

Global Ocean Observing System report

September 27, 2022

In news- Ocean Observing System Report Card, 2022 was released recently.

About the report-

- It is a high-level annual report providing a deep insight on the state, capacity and value of our Global Ocean Observing System (GOOS).
- GOOS is a collaborative platform with six key components that help define ocean observing requirements, coordinate observing networks, and ensure the flow of data and forecasts.
- The GOOS Ocean Observing System Report Card was **prepared in collaboration with World Meteorological Organization(WMO), the Intergovernmental Oceanographic Commission of UNESCO (IOC-UNESCO)** and other GOOS partners and experts, and produced by its operational centre OceanOPS.
- The report card focuses on how an integrated observing network adds value to society across three delivery areas of climate, operational services and ocean health.
- It **highlights physical, biogeochemical and, for the first time, biological observations**, providing a global view of the state of ocean observations and identifying progress, key challenges and opportunities to enhance the system.
- **The 2022 Report Card includes several key areas:**
 - Global view of the state of the Global Ocean

Observing System.

- Monitoring ocean carbon uptake to allow more accurate climate model projections.
- Advancing coastal inundation forecasts and early warnings.
- Phytoplankton observations – vital for understanding changes in food webs and shifts in marine life.
- Involvement of new communities through the G00S Ocean Decade Programmes.
- The Ocean Observing System Report Card has been **published annually since 2017**. G00S is a global system for sustained observations of the ocean.
- As per the 2022 report, **system to observe carbon concentration in the world's oceans is extremely inadequate** to meet the growing and urgent need for information on oceanic carbon.
- This is especially worrying given that **26 per cent of the 40 gigatonnes of carbon emitted into the atmosphere annually because of human activities is absorbed by the oceans**.
- Oceanic carbon information is thus critical for designing decarbonisation policies and needs investments.
- The report card also noted that **environment monitoring systems, including air and ocean, were affected during the pandemic years**. But most activities were slowly returning to normal and continued automation was supporting increased data delivery, the report card claimed.
- The report card also urged investments in areas including strengthening capacity to collect data from a growing mix of ocean carbon sensors and platforms and

ensured access to FAIR data.

- **FAIR data means data which meet principles of findability, accessibility, interoperability** and reusability. Expanding the carbon observing network to coastal waters and areas under national jurisdiction will also demand investments.
- **Note:** G00S is an Intergovernmental Oceanographic Commission (IOC)-led programme. The IOC is part of UNESCO.