

Sagar Manthan

Prelims: Current events of national and international importance | Defence

Why in News?

Recently, Kolkata-based GRSE has launched the indigenous ocean research vessel 'Sagar Manthan', marking a boost to India's maritime research capabilities.

- The facility is being constructed for the **National Centre for Polar and Ocean Research (NCPOR)**.
- Developed as part of the **Deep Ocean Mission**.
- Expected to be operational by **early 2028**.
- **Objective** - To enhance India's capabilities in **deep-sea exploration, oceanographic research, and geophysical surveys**.



SHANKAR
IAS PARLIAMENT

SAGAR MANTHAN

India's New Ocean Research Vessel

EXPLORING DEEPER FOR A SUSTAINABLE TOMORROW

Oceans
Knowledge
A Safer Planet

Deeper Research
Stronger Science
A Resilient India

Feature	Details
 Name	Sagar Manthan
 Type	Ocean Research Vessel
 Builder	GRSE, Kolkata
 Client	NCPOR
 Ministry	Ministry of Earth Sciences
 Mission	Deep Ocean Mission
 Cost	₹840 crore
 Length	89.5 m
 Width	18.8 m
 Gross tonnage	5,900 tonnes
 Speed	14 knots
 Operational target	Early 2028
 Research area	Indian Ocean, Bay of Bengal, Southern Ocean & Antarctic waters
 Maximum survey depth	Up to 6 km



From the Depths
for a Brighter Tomorrow

Deep Ocean Mission (DOM)

• **DOM** - It is a Government of India initiative aimed at developing technologies and capabilities for the **exploration and sustainable use of deep-ocean resources**.

• **Nodal ministry** - Ministry of Earth Sciences (MoES)

• **Six thematic areas**

- Development of Technologies for Deep Sea Mining, Manned Submersible, and Underwater Robotics,
- Development of Ocean Climate Change Advisory Services,
- Technological innovations for exploration and conservation of deep-sea biodiversity,
- Deep Ocean Survey and Exploration,
- Energy and freshwater from the Ocean and
- Advanced Marine Station for Ocean Biology

• **Key features**

• **Oceanographic research** - It includes ocean measurements, sampling, CTD profiling,

and current and meteorological observations.

- **Deep-sea and geophysical surveys** - It involve multibeam bathymetry, seismic surveys, and sub-bottom profiling to **depths of up to 6 kilometers**.
- **Autonomous and remotely operated systems** - It deploy AUVs for autonomous surveys and data collection, as well as ROVs for remote inspection and operations.
- **Marine sampling** - It covers water, biological, seabed, and rock sampling, along with mooring and buoy operations.
- **Atmospheric and weather research** - It utilizes Doppler radar, meteorological instruments, and upper-air systems to support ocean-climate studies.
- **Geographic reach** - It extends from the Indian Ocean to Antarctica, operating in both coastal and deep waters, including severe sea conditions.
- **Marine mineral resource activities** - It focus on exploring deep-sea manganese nodules and polymetallic sulphides for strategic minerals.

Reference

[The Hindu | Sagar Manthan](#)

