



INDIA AND THE ARCTIC OCEAN - GS II AND III MAINS

Q. Examine the causes behind India's rising interest in the Arctic Region and bring out the measures taken by the government to enhance its interest in the region. (15 marks, 250 words)

News: *India's Arctic imperative*

What's in the news?

- In March 2024, India's inaugural winter expedition in the Arctic concluded triumphantly and India's National Centre for Polar and Ocean Research regarding a winter mission to the Arctic, recent developments have led to a shift in perspective.

Arctic Region:

Location:

- Situated at the northernmost part of Earth, the Arctic region is centred around the North Pole.

Countries:

- Encompassing the Arctic Ocean and territories of several nations such as Canada, Russia, the United States, Norway, and Greenland, it spans a vast expanse.
- With its extreme cold temperatures, much of the region is cloaked in ice, particularly during the winter months.

Climate and Environment:

- Defined by its frigid climate, the Arctic experiences temperatures frequently plummeting below freezing.
- The area is predominantly covered by ice, including sea ice and ice caps, which serve a pivotal role in regulating global climate patterns by reflecting sunlight.

Ecosystem Support:

- Despite its harsh conditions, the Arctic sustains a unique ecosystem, hosting iconic species like polar bears, seals, whales, and a diverse array of bird species.

Significance of the Arctic Region:

1. Economic Significance:

- The Arctic region boasts abundant natural resources, including coal, gypsum, diamonds, and substantial reserves of zinc, lead, placer gold, and quartz.
- The Arctic harbours significant untapped hydrocarbon resources, comprising about 30% of the world's undiscovered natural gas.
- With increasing ice melt, these resources become more accessible, potentially addressing India's energy security needs and scarcity of strategic and rare earth minerals.



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AGREEMENT ON ENHANCING INTERNATIONAL ARCTIC SCIENTIFIC COOPERATION

NON-BINDING ILLUSTRATIVE MAP

This non-binding illustrative map shows the approximate extent of the Identified Geographic Areas described in Annex 1 of the Agreement on Enhancing International Arctic Scientific Cooperation. It is intended for illustrative purposes only and does not form part of the Agreement.

- Approximate Extent of Identified Geographic Areas
- 62°N
- - - Arctic Circle
- ▨ Additional areas covered voluntarily by Canada

Continental shelf areas are not depicted.
U.S. Department of State, OES/OPA, April 12, 2019

2. Geographical Significance:

- The Arctic plays a crucial role in global ocean circulation by facilitating the movement of cold and warm water around the planet.
- Furthermore, Arctic sea ice acts as a massive reflective surface, bouncing sunlight back into space and contributing to the Earth's temperature regulation.

3. Geopolitical Significance:

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- China has dubbed trans-Arctic shipping routes as the “Polar Silk Road” as part of its Belt and Road Initiative (BRI), and alongside Russia, is constructing nuclear icebreakers.
- This has prompted a need to counter China’s influence in the Arctic, leading India to take a keen interest in the region through its Arctic policy.

4. Environmental Significance:

- The Arctic’s melting ice provides valuable insights into the glacial melt in the Himalayas, often referred to as the “third pole,” which holds the world’s third-largest freshwater reserves after the North and South poles.
- This makes the study of the Arctic critical for Indian scientists, leading India to launch its first scientific expedition to the Arctic Ocean in 2007 and establish the Himadri research base in the Svalbard archipelago (Norway), actively engaging in research in the region ever since.

Reasons Behind India’s Growing Interest in the Arctic Region:

1. Arctic Warming:

- The accelerated warming of the Arctic, surpassing earlier estimates, and its consequential effects on global climate patterns have prompted a reassessment of strategic needs and priorities.

2. Trade Routes:

- India recognizes the potential of Arctic sea routes, particularly the Northern Sea Route, as a means to facilitate more efficient and cost-effective shipping for Indian trade.
- The utilisation of these routes could significantly reduce shipping costs and enhance trade opportunities.

3. Geopolitical Dynamics:

- The increasing presence and investment of China in the Arctic, coupled with Russia’s decision to grant China expanded access to the Northern Sea Route, have heightened India’s geopolitical attention towards the region.

Challenges Facing the Arctic Region:

1. Policy Divide in India:

- Indian engagement in the Arctic sparks division among academic and policy circles due to differing views on the region’s impact on India’s economy, particularly concerning fossil fuel mining.
- Advocates urge a pragmatic approach, while sceptics raise environmental concerns.

2. Arctic Amplification:

- Arctic warming outpaces global trends, accelerating the thawing of permafrost and releasing potent greenhouse gases, exacerbating ice melt and Arctic amplification.

3. Rising Sea Level Concern:



- Melting Arctic ice contributes to rising sea levels, heightening coastal erosion and storm surges, posing significant threats to India's extensive coastline and port cities, as noted by the World Meteorological Organization.

4. Emerging Race Course:

- The opening of Arctic shipping routes fuels a resource extraction race among global powers, including the US, China, and Russia, vying for dominance in the region.

5. Threat to Biodiversity:

- Diminishing Arctic ice and rising temperatures jeopardise Arctic wildlife survival, particularly polar bears, while shifting fish populations disrupt the Arctic food web.
- Extreme weather and wildfires further threaten Arctic ecosystems, including tundra areas.

Way Forward and Collaboration:

- Norway, as the current chair of the Arctic Council, maintains close relations with India. Collaboration between the two nations extends to studying changing conditions in the Arctic and Antarctic and their implications for South Asia.
- Denmark and Finland have engaged in collaborative efforts with India, focusing on waste management, pollution control, renewable energy, and green technology initiatives.
- Participation in the Arctic Council's working groups presents India with opportunities to contribute significantly to addressing issues like the blue economy, infrastructure development, and responsible resource utilisation.
- India's reputation as a 'responsible stakeholder' enhances its potential for collaboration, offering broader scope and opportunities for engagement in various areas of mutual interest.
- Establishing a single nodal body is crucial to streamline Arctic Research and Development efforts currently managed by the National Centre for Polar and Ocean Research (NCPOR) and the Ministry of External Affairs. This body would coordinate all government activities related to the Arctic.
- Adopting a Global Ocean Treaty: Global ocean governance, particularly in polar regions, warrants attention. Progressing towards a collaborative global ocean treaty, addressing challenges like rising sea levels, is imperative.

The Arctic region, with its immense strategic, economic, and environmental significance, plays a pivotal role in shaping India's global engagements. As the dynamics of the Arctic evolve, it will be imperative for India to further its commitments, collaborations, and responsible actions in the region, ensuring a balance between economic interests and environmental sustainability.

Go back to basics:

India's Arctic Policy:

India's Arctic policy titled 'India and the Arctic: building a partnership for sustainable development' lays down six pillars such as

- Strengthening India's scientific research and cooperation



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- Climate and environmental protection
- Economic and human development
- Transportation and connectivity
- Governance and international cooperation
- National capacity building in the Arctic region.

India's Arctic policy shall be implemented through an action plan, and an effective governance and review mechanism involving the interministerial Empowered Arctic Policy Group. Implementing India's Arctic policy will involve multiple stakeholders, including academia, the research community, business, and industry.



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