

Samudrayaan Mission

Why in News

Recently, the <u>Ministry of Earth Sciences</u> (MoES) has launched India's first manned ocean mission "Samudrayaan" in Chennai.

 With this Unique Ocean Mission, India joined the elite club of nations such as the US, Russia, France, Japan, and China to have niche technology and vehicles to carry out subsea activities.

Key Points

- About:
 - It is India's first unique manned ocean mission that aims to send men into the deep sea in a submersible vehicle for <u>deep-ocean exploration</u> and <u>mining</u> of rare minerals.
 - It will send three persons in a manned submersible vehicle **MATSYA 6000** to a depth of 6000 metres into the sea for deep underwater studies.
 - <u>Submarines</u> go only about 200 metres.
 - It is a part of the Rs 6000-crores <u>Deep Ocean Mission</u>.

Deep Ocean Mission

- It was approved in June 2021 by the (MoES). It aims to explore the deep ocean for resources, develop deep-sea technologies for sustainable use of ocean resources, and support the <u>Blue</u>
 <u>Economy Initiatives</u> of the Indian Government.
- The cost of the Mission has been estimated at Rs. 4,077 crore over a five-year period and will be implemented in phases.

MATSYA 6000:

- It is an indigenously developed manned submersible vehicle.
- It will facilitate the **MoES** in conducting **deep ocean exploration of resources** such as gas hydrates, **polymetallic manganese nodules**, hydro-thermal sulfides, and cobalt crusts which are located at an approximate **depth between 1000 and 5500 metres**.
 - **Polymetallic nodules**, also called manganese nodules, are mineral concretions on the sea bottom formed of concentric layers of iron and manganese hydroxides around a core.

Significance:

- This will open up more growth avenues to explore ocean resources for <u>clean energy</u>, drinking water, and blue economy.
- Developed countries have already carried out similar ocean missions. India is the 1st country among the developing nations to carry out a deep ocean mission.
- Other Related Initiatives:
 - India-Norway Task Force on Blue Economy for Sustainable Development.
 - Sagarmala Project.
 - O-SMART.

- Integrated Coastal Zone Management.
 National Fisheries Policy.

Source: PIB

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