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Participation of India in the Arctic Council

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Abstract. The purpose of the article is to examine India's participation in the work of the Arctic Council by analyzing three criteria: the number of delegates sent by India to the meetings of the Arctic Council's Senior Arctic Officials; the number of projects in which India participates as part of the Council's working groups; the content of these projects and their distribution among the Council's groups. The lists of participants in the meetings of the Senior Arctic Officials and the reports India provided to the Arctic Council were studied to identify the indicators. A systematic approach was used as a methodological basis; methods included analysis of documents, comparative analysis, generalization and synthesis. The following conclusions were made on the basis of the results of studying the documents: the composition of India's delegation to the meetings of Senior Officials is represented by a smaller number of participants compared to the delegations of other Asian observer countries of the Council, which indicates that India's environmental policy in the Arctic is not fully formed. Compared to the period 2017–2019, there was a sharp increase in the number of projects in which India participates as part of its activities in the Arctic Council in 2019–2021, which is associated with its re-election as an observer, as well as with internal institutional changes in the country. India shows the greatest interest in the projects of the AMAP, CAFF and PAME working groups, which correlates with the national document published in 2013 and the international commitments made. India is participating in ACAP and SDWG due to its climate and energy policies. India does not participate in EPPR projects. India has not yet fully exploited its potential in the work of the Arctic Council. The practical significance of the work lies in the possibility of using its findings to further build a dialogue with India; its conclusions can form the basis of future scientific research.

Keywords: Arctic, Arctic policy, Arctic Council, working groups, observer country, climate change

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Introduction

Since the end of the 20th century, the Arctic has become an object of attention not only for the Arctic states, but also for non-Arctic players. This region has attracted interest from Asian coun-

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tries such as China, India, South Korea, Japan, Singapore, as well as European countries: Germany, Italy and others, including the European Union.

The main subjects of interest were minerals found both on the Arctic mainland and on its continental shelf, and the transport of goods through the Northern Sea Route and the Northwest Passage. In general, the following groups of interests of all states without exception can be distinguished: economic, geopolitical, scientific and environmental.

India is a leading country in many respects. In terms of population, India overtook China in spring 2023. The country ranks 3rd in the world in terms of energy consumption. In terms of carbon dioxide emissions, India is among the top three, along with China and the United States. In 2016, the country joined the Paris Climate Agreement. To fulfill its international commitment, India must switch from using coal to more environmentally friendly sources of energy. So, India has significant weight in the international arena. Its actions can affect the balance of power in the world and lead to certain consequences. Therefore, this article examines India's activities in solving environmental problems in the Arctic region through its participation in the Arctic Council.

In 2022, India published a strategic document "India's Arctic Policy — Building a Partnership for Sustainable Development" (hereinafter referred to as the Arctic Policy). New Delhi identified 4 national interests in it: scientific, environmental, economic and strategic, with scientific and environmental interests being prioritized by the authorities. The Arctic Policy also identifies 6 areas of activity in the region, including: science and research, climate change and environmental protection¹, which are related to research on the atmosphere and ocean, ice, marine ecosystems, biodiversity, geological, geophysical, geoengineering, environmental and biological works².

The Arctic is the climate-forming region of the planet, it is home to endemic animals and flora species listed in the Red Book. The Arctic ecosystem is unique.

In recent decades, climate scientists have been talking about climate change, which is occurring most rapidly in the Arctic. Due to the increase in air and water temperatures, permafrost is melting, the area of sea ice is decreasing, the number of dangerous hydrometeorological phenomena is increasing [1, Sun S., p. 351].

The consequences of such changes may have a dual nature. On the one hand, it is predicted that by the middle of the 21st century, the seas of the Arctic Ocean will be completely ice-free in summer, which means that unimpeded passage of vessels along the Northern Sea Route will be possible. In addition, access to mineral resources located on the continental shelf will be facilitated. All countries interested in the development of the Arctic see the benefit in this. On the other hand, due to melting ice and rising water temperatures, the waters of the world ocean will expand, which means that the coastal territories of many countries will be under the threat of flooding [1, Sun S., p. 351].

¹ India, Ministry of Earth Sciences. India's Arctic Policy: Building a partnership for sustainable development, March 17, 2022. URL: <https://www.moes.gov.in/sites/default/files/2022-03/compressed-SINGLE-PAGE-ENGLISH.pdf> (accessed 16 April 2024).

² Ibid.

