater cooperation and cohesiveness between two nations.

Science Diplomacy in India's Policy and Engagements in the Arctic

Science diplomacy is considered to consist of three linked strands. Science in Diplomacy, where science is used to inform and support foreign policy objectives; Diplomacy for Science, where diplomacy aims at facilitating international scientific and technical cooperation; and Science for Diplomacy, where scientific cooperation is used as a source of soft power to strengthen or foster foreign relations.³⁷

Accordingly, with an intention of using science diplomacy through creating international scientific partnerships by means of dialogue, negotiation, and cooperation with like-minded nations,³⁸ India aims to use its Arctic Policy to promote a peaceful world and address common issues such as climate change while ensuring sustainability in the region. It aims to do so by utilising its vast pool of scientific human resources and expertise in both Himalayan and Polar research combined with the best practices recommended by the Arctic Council.

Similarly, by using its strength and expertise in the digital economy and by creating data centres for commerce in the region, it would allow its businesses both public and private, to engage more closely in the fields of ports, railways, airports, mining, and mineral exploration. Another area where it aims to use science diplomacy is by way of encouraging interdisciplinary research through collaborative and innovative human resource development that would help generate innovative ideas through conferences, faculty and student exchange through academic programmes. Such an effort would help develop a better understanding of the region and its issues and help assist the indigenous communities of the Arctic to cope with issues such as the disruption of unique ecosystems and loss of traditional knowledge. All of these are aimed at a perfect understanding that the region is governed by numerous domestic laws, agreements, treaties, conventions, and customary laws, many of which are bilateral and accordingly demand that cooperation with nations of the region have to be within the framework of both national and international regulations.

Such efforts have ensured that for India in the near future, science and technology remain the backbone of all activities in the Arctic, thereby making science diplomacy an indispensable part of all multilateral and bilateral diplomatic engagements with nations of the region.

Conclusion

The impact of climate change is here to stay. While world nations have agreed to abide by the Paris Agreement, nations are far behind in meeting their commitments.³⁹ This has resulted in an enhanced impact on the Earth as climate changes. The melting of the Arctic ice-cap is one such impact that cannot be wished away. Once considered inaccessible, the Arctic is now hosting limited commercial ships only during the summers. The time is not far before a large number of ships move in these waters for a prolonged duration of the year. Currently, factors such as harsh weather conditions, high transit fees, administrative issues and lack of infrastructure in the form of ports and ice breakers impede the growth of the North Sea Route. However, it would not be long before these factors are adequately addressed and the accessibility in the Arctic increases phenomenally driven by both commercial and non-commercial drivers.

In the interim, it is essential that India continues to maintain its relevance in the region through science and trade activities and by taking baby steps in the direction as laid out by the 'Arctic Policy of India'.

Endnotes

- ¹ Ronald E. Doel et al., (2014), "Strategic Arctic Science: National Interests in Building Natural Knowledge – Inter War Era through the Cold War," pp. 60–80, doi:10.1016/j.jhg.2013.12.004
- ² Such as coal, iron ore, zinc, lead, nickel, precious metals, diamonds, gemstones, chromium, cobalt, copper, gold, iron, lead, magnesium, manganese, platinum, silver, tin, titanium, tungsten and zinc.
- ³ No list of research stations in the Arctic is available in academic literature. The closest one can get is the 'List of research stations in the Arctic' at Wikipedia available at https:// en.wikipedia.org/wiki/List_of_research_ stations_in_the_Arctic
- ⁴ Pay, VN and Calvo, G. (2020). Arctic Diplomacy: A Theoretical Evaluation of Russian Foreign Policy in the High North, *Russian Politics* 5, 105-130, https://doi. org/10.30965/24518921-00501005
- ⁵ Holland, A, Cunningham, N, and Vagg, X., (2013), Critical Security Challenges in the Arctic, American Security Project, September 2013, https://www.americansecurityproject. org/the-arctic-five-critical-securitychallenges/; Spohr, AP, Höring, da Silva, J., Cerioli, LG., Lersch, B., Soares, JGA. (2013), The Militarization of the Arctic: Political, Economic and Climate Challenges, UFRGS Model United Nations Journal ISSN: 2318-3195, p.11-70; Keil, K. (2014). The Arctic: A new region of conflict? The case of oil and gas. Cooperation and Conflict, 49(2), 162–190. doi:10.1177/0010836713482555
- ⁶ Treaty Database. (n.d). Treaty concerning the Archipelago of Spitsbergen, including Bear Island, <u>https://verdragenbank.overheid.nl/</u> en/Verdrag/Details/004293
- ⁷ Gad, SD. (2008). India in the Antarctic. *Curr. Sci.*, 95(2), p. 151, <u>https://www.currentscience.ac.in/Downloads/article_id_095_02_0151_0151_0.pdf</u>
- ⁸ Qasim, SZ. (1983). Scientific Report of the first Indian Expedition to Antarctica, *Department of OceanDevelopment*, http://14.139.119.23:8080/

