

What are Slocum Gliders?

April 6, 2023 • vajiramandravi.com



About Slocum gliders:

- Slocum gliders are a type of **autonomous underwater vehicle** (AUV) that are capable of carrying out long-duration missions, spanning several months or even years, to collect scientific data from the ocean.
- **Objective:** To study the **physical** and **biogeochemical parameters** of the sea and get an insight into **climate change**.
- **Features of the gliders**
 - The state-of-the-art gliders are equipped with **sensors to track temperature**, salinity, chlorophyll, dissolved oxygen, and PAR – photosynthetic active radiation in the seawater among others.
 - The gliders have been deployed from the Ocean Research Vehicle '**Sagar Manjusha**' of the National Institute of Ocean Technology (NIOT) off the Chennai coast outside of the EEZ – exclusive economic zone boundary
 - These gliders can go underwater **up to a depth of about 1,000 metres** and will surface four to five times a day.
 - These gliders which **run on the lithium-ion battery** is they come with an extended battery life of nine months and more to cover both the north and south transect of the **Bay of the Bengal**.
 - They can travel up to 15 km a day.

- The project comes under the '**Deep Ocean Mission** of the **Ministry of Earth Science**

What is INCOIS?

- It was established as an autonomous body in 1999 under the **Ministry of Earth Sciences** (MoES).
 - **Mandate:** 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 improvements through systematic and focused research
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Q1) What is Climate change?

Climate change refers to long-term shifts in temperatures and weather patterns. These shifts may be natural, such as through variations in the solar cycle. But since the 1800s, human activities have been the main driver of climate change, primarily due to burning fossil fuels like coal, oil and gas.

Source: [Indian National Centre for Ocean Information Services deploys two more deep-sea gliders into Bay of Bengal to study climate change](#)

Source: <https://vajiramandravi.com/current-affairs/what-are-slocum-gliders/>

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