India, increasing its activity in the Arctic, determines its presence in the region precisely by studying the impact of the consequences of climate change occurring in the Arctic on the economic and social spheres of Indian society. Firstly, the melting of Arctic ice raises the level of the world ocean and threatens to flood the coastal Indian territories with a population of over 100 million people [2, Raikov Yu.A., p. 26]. In addition, studies show that the increase in the intensity of transportation along the Northern Sea Route also leads to an acceleration of the melting of sea ice in the ocean [1, Sun S., p. 351]. Secondly, some scientists suggest that there is a connection between the melting of sea ice and the Indian monsoons. Thus, during the monsoons, India receives more than 70% of its annual rainfall. Indian agriculture, which is the main source of livelihood for approximately 58% of the country's population and provides about 20% of its GDP, directly depends on the monsoons³. If their system changes, strengthens or, conversely, weakens, both the India's economy and the social sphere of society may suffer, and the country's food security will be threatened [3, Zaikov K.S., Bhagwat D.V., p. 272]. Thirdly, scientific research on climate change draws attention to the link between the Arctic and the Himalayas. Although these two regions are geographically distant from each other, they are interconnected and have similar problems. Studying the causes of Arctic sea ice melting will help the scientific community better understand the glacial melting processes in the Himalayas, often referred to as the "third pole" and containing the largest reserves of fresh water after the North and South Poles. They are also the source of India's major rivers, including the Ganges and Brahmaputra, whose basins are home to about 600 million and 177 million people⁴.

The Arctic Council (hereinafter referred to as the AC) is a regional organization whose activities are aimed at addressing issues related to sustainable development and environmental protection in the Arctic [4, Voronchikhina D.N., p. 306]. The work of this institution is implemented within the framework of activities of 6 working groups: on the elimination of pollution in the Arctic (hereinafter referred to as ACAP), on the implementation of the Arctic Monitoring and Assessment Program (hereinafter referred to as AMAP), on the conservation of Arctic flora and fauna (hereinafter referred to as CAFF), on the prevention, preparedness and response to emergency situations (hereinafter referred to as EPPR), on the protection of the Arctic marine environment (hereinafter referred to as PAME) and on the sustainable development (hereinafter referred to as SDWG) [4, Voronchikhina D.N.; 5, Voronchikhina D.N.].

In 2013, India acquired observer status in this organization. Since the Arctic Council is authorized to implement various projects aimed at solving environmental problems of the region, and India is involved in its work, it seems relevant to consider India's participation in the activities of this organization and thus determine the country's role in solving environmental problems of the Arctic.

³ Bisen A. MP-IDSA Issue Brief — India's Arctic Policy: Building a partnership for sustainable development, March 17, 2022. URL: <https://idsa.in/issuebrief/india-arctic-policy-abisen-170322> (accessed 16 April 2024).

⁴ Ibid.

The *purpose* of the study is to examine India's participation in the work of the Arctic Council by identifying and studying three indicators: the number of delegates sent by India to the meetings of the Senior Arctic Officials, the number of environmental projects in which India participates as part of the Council's working groups, as well as the names and content of these projects and their distribution among the working groups of the Arctic Council.

The issue of India's participation in the Arctic Council remains not fully studied. Thus, Zhuravel V.P. [6, pp. 194–200] considered the interaction of Asian countries with the Arctic Council. Salygin V.I., Khubaeva A.O. [7, pp. 1216–1226], Tuinova S.S., Baxter K. [8, pp. 189–200], and Grigoriev N.A. [9, pp. 121–133] touched upon the issue of India's role in the Arctic Council in their works. Among foreign scientists engaged in the study of this issue, it is worth highlighting Singh M.⁵, Agarwala N.⁶, Sinha U. [10, pp. 113–126]. Hua J. [11, pp. 156–171] analyzed India's activities in the work of this regional institution.

A system approach was used as a *methodological basis*, as well as scientific methods such as document analysis and comparative analysis. Thus, the reports of India, which it sent to the Arctic Council as an observer, as well as the lists of participants in the meetings of the Senior Arctic Officials, are analyzed. The number of delegates sent to the meetings by India and other observer countries is compared. General scientific methods such as generalization and synthesis were also used.

The *relevance* of the study within the framework of this article is that the presented materials complement and develop theoretical and practical knowledge on the issue of India's participation in the work of the Arctic Council.

The *practical significance* of the study is that the presented materials are supposed to be used when reading courses in higher educational institutions; the results can also be used by Russian political actors for further building a dialogue with the Indian government.

Research results

In order to determine India's role in the work of the Arctic Council and the extent of its participation in the activities of this regional institution, the lists of participants in the meetings of the Senior Arctic Officials (hereinafter referred to as SAOs) were analyzed, starting from the meeting held on 22–23 October 2013 in Whitehorse, Canada, i.e. the first meeting after India received observer status, to the meeting held on 1–2 December 2021 in Salekhard, Russia. After this meeting, the documents adopted during the chairmanship of Russia (2021–2023), and subsequently Norway, are not available on the official website of the Arctic Council. Since the start of the special military operation in Ukraine, the AC member states have suspended interaction with the Russian Federation, and in general, after the transfer of

⁵ Singh M. India in the Arctic: Legal Framework and Sustainable Approach. The Arctic Institute. 2024. URL: <https://www.thearcticinstitute.org/india-arctic-legal-framework-sustainable-approach/> (accessed 16 April 2024).

