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News: Deep Ocean Mission

- Recently, the Ministry of Earth Sciences has launched the Deep Ocean Mission (DOM).

Deep Ocean Mission

- The Deep Ocean Mission **proposes to explore the deep ocean similar to the space exploration started by ISRO about 35 years ago.**
- The estimated cost of the mission will be **Rs. 4077 crore for a period of five years to be implemented in a phase-wise** manner.
- The estimated cost for the first phase for the 3 years (2021-2024) would be Rs.2823.4 crore.
- The deep ocean mission will be a mission mode project to **support the Blue Economy Initiatives** of the government.
- **Ministry of Earth Sciences is the nodal agency** for DOM.
- The focus of the mission will be on **deep-sea mining, ocean climate change advisory services, underwater vehicles and underwater robotics** related technologies.
- It also includes the **construction of Offshore-based desalination plant using tidal energy.**

- The technology and expertise needed in such missions is now available with only five countries - US, Russia, France, Japan and China. India will now be the sixth country to have it.

Significance

- The mission will give a boost to efforts to explore India's vast Exclusive Economic Zone and Continental Shelf.
- The plan will enable India to develop capabilities to exploit resources in the Central Indian Ocean Basin (CIOB).

Potential

- India has been allotted 75,000 square kilometres in the Central Indian Ocean Basin (CIOB) by UN International Sea Bed Authority for exploration of poly-metallic nodules.
- CIOB reserves contain deposits of metals like iron, manganese, nickel and cobalt.
- It is envisaged that 10% of recovery of that large reserve can meet the energy requirement of India for the next 100 years.

Polymetallic Nodules

- Polymetallic nodules (also known as manganese nodules) are potato-shaped, largely porous nodules found in abundance carpeting the sea floor of world oceans in deep sea.
- Besides manganese and iron, they contain nickel, copper, cobalt, lead, molybdenum, cadmium, vanadium, titanium, of which nickel, cobalt and copper are considered to be of economic and strategic importance.
- Deep Ocean Mission will prove to be a game changer in the future. India has 7517 km long coastline. Around 30 per cent of the country's population live in coastal areas. Ocean is a major economic factor supporting fisheries and aquaculture, tourism, livelihoods and blue trade. Oceans are also a storehouse of food, energy, minerals, medicines.
- There are six components to the programme.
- Under the Mission, a manned submersible will be developed to carry three people to a depth of six thousand metre in the ocean.
- An Integrated Mining System will also be developed for mining Polymetallic Nodules. The exploration studies of minerals will pave the way for commercial exploitation in the near future.
- A research vessel for deep ocean exploration would be built in an Indian shipyard which would create employment opportunities.

- The second component involves developing Ocean Climate Change Advisory Services, which entails developing a suite of observations and models to understand and provide future projections of important climate variables on seasonal to decadal time scales.
- The next component is searching for deep sea flora and fauna, including microbes, and studying ways to sustainably utilise them.
- The fourth component is to explore and identify potential sources of hydrothermal minerals that are sources of precious metals formed from the earth's crust along the Indian Ocean mid oceanic ridges.
- The fifth component involves studying and preparing detailed engineering design for offshore Ocean Thermal Energy Conversion (OTEC) powered desalination plants.
- OTEC is a technology which uses ocean temperature differences from the surface to depths lower than 1,000 meters, to extract energy.
- The final component is aimed at grooming experts in the field of ocean biology and engineering. This component aims to translate research into industrial applications and product development through onsite business incubator facilities.

News: International Day to Combat Islamophobia

International Day to Combat Islamophobia

- Recently, the UN General Assembly approved a resolution for setting **March 15th** as the **International Day to Combat Islamophobia**.
- The resolution was **introduced by Pakistan on behalf of the Organisation of Islamic Cooperation (OIC)**.
- Though the resolution has been passed at UNGA, **India has highlighted several concerns**.
- The term **Islamophobia does not have any agreed definition** in international law, contrary to the freedom of religion or belief.

Key Points of the Resolution

- The resolution, **adopted by consensus by the 193-member world body** and cosponsored by 55 mainly Muslim countries.
- The resolution asks all countries, U.N. bodies, international and regional organisations, civil society, private sector and faith-based organisations **“to organise and support various high-visibility events aimed at effectively increasing awareness of all levels about curbing Islamophobia”**.

- The resolution emphasizes the right to freedom of religion and belief and recalls a 1981 resolution calling for “the elimination of all forms of intolerance and of discrimination based on religion or belief”.

India’s Stand

- India expressed concern over phobia against one religion being elevated to the level of an international day, saying there are growing contemporary forms of religiophobia, especially anti-Hindu, anti-Buddhist and anti-Sikh phobias.
- It also cited that that word ‘pluralism’ finds no mention in the resolution.
- India hopes the resolution adopted "does not set a precedent" which will lead to multiple resolutions on phobias based on selective religions and divide the United Nations into religious camps.