



Largest Decline in Arctic Sea Ice

Why in News

The [National Centre of Polar and Ocean Research \(NCPOR\)](#) has observed the **largest decline in the Arctic Sea ice in the last 41 years.**

- The decline in the Arctic Sea ice is due to [global warming](#) — leading to **localised increase in evaporation, air humidity, cloud cover and rainfall.**

Sea Ice

- Sea ice arises as seawater freezes. Because **ice is less dense than water**, it floats on the ocean's surface.
- Sea ice covers about 7% of the Earth's surface and about 12% of the world's oceans.

Key Points

- **Increased Rate of Sea Ice Decline:**
 - In the last 40 years (1979-2018), the sea ice has been declining at **4.7% per decade**, while the current declining rate was found to be **13% in July 2019.**
 - Thus, it has been noted that the volume of ice formation during winters is **unable to keep pace** with the volume of ice loss during summers.
 - Additionally, it has been predicted that if this trend continues, there would be **no ice left in the Arctic Sea by 2050.**
- **Impacts:**
 - The decrease of the Arctic Sea ice area and the increase in the duration of summer and autumn seasons **affected the local weather and climate** over the Arctic Ocean and its marginal seas.
 - Being a sensitive indicator of climate change, the loss of ice cover in the Arctic Sea may affect **other components of the climate system** such as reduction of heat, water vapour, and other material exchange between the atmosphere and the sea.
 - The northern hemisphere experienced **record high-temperature rise**, especially during the spring and summer months.

National Centre of Polar and Ocean Research

- National Centre of Polar and Ocean Research (NCPOR) was established as an autonomous Research and Development Institution of the **Ministry of Earth Sciences** in 1998.
- It is located in **Goa.**
- Earlier known as National Centre for Antarctic and Ocean Research (NCAOR), NCPOR is India's premier R&D institution responsible for the country's research activities in the **Polar and Southern Ocean realms.**

- It is the **nodal agency** for planning, promotion, coordination and execution of the entire gamut of **polar and southern ocean scientific research** in the country as well as for the associated logistics activities.

Way Forward

- The sea-ice loss at such a high rate is a matter of concern for all the lives on Earth.
- Thus, maintaining the balance between anthropological activities and carrying capacity of the environment is one of the foremost steps that can be taken at this point of time.

Source:DTE

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