⁶ Agarwala N. India and the Arctic: Evolving Engagements. Research Gate. 2022. URL: https://www.researchgate.net/publication/369176607_India_and_the_Arctic_Evolving_Engagements (accessed 16 April 2024).

chairmanship from Russia to Norway in May 2023, the activities of this organization have not resumed in their previous form. In February 2024, Moscow announced the suspension of annual payments to the Arctic Council ⁷. The consequences of such a decision by Russia will negatively affect the entire work of this regional organization, since Russia makes a significant financial contribution to the work of the AC and its working groups [5, Voronchikhina D.N.]. In addition, the reports of India submitted to the Arctic Council by the observer country were studied. There are only three reports from India on the AC website: for 2017, 2019 and 2021.

On the basis of the analyzed documents, three criteria were identified by which one can assess the degree of India's participation in the work of this organization: the number of delegates sent by India to participate in the meetings of the Senior Officials of the AC; the number of projects implemented within the framework of the work of a particular AC working group in which India participates; the name and content of environmental projects in the Arctic region in which India participates [5, Voronchikhina D.N., pp. 47–48], as well as their distribution among the working groups of the AC.

Number of delegates sent by India to participate in the meetings of the SAO AC

Table 1

Number of delegates sent by India to participate in the meetings of the SAO AC

No.	Place of meeting	Date of meeting	Number of delegates	Name of delegates
1	Whitehorse, Canada	22–23 October 2013	1	Verma Nirmal HoD
2	Yellowknife, Canada	26–27 March 2014	2	Verma Nirmal Kumar; Aisola Ravi Shankar
3	Yellowknife, Canada	22–23 October 2014	1	Arora Shammi India
4	Whitehorse, Canada	4–5 March 2015	No data	No data
5	Anchorage, USA	21–22 October 2015	2	Sandhu Taranjit Singh; Das Gourangalal
6	Fairbanks, USA	16–17 March 2016	1	Tarun Mohindra
7	Portland, Maine, USA	5–6 October 2016	0	-
8	Juneau, Alabama, USA	8–9 March 2017	1	Venkatesan Ashok
9	Oulu, Finland	25–26 October 2017	1	Milind Wakdikar
10	Levi, Finland	22–23 March 2018	1	Krishnan Kottekkatu Padinchati
11	Rovaniemi, Finland	30 October — 2 November 2018	1	Vani Rao
12	Ruka, Finland	13–14 March 2019	2	Vani Rao; Krishnan Kottekkatu Padinchati
13	Hveragerdi, Iceland	19–21 November 2019	No data	No data
14	online	17–19 November 2020	2	T. Armstrong Changsan; Vijay Kumar
15	online	16–18 March 2021	2	T. Armstrong Changsan; Krishnan Kottekkatu Padinchati
16	Salekhard, Russia	1–2 December 2021	2	Rahul Kumar Rakesh; Harveer Singh

⁷ Russia suspends payment of annual dues to Arctic Council, 2024. URL: <https://ria.ru/20240214/vyplata-1927224969.html> (accessed 16 April 2024).

Based on the data presented in Table 1⁸, it can be concluded that a total of 16 meetings were held from autumn 2013 to December 2021. Delegates from India attended 13 of them. The list of participants is missing for two meetings: Whitehorse, Canada, March 4–5, 2015, and Hveragerdi, Iceland, November 19–21, 2019. No representatives from India attended the meeting held in autumn 2016 in Portland, USA. This circumstance can be associated with the situation that occurred in March 2016, when the Indian authorities refused visas to the US Commission on International Religious Freedom⁹, which resulted in a slight cooling of relations between the countries. New Delhi sent 1 delegate to 6 of the 13 meetings, and 2 representatives to 7 ones. That is, India is represented in the Arctic Council by a delegation consisting of 1–2 people.

In May 2013, along with India, such countries as China, Japan, the Republic of Korea, Singapore and Italy acquired observer status. In this regard, let us consider the average number of participants represented by the delegations of these countries.

