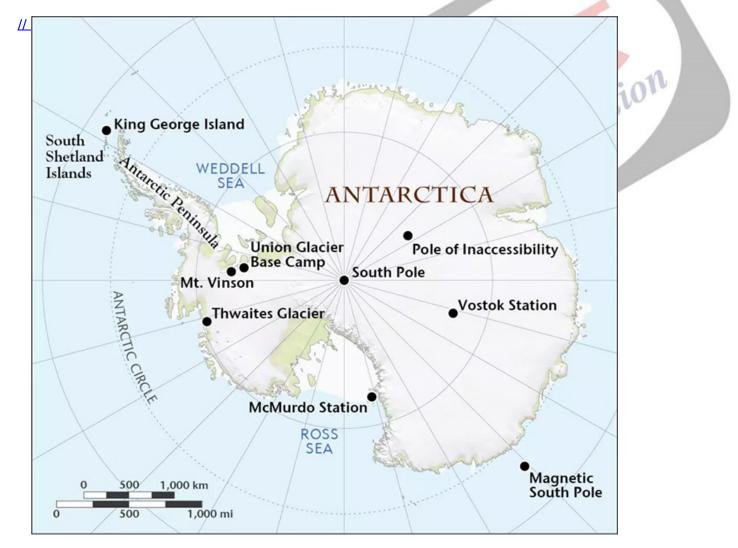
Marine Protected Areas in Antarctica

Why in News

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

 The <u>Southern Ocean</u>, 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 <u>Sustainable Development</u> <u>Goals</u>, <u>UN Decade of Oceans</u>, <u>Convention on Biodiversity</u>, etc.)
 - India is a signatory to these conventions or agreements.
 - India urged the <u>Commission for the Conservation of Antarctic Marine Living</u> <u>Resources (CCAMLR)</u> 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 <u>heat waves</u> 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, <u>Thwaites Glacier</u>.
 - 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).

The Vision

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