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News: Northern Sea Route

Northern Sea Route (NSR)

- The Northern Sea Route (NSR), the **shortest shipping route for freight transportation between Europe and countries of the Asia Pacific region, straddles four seas of the Arctic Ocean.**
- **Running to 5,600 km, the route begins at the boundary between the Barents and the Kara seas (Kara Strait) and ends in the Bering Strait (Provideniya Bay).**
- **Murmansk, popularly called the capital of the Arctic region and the beginning point of the Northern Sea Route (NSR), is witnessing the rising trend of Indian involvement in cargo traffic.**
- **In the first seven months of 2023, India got the lion's share with 35% of eight million tonnes of cargo handled by the Murmansk port, which is about 2,000 km northwest of Moscow.**
- **India has been showing greater interest regarding the NSR for a variety of reasons.**

Significance of Arctic region to India

- The vulnerability of the Arctic region, which is above the Arctic Circle and includes the Arctic Ocean with the North Pole at its centre, to unprecedented changes in the climate may have an impact on India in terms of economic security, water security and sustainability.
- The region also constitutes the largest unexplored prospective area for hydrocarbons remaining on the Earth.
- It is estimated that the region may hold over 40 per cent of the current global reserves of oil and gas.
- There may also be significant reserves of coal, zinc and silver.
- As the seas of the Arctic Ocean remain icebound during most of the year, the icebreaking assistance is organised to ensure safe navigation along the NSR.
- Russia is the only country in the world with a nuclear powered icebreaker fleet. In December 1959, the world's first nuclear icebreaker, "Lenin," was put into operation, unveiling the new chapter in the NSR development. It was decommissioned 30 years later.
- Today, FSUE Atomflot, a subsidiary of Rosatom, acts as the fleet operator of nuclear powered icebreakers.
- The fleet comprises seven nuclear powered icebreakers, apart from one nuclear container ship. Three more are expected to be commissioned between 2024 and 2027.



Arctic Council

- Arctic Council is a high level **intergovernmental form** formed in 1996 as the result of signing of **Ottawa Declaration**.
- It is not a **formalized treaty-based international legal entity and does not allocate resources**.
- Aim of the council is to address issues faced by Arctic governments and indigenous people of Arctic.
- Headquarters of Arctic Council is in **Tromso, Norway**.
- Membership is confined to those states **which have territories in Arctic**.

- Members are **Canada, Denmark (representing Greenland and Faroe Islands), Finland, Iceland, Norway, Russia, Sweden and United States.**
- **Six organisations** representing the indigenous people of the Arctic region have **also been granted the status of permanent participants in the Council.**
- All decision-making happens through **consensus** between the permanent members.
- The Council does **not prohibit the commercial exploitation of resources in the Arctic.**
- Varied estimates suggest that the **Arctic holds a significant portion of 30% of the world's undiscovered natural gas and 13% of its undiscovered oil reserves.**
- However, exploitation of the resources has been difficult because of the natural barriers created by harsh **weather conditions and difficult terrain.**
- Also, the resources are unevenly distributed, for instance, the Russian region is richer in gas reserves, while the Norwegian region has more oil resources.
- The **Arctic, unlike Antarctica, is not a Global Common.**
- There is a lack of overarching guidelines for how stakeholders can engage the Arctic's resources, akin to the Antarctic Treaty of 1959 that limited the use of the Antarctic only for scientific and peaceful purposes and freed it from any territorial claims making the Antarctic a global common.

- Global commons are those resource domains that do not fall within the jurisdiction of any one particular country, and to which all nations have access.

These include the oceans, outer space and the Antarctic.

Observers

- Observer status is open to non-Arctic states approved by the Council at the Ministerial Meetings that occur once every two years.
- Observers have no voting rights in the Council.
- As of May 2019, thirteen non-Arctic states have Observer status.
- India is an observer since 2019.

India and the Arctic

- India launched its first scientific expedition to the Arctic Ocean in 2007 and opened a research base named "Himadri" at the International Arctic Research Base at Ny-Alesund, Svalbard, Norway in July 2008 for carrying out studies in disciplines like Glaciology, Atmospheric sciences & Biological sciences.
- The major objectives of the Indian Research in Arctic Region are as follows:
- To study the hypothesized tele-connections between the Arctic climate and the Indian monsoon by analyzing the sediment and ice core records from the Arctic glaciers and the Arctic Ocean.

- To characterize sea ice in the Arctic using satellite data to estimate the effect of global warming in the northern polar region.
- To conduct research on the dynamics and mass budget of Arctic glaciers focusing on the effect of glaciers on sea-level change.
- To carry out a comprehensive assessment of the flora and fauna of the Arctic and their response to anthropogenic activities. In addition, it is proposed to undertake a comparative study of the life forms from both the Polar Regions
- India has been closely following the developments in the Arctic region in the light of the new opportunities and challenges emerging for the international community due to global warming induced melting of Arctic's ice cap.
- India's interests in the Arctic region are scientific, environmental, commercial as well as strategic.
- In July 2018, Ministry of Earth Sciences renamed the "National Centre for Antarctic and Ocean Research" to the "National Centre for Polar and Ocean Research."
- It is a nodal organisation coordinating the research activities at the stations at the poles.
- India has also entered into MOU with Norwegian Polar Research Institute of Norway, for cooperation in science, and also with Kings Bay (A Norwegian Government owned company) at Ny-Alesund for the logistic and infrastructure

facilities for undertaking Arctic research and maintaining Indian Research base 'Himadri' at Arctic region.

- India does not have an official Arctic policy and its Arctic research objectives have been centered on ecological and environmental aspects, with a focus on climate change, till now.
- The region is very **rich in minerals oil and gas**.
- With the global warming induced ice melting of Arctic region, **new shortened routes of Sea trade might open**.
- Arctic council doesn't prohibit the commercial exploitation of resources of Arctic, but it seeks to ensure that it is done in a sustainable manner.