Table 2

Number of delegates sent by China, Japan, the Republic of Korea, Singapore and Italy to participate in the SAO meetings

Dates of meetings	Number of delegates				
	China	Japan	the Republic of Korea	Singapore	Italy
22–23 October 2013	2	2	3	3	1
26–27 March 2014	2	2	2	2	1
22–23 October 2014	2	2	2	2	2
4–5 March 2015	No data	No data	No data	No data	No data
21–22 October 2015	2	2	2	2	0
16–17 March 2016	2	2	2	2	2
5–6 October 2016	2	2	2	2	1
8–9 March 2017	2	2	2	2	1
25–26 October 2017	2	2	2	2	1
22–23 March 2018	2	2	2	2	1
30 October — 2 November 2018	2	2	2	2	1
13–14 March 2019	2	1	2	2	1
19–21 November 2019	No data	No data	No data	No data	No data
17–19 November 2020	2	2	2	4	1
16–18 March 2021	2	2	2	3	1
1–2 December 2021	1	2	2	3	3

⁸ Participant lists from the meetings held for 2013–2021. URL: <https://arctic-council.org/ru/> (accessed 16 April 2024).

⁹ India has refused to issue visas to the US government delegation. URL: <https://ria.ru/20160304/1384165033.html> (accessed 16 April 2024).

Table 2¹⁰ shows that the average number of delegates is 2 people. Since the meeting held in November 2020, there has been an increase in the number of participants from Singapore. This circumstance can be explained by the fact that the meetings of autumn 2020 – spring 2021 were held online due to the spread of the COVID-2019 viral infection in the world. Italy sends the minimum number of delegates — an average of 1 representative.

If we compare these indicators with those of India, it turns out that India sends, on average, fewer representatives than other Asian states that have achieved rapid growth in their economies, which may indicate that the Arctic policy in general and in the field of environmental protection in the Arctic is not fully formed. J. Hua came to similar conclusions in his study, writing: “India has not sent enough experts to the Arctic Council working groups since 2013, which has prevented it from influencing the creation of new rules. This is largely due to the minor role of the Arctic in India’s foreign strategy, which is one of the reasons why the Arctic policy was not published until 2022.” [11, Hua J., p. 166]. One cannot but agree with this position.

Number of environmental projects implemented within the framework of the Arctic Council working groups in which India participates

Table 3
Number of environmental projects implemented within the framework of the Arctic Council working groups in which India participates

Year	ACAP	AMAP	CAFF	EPPR	PAME	SDWG
2021–2023			1. Actions to conserve Arctic biodiversity; 2. Arctic Migratory Bird Initiative		1. Expert Group in support of implementation of the Framework for Action on Black Carbon and Methane	
number	0	0	2	0	1	0
Total: 3						
2019–2021	1. Geochemistry of mercury and emerging contaminants in the benthic zone of Arctic fjords and coastal waters of Svalbard; 2. Atmospheric aerosol studies and their	1. Long-term monitoring of Arctic fjords to study climate change; 2. Monitoring of Arctic precipitation; 3. Integrated monitoring of glaciers in Svalbard, Arctic; 4. Climate change and trends; 5. Pollutants.	1. Microbial diversity in different niches of Svalbard with a special focus on fjords and coastal waters; 2. Arctic Migratory Bird Initiative; 3. Arctic Coastal Biodiversity Monitoring Plan; 4. Arctic Invasive Species Strategy and Action Plan; 5. Actions to conserve Arctic biodi-		1. Arctic vessel traffic data; 2. Invasive species; 3. Underwater noise; 4. Black carbon emissions; 5. Marine debris; 6. Interaction with observers on shipping-related	1. Toolkit for Sustainable Energy in the Arctic; 2. Blue Bioeconomy in the Arctic

¹⁰ Participant lists from the meetings held for 2013–2021. URL: <https://arctic-council.org/ru/> (accessed 16 April 2024).

	characterization over the Arctic; 3. Platform for thematic research on black carbon.		versity.		issues.	
number	3	5	5	0	6	2
Total: 21						
2017–2019	1. Mercury geochemistry in sediments of Kongsfjord, Ny-Ålesund, Arctic; 2. Studies of atmospheric aerosols and their characteristics over the Arctic in the summer season.	1. Long-term monitoring of the Kongsfjord system of the Arctic region to study climate change; 2. Monitoring of Arctic precipitation; 3. Integrated monitoring of glaciers in Ny-Ålesund, Svalbard, Arctic.	1. Bacterial diversity in different niches around Ny-Ålesund, Svalbard; 2. Actions to conserve Arctic biodiversity; 3. Arctic Migratory Bird Initiative.		1. Expert Group in support of implementation of the Framework for Action on Black Carbon and Methane	
number	2	3	3	0	1	0
Total: 9						
2015–2017	1. Characterization of polar aerosols: initial processes and climatic impacts; 2. Biochemical assessment and characterization of biomarkers from Arctic fjord sediments; 3. Benthic studies of Kongsfjord, west coast of Svalbard, Svalbard.	1. Monitoring of precipitation in Arctic clouds; 2. Paleoecological reconstructions of late Pleistocene sediments of Kongsfjorden in the Svalbard region based on a multi-proxy approach; 3. Multi-proxy study of late Quaternary paleoclimate with emphasis on marine and terrestrial palynomorphs; 4. Sedimentological and geochemical studies of surface and subsurface sediments of lakes in the Crossfjorden and Kongsfjorden systems,	1. Functional diversity of heterotrophic bacteria in the water column and surface sediments of Kongsfjorden, with particular emphasis on those involved in the carbon cycle; 2. Long-term ecological monitoring of fjord ecosystems, Ny-Ålesund; 3. Effects of glacial runoff and associated Arctic freshening on microbial community structure: a case study in Kongsfjorden; 4. Soft-bottom meiobenthic fauna as an indicator of the functional character of selected Arctic fjords; 5. Investigation of		1. Understanding Arctic ice dynamics using Indian remote sensing satellite data; 2. Expert Group in support of implementation of the Framework for Action on Black Carbon and Methane	

