



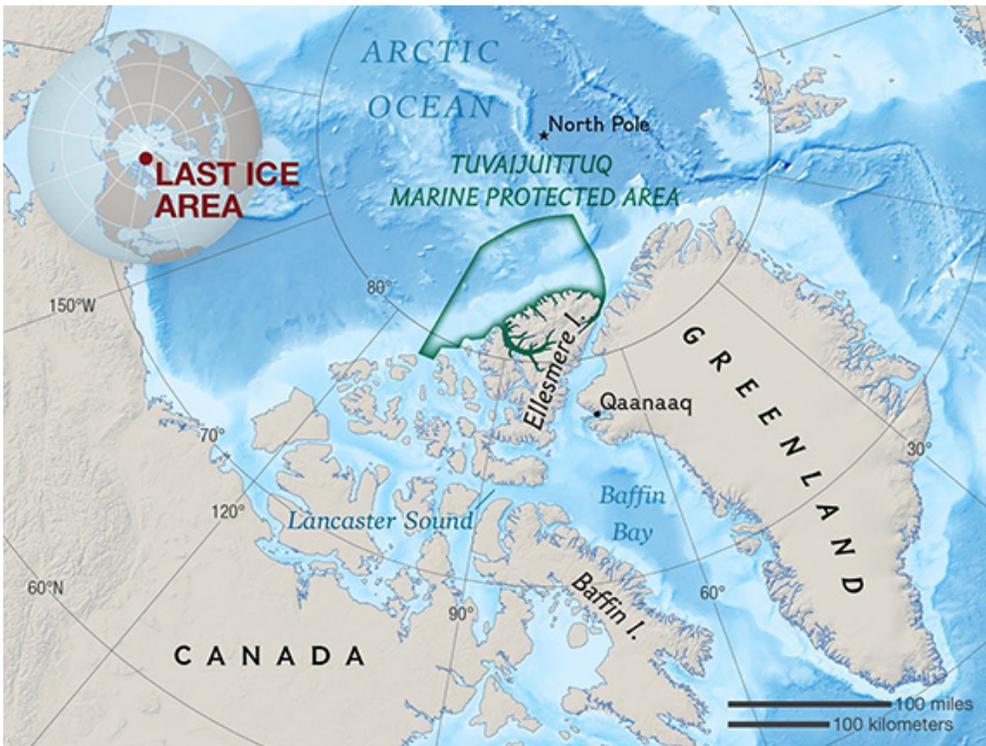
drishti

## Melting of Arctic's 'Last Ice Area'

 [drishtias.com/printpdf/melting-of-arctic-s-last-ice-area](https://drishtias.com/printpdf/melting-of-arctic-s-last-ice-area)

### Why in News

The 'Last Ice Area' (LIA), located in the Arctic's Ice north of Greenland, has started melting earlier than what the scientists had expected.



### Key Points

- **Last Ice Area:**
  - This region is located **north of Greenland and Ellesmere Island** in the Canadian territory of Nunavut.
  - This area was believed to be **strong enough to withstand global warming**.  
The **total disappearance of summer ice** in the Arctic was estimated by the **year 2040**, however the '**Last Ice Area**' was the exception.
  - **World Wildlife Fund (WWF)-Canada** was believed to be the **first** to call this area the '**Last Ice Area**'.
- **Importance:**
  - It was thought to be able to **help ice-dependent species** as ice in the surrounding areas melted away.
  - It is used by **polar bears to hunt for seals** who use ice to build dens for their offspring. **Walruses** too, use the surface of the ice for **foraging** (to search for food).
  - Sea ice is a **highway for inuit**, who use it to travel and hunt.  
The **term Inuit** refers broadly to the **Arctic indigenous population of Alaska, Canada, and Greenland**.
- **Reasons for Melting:**
  - About **80% of thinning** can be attributed to **weather-related factors** such as winds that break up and move the ice around.
  - The remaining **20%** can be attributed to **longer-term thinning of the ice** due to **global warming**.
- **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.
  - 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.

- **Impact of Melting Arctic Ice:**

- **Global Climate:** The **Arctic and Antarctic** act like the world's refrigerator. Since they are covered in white snow and ice that reflect heat back into space (**Albedo effect**), they balance out other parts of the world that absorb heat.
- **Coastal Communities:** Global average sea level has risen by about **7-8 inches since 1900**, and it's getting worse. **Rising seas endanger coastal cities and small island nations** by exacerbating coastal flooding and storm surge.
- **Food Security:** **Polar vortexes, increased heat waves, and unpredictability of weather** caused by ice loss are already causing significant damage to crops on which global food systems depend.
- **Permafrost & Global Warming:** **Permafrost in the Arctic region** (ground that is permanently frozen) stores large amounts of **methane, which is a greenhouse gas** that contributes to **climate change**.
- **Biodiversity Threat:** Melting of the Arctic ice puts the Arctic region's vibrant **biodiversity** under serious threat.

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

Recently, **India participated in the 3<sup>rd</sup> Arctic Science Ministerial (ASM)** and shared plans for research and long-term cooperation in the Arctic Region.

**Source: IE**