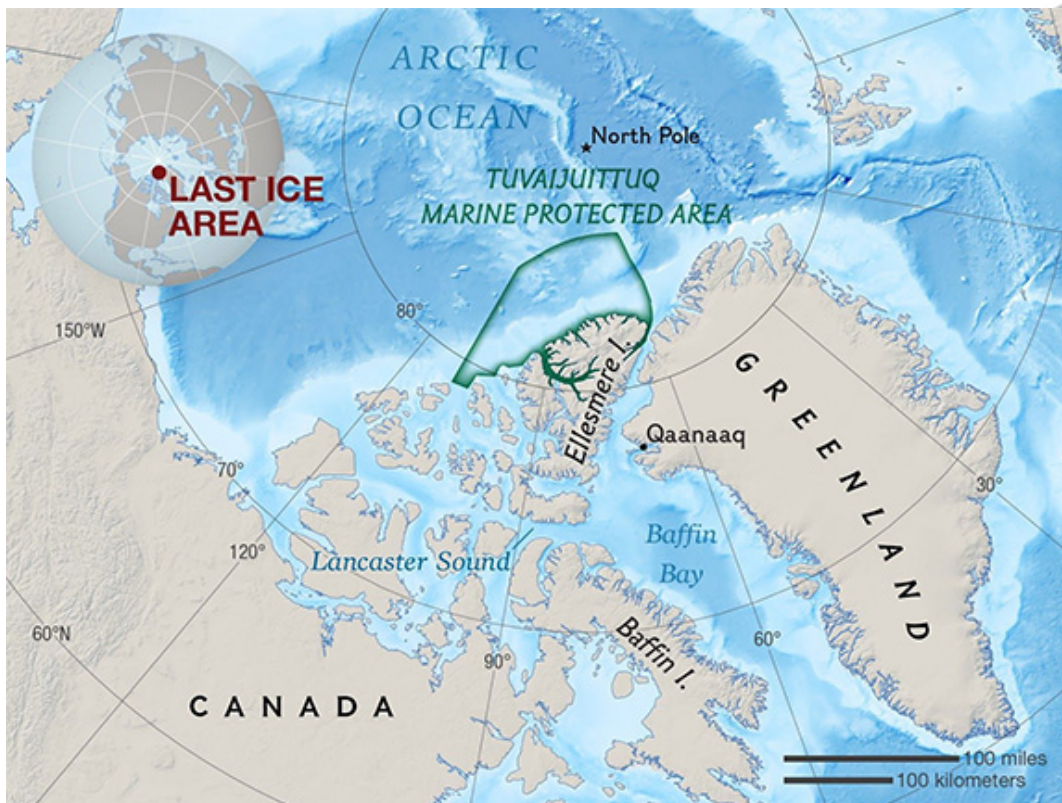




# Melting of Arctic's 'Last Ice Area'

## 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. **Walrus**es 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](#)**