		Svalbard - paleo-climatic consequences; 5. Climate change in the Quaternary and sedimentation patterns in the Ny-Ålesund area, Svalbard; 6. Mass balance and dynamics of individual glaciers of Svalbard, Svalbard; 7. Long-term monitoring of the Kongsfjord system of the Arctic region for studying climate change.	zooplankton ecology and planktonic food web dynamics in Kongsfjorden (using in-situ and satellite oceanography); 6. Primary productivity and bio-optical studies to understand the dynamics of Kongsfjorden and Krossfjorden in summer; 7. Actions to conserve Arctic biodiversity; 8. Arctic Migratory Bird Initiative.			
number	3	7	8	0	2	0
Total: 20						
2013–2015			1. Actions to conserve Arctic biodiversity; 2. Arctic Migratory Bird Initiative			
number	0	0	2	0	0	0
Total: 2						

When analyzing the number of projects in which India participates, the following circumstances should be taken into account:

- The official website of the Arctic Council contains data from only 3 reports: for 2017, 2019 and 2021.
- The section of the AC website that presents India as an observer country states that India has been participating in the implementation of 2 projects of the AC CAFF working group since 2013: actions to conserve Arctic biodiversity and the Arctic migratory bird initiative, and since 2015 the country has been a member of the expert group in support of implementation of the framework for action on black carbon and methane of the PAME working group ¹¹. However, these projects do not appear in India's reports. The author has included these projects in the table: 2 of them for the periods 2013–2015, 2015–2017, 2017–2019, 2019–2021, 2021–2023; 1 — for the periods 2015–2017, 2017–2019, 2019–2021, 2021–2023.

¹¹ Republic of India. URL: <https://arctic-council.org/ru/about/observers/republic-of-india/> (accessed 16 April 2024).

- India's 2017 report presents 17 projects¹² that are being implemented by Indian scientific institutions in the Arctic region. However, unlike the 2019 and 2021 reports, in which all projects in which India participates are divided into groups depending on the Arctic Council working group within which they are implemented, the 2017 report does not divide the projects into such groups, so the author has taken the responsibility of independently dividing India's projects into working groups depending on the subject matter of the project.

Thus, based on the data in Table 3¹³ and the circumstances mentioned above, the following conclusions can be made. Firstly, due to the absence of a report for 2015, it turns out that in 2013–2015, India participated in only 2 environmental projects of the CAFF working group. Similarly, for the period 2021–2023, the lack of data leads to the conclusion that India participated in only 3 projects during these years, which is most likely incorrect, since India's interest in the Arctic is only growing every year, which means that the country is interested in implementing projects, including in the field of ecology. India also prioritizes studying climate change in the Arctic and protecting the environment in the region. This area is also highlighted in India's Arctic Policy, adopted in 2022. Therefore, further detailed research on this issue requires India's 2023 report, which is not currently available.

Over the period 2015–2017, there has been an increase in the number of India's projects. Their total number is 20. For the period 2017–2019, one can see a decrease in the number of projects to 9. In 2019–2021, there is again an increase in the projects in which India is involved to 21 projects.

However, it is difficult to trust the data contained in the report for 2017 due to the fact that the projects implemented in the Arctic territories are not distributed among the working groups of the Arctic Council, and the table presented in the report is titled "Current projects of Indian institutes/universities in the Arctic region" [3, Zaikov K.S., Bhagwat D.V.]. In addition, the report does not contain information on three projects implemented by India from 2013/2015 to the present within the framework of CAFF and PAME, which are mentioned on the official website of the AC.

In the reports for 2019 and 2021, all projects are distributed among groups. As can be seen from the table, there was an increase in the number of projects being implemented from 9 in 2017–2019 to 21 in 2019–2021. Firstly, the sharp increase in the number of projects may correlate with the fact that in 2018, the specialized scientific institution of India responsible for conducting expeditions and other scientific activities at the Poles [4, Voronchikhina D.N.] changed its name

¹² Observer Activities report of Republic of India, 2017. URL: <https://oaarchive.arctic-council.org/server/api/core/bitstreams/f61dbf95-11fa-422e-b5a6-d42a1106001d/content> (accessed 16 April 2024).

