



Arctic: Concerns & Opportunities

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Why in News

As per the **WWF-Arctic Programme**, the Arctic region is **warming up twice as fast as the global average**. The ice cap has been shrinking fast since 1980 and the **volume of Arctic sea ice has declined by as much as 75%**.

Since 1992, WWF's (**World Wide Fund for Nature**) **Arctic Programme** has been working with **its partners across the Arctic** to combat threats to the Arctic and to preserve **its rich biodiversity in a sustainable way**.

Key Points

About Arctic:

- The Arctic is a **polar region** located at the northernmost part of Earth.
- The Arctic consists of the **Arctic Ocean, adjacent seas, and parts of Alaska** (United States), **Canada, Finland, Greenland** (Denmark), **Iceland, Norway, Russia, and Sweden**.
- Land within the Arctic region has seasonally **varying snow and ice cover**.



- **Ecological Impact of Warming on Arctic:**

- The loss of ice and the warming waters will affect **sea levels, salinity levels, and current and precipitation patterns.**
- The **Tundra** is returning to **swamp**, the **permafrost is thawing, sudden storms are ravaging coastlines** and **wildfires** are devastating interior Canada and Russia.

Tundra: Found in regions **north of the Arctic Circle and south of the Antarctic Circle.** These are **treeless regions.**

- The phenomenally **rich biodiversity of the Arctic region is under serious threat.**

The absence of year-long ice and higher temperatures are making the survival of Arctic marine life, plants and birds difficult while encouraging species from lower latitudes to move north.

- The Arctic is also home to about **40 different indigenous groups, whose culture, economy and way of life is in danger** of being swept away.

Increasing human encroachment with its attendant stresses will only aggravate this impact and upset a fragile balance.

- **Commercial Importance of Arctic:**

- The opening of the Arctic presents huge commercial and economic opportunities, particularly in **shipping, energy, fisheries and mineral resources.**
- **Commercial navigation:**
 - The **Northern Sea Route (NSR)** which would connect the North Atlantic to the North Pacific through a short polar arc is the most tempting.
- **Oil and natural gas deposits:**
 - Estimated to be 22% of the world's unexplored resources, mostly in the Arctic ocean, will be open to access along with mineral deposits including 25% of the global reserves of rare earths, buried in Greenland.
- **Issues Involved:**
 - Navigation conditions are dangerous and restricted to the summer.
 - Lack of deep-water ports, a need for ice-breakers, shortage of workers trained for polar conditions, and high insurance costs add to the difficulties.
 - Mining and deep-sea drilling carry **massive costs** and **environmental risks.**
 - Unlike Antarctica, the Arctic is **not a global common** and there is no overarching treaty that governs it.

- **Conflict over Arctic:**

- Russia, Canada, Norway and Denmark have put in **overlapping claims for extended continental shelves, and the right to sea-bed resources.**
- Russia is the dominant power, with the **longest Arctic coastline**, half the Arctic population, and a full-fledged strategic policy.
 - Claiming that the NSR falls within its territorial waters, Russia anticipates **huge dividends from commercial traffic including through the use of its ports, pilots and ice-breakers.**
 - Russia has also activated its northern military bases, refurbished its **nuclear armed submarine fleet and demonstrated its capabilities,** including through **an exercise with China** in the eastern Arctic.
- **China**, playing for economic advantage, has moved in fast, projecting the **Polar Silk Road as an extension of the Belt and Road Initiatives**, and has invested heavily in ports, energy, undersea infrastructure and mining projects.

- **India's interests in Arctic:**

- **Environmental Interest:**

India's extensive coastline makes it vulnerable to the impact of Arctic warming on **ocean currents, weather patterns, fisheries and most importantly, the monsoon.**

- **Scientific Interest:**

Scientific research in Arctic developments, in which India has a good record, will contribute to its **understanding of climatic changes in the Third Pole, the Himalayas.**

- **Strategic Interest:**

The strategic implications of an **active China in the Arctic** and its growing economic and strategic relationship with Russia are self-evident and **need close monitoring.**

- Since 2013, India has had **observer status** in the **Arctic Council**, which is the predominant inter-governmental forum for cooperation on the environmental and development aspects of the Arctic.

- It is high time that its presence on the Arctic Council was underpinned by a strategic policy that encompassed **economic, environmental, scientific and political aspects.**

Source:IE