



Marine Protected Areas in Antarctica

Why in News

India has extended its support for protecting the Antarctic environment and for co-sponsoring the proposal of the [European Union](#) for designating East Antarctica and the Weddell Sea as Marine Protected Areas (MPAs).

- The [Southern Ocean](#), also called **Antarctic Ocean**, is a body of salt water covering approximately one-sixteenth of Earth's total ocean area.



Key Points

- **Marine Protected Areas:**
 - In general terms, a Marine Protected Area (MPA) is a **marine area that provides protection for all or part of the natural resources it contains.**

- Within an MPA, **certain activities are limited, or entirely prohibited**, to meet specific conservation, habitat protection, ecosystem monitoring or fisheries management objectives.
- MPAs **do not necessarily exclude fishing, research or other human activities**; in fact, many MPAs are multi-purpose areas.
- The **Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) has agreed a framework** that describes the objectives and requirements for establishing MPAs.
- **MPAs in Antarctica:**
 - Currently, only 5% of the Southern Ocean is protected. MPAs were **established in the South Orkney Islands in 2009 and the Ross Sea region in 2016**.
 - **Another three proposals** for MPAs are being considered for **East Antarctica, the Weddell Sea, and the Antarctic Peninsula**.
 - MPA proposals are driven by conservation and sustainable utilization principles and adhering to the global cooperation frameworks (such as [Sustainable Development Goals](#), [UN Decade of Oceans](#), [Convention on Biodiversity](#), etc.)
 - **India is a signatory** to these conventions or agreements.
 - India urged the [Commission for the Conservation of Antarctic Marine Living Resources \(CCAMLR\)](#) member countries to ensure that India remains associated with the formulation, adaptation and implementation mechanisms of these MPAs in future.
- **Need to Establish MPAs:**
 - The health of the Southern Ocean is driven by changes to the ocean itself - such as:
 - Ocean **Acidification**
 - **Changes in sea-ice concentration**
 - Events triggered by climate change such as [heat waves](#) and **extreme weather**.
 - These changes **affect the marine ecosystem and species of the Antarctic region**.
 - Further, in response to these impacts, the threat of **new and invasive species in the Southern Ocean** is growing and endemic marine species like **penguins are experiencing a historic die-off**.
 - Apart from this there is a rapid increase in melting of glaciers in Antarctica . For example, [Thwaites Glacier](#).
 - Studies show that **MPAs can help vulnerable ecosystems build resilience to climate change** by eliminating additional stresses such as fishing.
 - In addition, their relatively undisturbed waters **provide a natural laboratory** for studying how intact marine ecosystems react to a warming and acidifying ocean.
- **About Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR):**
 - CCAMLR is a **multilateral response** to concerns that **unregulated increases in krill catches in the Southern Ocean** could be detrimental for Antarctic marine ecosystems particularly for seabirds, seals, whales and fish that depend on krill for food.
 - CCAMLR was established by **international convention in 1982** with the objective of conserving Antarctic marine life.
 - An important feature of CCAMLR is the **ecosystem approach** to conservation, requiring that the effects on the ecosystem must be taken into account in managing the harvesting of marine resources.
 - It's **Secretariat is located in Hobart, Tasmania, Australia**.

India's Antarctic Missions

- India is expanding its infrastructure development in Antarctica.
- The newest base commissioned in 2015 is **Bharati**.
- India is rebuilding its second station, **Maitri**, to make it bigger and last for at least 30 more years.
- **Dakshin Gangotri**, the first Indian base established in 1984, has weakened and become just a supply base.

Antarctic Treaty System

- There are few related agreements that make up the Antarctic treaty system. They are as follows:
 - The **Protocol on Environmental Protection to the Antarctic Treaty** (Madrid, 1991)
 - The **Convention for the Conservation of Antarctic Seals** (CCAS, London, 1972)

- The **Convention on the Conservation of Antarctic Marine Living Resources** (CCAMLR, Canberra, 1980).

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