¹³ Observer Activities report of Republic of India, 2017. URL: <https://oaarchive.arctic-council.org/server/api/core/bitstreams/f61dbf95-11fa-422e-b5a6-d42a1106001d/content> (accessed 16 April 2024); Observer Review report of Republic of India, 2019. URL: <https://oaarchive.arctic-council.org/server/api/core/bitstreams/dc6b5a0f-b571-4703-b603-f55dbb984643/content> (accessed 16 April 2024); Observer report of Republic of India, 2021. URL: <https://oaarchive.arctic-council.org/server/api/core/bitstreams/3b685e92-8caa-4e8a-b275-23491a9a4d1d/content> (accessed 16 April 2024).

from the National Centre for Antarctic and Ocean Research (NCAOR) to the National Centre for Polar and Ocean Research (NCPOR) [3, Zaikov K.S., Bhagwat D.V., p. 266]. The renaming of NCAOR to NCPOR indicates India's increased interest over the past five years in scientific research of the Arctic region, which is closely related to the study of the ecology, ecosystem, biodiversity of the Arctic, and climate change in the region. Secondly, 2018 is the year when India and the Arctic states, namely Russia and Canada, issued joint statements in bilateral meetings, which discussed the development of mutually beneficial cooperation in the Arctic, including joint scientific research on issues such as melting ice, climate change, marine life and biodiversity¹⁴. Thirdly, in 2019, India was re-elected as an observer to the Arctic Council, which allowed it to establish itself in this role and increase its presence in the implementation of projects carried out within the framework of the AC working groups.

The increase in the number of projects may indicate India's increased interest in participating in the Arctic Council, and therefore in addressing environmental issues in the Arctic region.

Environmental projects of the Arctic Council working groups, in which India participates

The conclusions on this criterion are based on the analysis of the data in Table 3¹⁵.

It is worth noting that India does not participate in the projects implemented by the Emergency Prevention, Preparedness and Response working group (EPPR). The largest number of projects is implemented by India within the framework of the working groups on the implementation of the Arctic Monitoring and Assessment Programme (AMAP) and the Conservation of Arctic Flora and Fauna (CAFF) [4, Voronchikhina D.N.]. AMAP has focused its activities on measuring and monitoring the impact of pollutants and climate change on ecosystems and human health in the Arctic. CAFF focuses on conservation of Arctic biodiversity and the sustainability of Arctic flora and fauna. If we look at the names of the projects in which India is participating, under AMAP, all of them are devoted to studying climate change issues in the Arctic, including through monitoring certain indicators (precipitation, fjords, glaciers, etc.). Within the framework of CAFF, projects are related to the study of biodiversity, microbial diversity, invasive species, and migratory birds in the Arctic.

In 2019–2021, India focused on the projects of the PAME working group (Protection of the Arctic Marine Environment). 6 projects out of 21 were implemented within the framework of the

¹⁴ Ministry of External Affairs. India-Canada Joint Statement during State Visit of Prime Minister of Canada to India, February 23, 2018. URL: <https://www.mea.gov.in/bilateral-documents.htm?dtl/29512/indiacanada+joint+statement+during+state+visit+of+prime+minister+of+canada+to+india+february+23+2018> (accessed 16 April 2024); Ministry of External Affairs. India-Russia Joint Statement during visit of President of Russia to India, October 05, 2018. URL: <https://www.mea.gov.in/bilateral-documents.htm?dtl/30469/indiarussia+joint+statement+during+visit+of+president+of+russia+to+india+october+05+2018> (accessed 16 April 2024).

¹⁵ Observer Activities report of Republic of India, 2017. URL: <https://oaarchive.arctic-council.org/server/api/core/bitstreams/f61dbf95-11fa-422e-b5a6-d42a1106001d/content> (accessed 16 April 2024); Observer Review report of Republic of India, 2019. URL: <https://oaarchive.arctic-council.org/server/api/core/bitstreams/dc6b5a0f-b571-4703-b603-f55dbb984643/content> (accessed 16 April 2024); Observer report of Republic of India, 2021. URL: <https://oaarchive.arctic-council.org/server/api/core/bitstreams/3b685e92-8caa-4e8a-b275-23491a9a4d1d/content> (accessed 16 April 2024).

activities of this group. The main objective of PAME is to protect and sustainably use the Arctic marine environment [12, Voronchikhina D.N.]. Here, India focused on the problems of shipping, marine debris, underwater noise, and emissions of black carbon and methane.