dspace/bitstream/123456789/126/3/ INTRODUCTION.pdf

- ⁹ Allison, I., Béland, M., Carlson, D., Qin, D., Sarukhanian, E., and Smith, C. (2007). International Polar Year 2007-2008, WMO bulletin, 56 (4), <u>https://public.wmo.int/en/</u> bulletin/international-polar-year-2007-2008
- ¹⁰ Venkatesan, R, KP Krishnan, M Arul Muthiah, B Kesavakumar, David T Divya, MA Atmanand, S Rajan, M Ravichandran. (2016). Indian moored observatory in the Arctic for long-term in situ data collection, *The International Journal of Ocean and Climate Systems*, Volume: 7 issue: 2, pp. 55-61, <u>https:// doi.org/10.1177/1759313116642898</u>
- ¹¹ Thamban, M and Ravichandran, M. (2016). ESSO–National Centre for Antarctic and Ocean Research, *Proc Indian Natn Sci Acad*, 82 No. 3, July Spl Issue 2016, pp. 1145-1161, DOI: 10.16943/ptinsa/2016/48509
- ¹² Marc Lanteigne, (2008), China's Maritime Security and the "Malacca Dilemma", Asian Security, 4:2, 143-161, https://doi. org/10.1080/14799850802006555
- ¹³ A non-governmental, international scientific organisation that aims to encourage, facilitate and promote cooperation in all aspects of Arctic research including interdisciplinary research so as to promote greater scientific understanding of the Arctic and its role in the Earth system. See, <u>https://iasc.info/</u>
- ¹⁴ The Observer status of a nation if for a period of 5 years. After completion of 4 years, the observer nation is required to state its continued interest in being an Observer and is reviewed for its contribution to the work of the Arctic Council through various engagements at the level of Working Groups, Task Forces, and/or Expert Groups or in projects through an Arctic State or a Permanent participant.
- ¹⁵ RCN (The Research Council of Norway. (n.d). INDNOR – Norwegian Programme for Research Cooperation with India, <u>https://www.forskningsradet.no/en/about-the-research-council/programmes/indnor/</u>
- ¹⁶ DST. (n.d). India Sweden High-Level Innovation Dialogue announces several Collaborations, <u>https://dst.gov.in/indiasweden-high-level-innovation-dialogueannounces-several-collaborations</u>
- ¹⁷ MoES. (27 February 2020). NCPOR signs MoU with Canadian High Arctic Research Station on Polar Research, *Vigyan Samachar*,

https://vigyanprasar.gov.in/wp-content/ uploads/Vigyan-Samachar-MoES-News-2-27-Feb-20.pdf

- ¹⁸ Rosneft, (2020, February 05), "Rosneft Signs Contract with Indian Oil to Supply 2 Million Tonnes of Oil to India," Press Release, <u>https://www.rosneft.com/press/releases/ item/199701/</u>
- ¹⁹ Mint. (2020). NLC, Coal India form JV to develop solar and thermal power assets, *The Mint*, <u>https://www.livemint.com/</u> industry/energy/nlc-coal-india-formjv-to-develop-solar-and-thermal-powerassets-11593846508993.html
- ²⁰ N. Kapoor, (2020), "East Meets East: An Assessment of the Proposed Chennai-Vladivostok Maritime Corridor," ORF Occasional Paper 286, <u>https://www. orfonline.org/research/east-meets-eastan-assessment-of-the-proposed-chennaivladivostok-maritime-corridor/</u>
- ²¹ Rao, S. (2020). What Can India Bring to the Table as Great Power Competition Heats Up the Arctic?, *The Diplomat*, <u>https://</u><u>thediplomat.com/2020/09/what-canindia-bring-to-the-table-as-great-powercompetition-heats-up-the-arctic/</u>
- ²² IMD. (2015). Indian Maritime Doctrine 2009, updated online version 2015, *Ministry* of Defence (Navy) Document, <u>https://www. indiannavy.nic.in/sites/default/files/ Indian-Maritime-Doctrine-2009-Updated-12Feb16.pdf</u>
- ²³ Sakhuja, V. (31 Jan 2013). "Indian and the Melting Arctic", *Institute of Peace and Conflict* (IPCS), <u>http://www.ipcs.org/comm_select.</u> <u>php?articleNo=3804</u>
- ²⁴ IN. (2016). Indian Warships visit Vladivostok, Russia, https://www.indiannavy.nic.in/ node/14780
- ²⁵ Rao, S. (2020). What Can India Bring to the Table as Great Power Competition Heats Up the Arctic?, *The Diplomat*, <u>https://</u><u>thediplomat.com/2020/09/what-canindia-bring-to-the-table-as-great-powercompetition-heats-up-the-arctic/</u>
- ²⁶ Lackenbauer, P. Whitney. (2013). India's Arctic Engagement: Emerging Perspectives, Arctic Year Book 2013, <u>https://arcticyearbook.</u> <u>com/images/yearbook/2013/Scholarly_ Papers/1.LACKENBAUER.pdf</u>; Pronina, V, Eidemiller, KYu, Khazov, VK, Rubtsova, AV. (2020). The Arctic policy of India, IOP Conf.

