

Global Climate Observing System (GCOS)

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In news– The declaration released by the Global Climate Observing System conference has recently stated that Sustainable and long-term funding is essential to ensure the continuity and expansion of observations.

What is the Global Climate Observing System?

- The **GCOS is co-sponsored by the World Meteorological Organization (WMO)**, the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization (**IOC-UNESCO**), the United Nations Environment Programme (**UNEP**), and the International Science Council (**ISC**).
- It **regularly assesses the status of global climate observations of the atmosphere, land and ocean** and produces guidance for its improvement.
- GCOS expert panels **maintain definitions of Essential Climate Variables (ECVs)** which are required to systematically observe Earth's changing climate.
- The observations supported by GCOS contribute to solving challenges in climate research and also underpin climate services and adaptation measures.

Note:

- GCOS conference was hosted by Exploitation of Meteorological Satellites (EUMETSAT).
- Operational monitoring of the climate and detection of global climatic changes are the fundamental objectives of EUMETSAT.
- According to State of Global Observation Systems, 2021, the status of climate observation systems has not improved much in Africa, South America and Southeast Asia since 2015.

- GCOS Implementation Plan 2022, released by the WMO, also identified gaps in earth observations and areas that require improvement. The plan will be presented at COP27.
- The Global Climate Observing System programme (GCOS) has published The 2022 GCOS Implementation Plan and the 2022 ECV Requirements.
- The GCOS Implementation Plan (GCOS-244) is a response to the findings of the 2021 GCOS Status Report, implications arising from the IPCC 6th assessment report and recent scientific studies on the climate cycles.
- The publication provides recommendations for a sustained and fit for purpose Global Climate Observing System.

The European Organization for the Exploitation of Meteorological Satellites (EUMETSAT)-

- It is an intergovernmental organisation created through an international convention agreed by a current total of 30 European Member States.
- EUMETSAT's primary objective is to establish, maintain and exploit European systems of operational meteorological satellites.
- It is responsible for the launch and operation of the satellites and for delivering satellite data to end-users as well as contributing to the operational monitoring of climate and the detection of global climate changes.
- The activities of EUMETSAT contribute to a global meteorological satellite observing system coordinated with other space-faring nations.