It was mentioned earlier that India has been participating in 2 projects within the CAFF framework since 2013 and in 1 project within the PAME framework since 2015.

On June 10, 2013, the Ministry of External Affairs of India published a document entitled “India and the Arctic”. The document emphasizes that climate change in the Arctic has redefined the status of the region and generated interest in it. The main interests of states in the Arctic are hydrocarbons, biological resources, a short route connecting the Pacific and Atlantic oceans, the impact of melting sea ice on local communities, marine ecosystems and climate change. India, on the other hand, highlighted scientific, environmental, commercial and strategic interests in the document. The main objectives of the research in the Arctic region are as follows: study hypothetical links between the Arctic climate and the Indian monsoon by analyzing sediment and ice core records from Arctic glaciers and the Arctic Ocean; monitor Arctic sea ice using satellite data to assess the impact of global warming in the northern polar region; study the dynamics and mass balance of Arctic glaciers, with particular attention to the impact of glaciers on sea level change; comprehensively assess the response of Arctic flora and fauna to anthropogenic activities¹⁶. As can be seen from the document, India has focused on climate change research in the polar region, as it is considered to have negative consequences for the country’s economy as well as for the biodiversity of the region. We cannot rely on the provisions of the strategic document “Arctic Policy” adopted in 2022 within the framework of this study, as we have data only from reports up to 2021.

That is, back in 2013, India identified issues that would be studied by Indian researchers in the Arctic. As we can see, the tasks set out in the document “India and the Arctic” resulted in participation in the projects of the AMAP and CAFF working groups.

Additionally, we would like to draw attention to the fact that in February 2020, the Conference of the Parties to the Convention on the Conservation of Migratory Species was held in Gandhinagar, India, where, among other things, the issue of migratory bird migration was considered¹⁷, which correlates with India’s participation in the Arctic Migratory Bird Initiative (CAFF). India’s participation in the PAME working group projects is motivated by India’s leading position in greenhouse gas emissions, which include carbon and methane. Despite this, at the end of 2020, India had made significant progress in meeting its climate change commitments made under the 2015 Paris Agreement, becoming one of the few countries and the only major economy to do so¹⁸. By 2023, India’s greenhouse gas emissions had fallen by 33%, faster than expected in 14 years,

¹⁶ India and the Arctic, 2013. URL: <https://www.uaf.edu/caps/resources/policy-documents/india-and-the-arctic-2013.pdf> (accessed 22 January 2024).

¹⁷ Gateway House. India at the Arctic Council, 2021. URL: <https://www.gatewayhouse.in/india-at-the-arctic/> (accessed 16 April 2024).

¹⁸ Ibid.

as renewable energy generation increased and forest cover expanded¹⁹. Some scientists believe that Arctic Ocean shipping is accelerating the melting of sea ice in the ocean [2, Xiuwen S., p. 351], which could eventually lead to the threat of flooding of Indian coastal areas. Therefore, this issue is also an object of India's attention in the framework of its participation in the projects of the PAME working group.

Black carbon and atmospheric aerosols are the subject of study within the ACAP working group with participants from India (2–3 projects), which can also be linked to the state's climate policy aimed at reducing greenhouse gas emissions. India is pursuing a consistent policy to reduce emissions, which should ultimately lead to zero greenhouse gas emissions. To achieve this, the country seeks to increase its renewable energy use; to improve energy efficiency in sectors such as transport, energy and electricity, industrial production; to switch to the use of electric vehicles; to preserve and increase its forest cover and biodiversity, and to apply reasonable natural resource management strategies²⁰.

India's climate and energy security are linked to the Sustainable Development Working Group (SDWG) projects: sustainable energy in the Arctic and blue bioeconomy in the Arctic. The Arctic is a favorable region for the development of alternative energy. It's not only hydrocarbons that the Arctic continental shelf is rich in. The Arctic region as a whole can be considered a leader in renewable energy development, with the share of electricity generated from renewable resources more than double the global average. Countries such as Iceland and Norway obtain almost 100% of their heat and power from renewable sources. The United States is actively working with partners across the region to share best practices and improve the region's overall energy resilience. In about 250 locations, diesel fuel is supplemented by locally available renewable energy sources such as hydropower, wind, solar, biomass, and marine hydrokinetic or geothermal energy. Alaska has played a leading role in integrating renewable resources into community-scale microgrids: more than 75 community energy grids are partially powered by renewable energy sources, including small hydropower, wind, geothermal, biomass, and solar systems²¹. India can adopt the experience of the Arctic countries in using renewable energy.