Series: Earth and Environmental Science, 539, doi:10.1088/1755-1315/539/1/012047

- The global commons are areas where no nation exerts sovereign rights. Internationally, three global commons have been accepted. These are the deep seabed, the Antarctica and the outer space. The global common should not be confused with the "Common Heritage of Mankind" which holds defined territorial areas as areas for the future generations that should not be exploited by individual states or people. See, Gautam, PK., (2011, September 02), The Arctic as a Global Common, IDSA Issue Brief, https://www.files.ethz.ch/ isn/135416/IB_TheArcticasaGlobalCommon. pdf; Kumar, Kishore. (2013). Push for a 'Global Commons' Theory, Indian Foreign Affairs Journal, Vol. 8(1), http://www. associationdiplomats.org/publications/ifaj/ Vol8/vol8index.htm
- ²⁸ Nayak, S. and Suba Chandran, D, (2020). Arctic: why India should pursue the North Pole from a science and technology perspective? *Current Science*, Vol. 119(6), 25 September, <u>http://www.currentscience.</u> <u>ac.in/Volumes/119/06/0901.pdf</u>
- ²⁹ PIB, (2022, March 17), Union Minister Dr. Jitendra Singh releases India's Arctic Policy in New Delhi today, <u>https://www.pib.gov.in/</u> <u>PressReleasePage.aspx?PRID=1806993</u>
- ³⁰ Agarwala, N., (2021), India's Evolving engagements in the Arctic, Maritime Affairs: Journal of the National Maritime Foundation of India, 17:1, 10-25, <u>https://doi.org/10.1080/09</u> 733159.2021.1934969
- ³¹ --, (2022), India's Arctic Policy: Building a Partnership for Sustainable Development, <u>https://www.moes.gov.in/sites/default/</u><u>files/2022-03/compressed-SINGLE-PAGE-ENGLISH.pdf</u>
- ³² An Earth Station, in general, is required to collect data at a variety of spatial, spectral and temporal resolutions for Remote Sensing from satellites for the use, benefit and development

of humans. India's Remote Sensing Centre is at Hyderabad which unfortunately cannot acquire data from all its satellites (Geosynchronous Earth Orbit [GEO] and Low Earth Orbit [LEO] combined) due to its physical location. To increase the capability, the Antarctica Ground Station (AGEOS) was established in 2013 and is able to collect data from 10 passes per day per mission due to its location thereby increasing the data acquisition capability and improving the environment monitoring of the ocean and the atmosphere. See, <u>https://www.isro.gov.in/</u> antarctica-ground-station-earth-observationsatellites-ageos

- ³³ Lagutina, Maria and Leksyutina, Yana. (2019). BRICS countries' strategies in the Arctic and the prospects for consolidated BRICS agenda in the Arctic, *The Polar Journal*, DOI:10.1080/2 154896X.2019.1618559
- ³⁴ that include Canada, Denmark, Greenland, Finland, Iceland, Norway, Russia, Sweden and the United States
- ³⁵ that include Denmark, Norway, Sweden, Finland, Iceland, and the Faroe Islands, Greenland, and Åland
- ³⁶ that include Estonia, Latvia, and Lithuania
- ³⁷ The Royal Society, (2010, January 12), New frontiers in science diplomacy, <u>https://royalsociety.org/topics-policy/</u> <u>publications/2010/new-frontiers-sciencediplomacy/</u>
- ³⁸ Legrand T, and Stone D., (2018), Science diplomacy and transnational governance impact. *British Politics*,13(3):392–408. doi: 10.1057/s41293-018-0082-z
- ³⁹ Agarwala, N. and Polinov, S., (2021), Curtailing Anthropogenic Carbon Dioxide to Meet the Targets of the Paris Agreement using Technology Support Mechanisms, *Journal* of Human-centric Research in Humanities and Social Sciences, Vol.2, No.1, pp.1-24, <u>http:// dx.doi.org/10.21742/jhrhss.2021.2.1.01</u>

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