



Digital Ocean

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Why in News

Recently, the **Ministry of Earth Sciences** inaugurated the **web-based application DigitalOcean** developed by **Indian National Centre for Ocean Information Services (INCOIS)** in a Virtual Meeting held in New Delhi.

Key Points

- **About Digital Ocean:**
 - **Digital Ocean** is a new state of the art **data platform** for **Ocean Data Management**.
 - It is the **first such platform to provide ocean data related services at one place**.
 - It includes a set of **applications** developed to **organize and present heterogeneous oceanographic data** by **adopting rapid advancements in geospatial technology**.
 - It facilitates an online interactive web-based environment for **data integration, 3D and 4D (3D inspace with time animation) data visualization**, data analysis to assess the evolution of oceanographic features, etc.

- **Significance:**
 - Digital Ocean is a big **step towards** Prime Minister’s vision of **Digital India** that is to transform India into a digitally empowered society and knowledge economy.
 - It will serve as a one stop-solution for all the data related needs of a wide range of users including **research institutions, operational agencies, strategic users, academic community, maritime industry, policy makers and the public.**
 - It will also contribute to the vision of **Atmanirbhar Bharat.**
 - It will play a **central role in sustainable management of the oceans** and expanding the government’s **Blue Economy** initiatives.
 - It will be promoted as a **platform for capacity building** on Ocean Data Management for all **Indian Ocean Rim countries.**
- **Other Related Initiative:**
 - Deep Ocean Mission:**
 - Launched in **2018.**
 - The mission proposes to **explore the deep ocean.**
 - The focus of the mission is on **deep-sea mining, ocean climate change advisory services, underwater vehicles and underwater robotics related technologies.**
 - Two key projects planned in the Mission are:
 - A **desalination plant** powered by **tidal energy.**
 - A **submersible vehicle** that can explore depths of at least 6,000 metres.
 - **Significance:** It will enable India to **develop capabilities to exploit resources in the Central Indian Ocean Basin (CIOB).**

Indian National Centre for Ocean Information Services

- It is an **autonomous organization under the Ministry of Earth Sciences (MoES).**
- It is located in Hyderabad & was **established in 1999.**
- It is a **unit of the Earth System Science Organization (ESSO),** New Delhi.
 - The **ESSO** operates as **an executive arm of the Ministry of Earth Sciences (MoES)** for its policies and programmes.
 - **ESSO’s** aim is to **develop and improve capability to forecast weather, climate and hazard related phenomena** for social, economic and environmental benefits including addressing aspects relating to **climate change** science, and climate services.
- It is mandated to **provide the best possible ocean information and advisory services** to society, industry, government agencies and the scientific community through sustained ocean observations and constant improvement through systematic and focused research.

- It has adopted and developed various state-of-the-art technologies and tools that includes **Potential Fishing Zone (PFZ)** advisories, **Ocean State Forecast (OSF)**, **High Wave Alerts**, **Tsunami early warnings**, **Storm Surge and Oil-Spill advisories**, etc.
- It has been serving as the National Argo Data Centre and Regional Argo Data Centre of the **International Argo Programme**.

Source:PIB