As we can see, the tasks of the working group on Emergency Prevention, Preparedness and Response (EPPR), related to assistance in prevention, preparedness and response to environmental and other emergencies, accidents, as well as search and rescue²², are not listed in India's documents, are not included in agreements with Arctic countries, and are not related to India's national

¹⁹ India succeeds in reducing emissions rate by 33% over 14 years — sources, 2023. URL: <https://www.reuters.com/world/india/india-succeeds-reducing-emissions-rate-by-33-over-14-years-sources-2023-08-09/> (accessed 16 April 2024).

²⁰ India's Steps Towards Net Zero Emission, 2024. URL: <https://www.hmel.in/blog/india-steps-towards-net-zero-emissions> (accessed 16 April 2024).

²¹ Arctic energy office, 2020. URL: <https://www.energy.gov/arctic/articles/arctic-energy-office-factsheet-energy#:~:text=As%20a%20whole%2C%20the%20Arctic,and%20power%20from%20renewable%20resources> (accessed 16 April 2024).

²² Arctic Council. Working Group on Prevention, Preparedness and Response to Emergency Situations. URL: <https://arctic-council.org/ru/about/working-groups/eppr/> (accessed 16 April 2024).

security. Therefore, India does not participate in the implementation of the EPPR projects. At the same time, it should be noted that India has the ability to provide assistance in satellite data transmission. For example, India has the South Asia Satellite, which could be used to monitor processes occurring in the Arctic region related to changes in the area of sea ice, permafrost, hydro-meteorological hazards, environmental disasters, as well as for the development of telemedicine²³. In 2024, a joint Indian-American satellite is planned to be launched to study the changing ecosystems on Earth, the mass of ice, the rise in sea levels due to climate change, intended for better management of natural resources and monitoring of hazards around the world, including the Arctic²⁴ [13, Kanagavalli S.]. The data from these satellites will help to obtain prompt, reliable, high-quality information on all the changes occurring in this region of the planet.

Conclusion

The paper reviewed and analyzed the documents of the Arctic Council, in particular the lists of participants in the meetings of the Senior Arctic Officials, and the reports of India submitted to the Arctic Council. On the basis of these documents, three criteria were identified that can be used to assess the extent of India's participation in the work of this organization: the number of delegates sent by India to participate in the meetings of the Senior Arctic Officials, the number of projects implemented within the framework of a particular working group of the Arctic Council [4, Voronchikhina D.N.], in which India participates, the name and content of environmental projects in the Arctic region, in which India participates.

Based on the data obtained for the first criterion, we can conclude that the Indian delegation consists of 1–2 representatives at the SAO meetings, which is less than the delegations of other Asian observer countries (China, Japan, the Republic of Korea, Singapore), represented by 2–3 participants. In this regard, we can conclude that India's Arctic policy on the protection and conservation of the Arctic environment is not fully formed.

Within the second criterion, we see a significant increase in the number of projects in which India participates through the AC working groups in the period 2019–2021 compared to the period 2017–2019 (9 versus 21). This suggests that India's interest in participating in Arctic Council environmental projects has increased.

Regarding the third criterion, India participates in the implementation of the projects of the AMAP, CAFF and PAME working groups, which correlates with the official document published in 2013 dedicated to India's interests in the Arctic, as well as with the international commitment adopted by India under the 2015 Paris Agreement on Climate Change to reduce greenhouse gas emissions. Participation in ACAP and SDWG is also associated with the climate security policy, to which the country's energy security, i.e. reducing greenhouse gas emissions and developing re-

²³ Venkatasubramanian K.V. South Asian Satellite to boost regional communication. 2017. URL: <https://pib.gov.in/newsite/printrelease.aspx?relid=161611> (accessed 16 April 2024).

²⁴ Kanagavalli S. Third pole's view on the north pole — India's Arctic Policy. The Polar Connection. 2022. URL: <https://polarconnection.org/third-pole-india-arctic-policy/> (accessed 16 April 2024).

newable energy, is added. The Arctic has great potential for the development of alternative energy sources, including natural gas, hydropower, wind and solar energy, and geothermal energy. Some Arctic countries have almost entirely switched to renewable energy, and India can borrow their experience and transfer some acceptable solutions to its territory. India is not interested in the projects of the EPPR working group, as the group's objectives do not intersect with ensuring national security of the country and are not enshrined in any of India's Arctic policy documents. At the same time, India has the potential to participate in the projects of this group, since the country has well-developed satellite communications and telemedicine. Therefore, it can be concluded that India has not yet fully revealed its internal resources for implementing activities in the Arctic Council.

In general, based on the analysis of the data, it can be stated that the role and degree of India's participation in the activities of the regional institution in question is small, which is connected, firstly, with the status of an observer rather than a permanent participant of India in the AC, and secondly, with India's internal Arctic policy: the adoption of a strategic document on Arctic policy only in 2022, the late expression of interest in the Arctic region as a whole. However, India has the potential to increase its participation in the work of the Arctic Council.

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