

ГЛОБАЛЬНАЯ СИСТЕМА
НАБЛЮДЕНИЙ ЗА КЛИМАТОМ
НЕУСТАННО СЛЕДИМ ЗА КЛИМАТОМ

SYSTÈME MONDIAL
D'OBSERVATION DU CLIMAT
NOUS VEILLONS SUR LE CLIMAT

النظام العالمي
لرصد المناخ
لنضع المناخ نصب أعيننا

全球气候观测系统
密切监视气候

SISTEMA MUNDIAL
DE OBSERVACION DEL CLIMA
SIEMPRE VIGILANDO EL CLIMA

GLOBAL CLIMATE
OBSERVING SYSTEM
KEEPING WATCH OVER OUR CLIMATE

GLOBAL CLIMATE OBSERVING SYSTEM (GCOS)

Belén Martín Míguez- GCOS Secretariat

KNOWLEDGE SHARING DIALOGUE, ISC online

4/12/2023



**GLOBAL CLIMATE
OBSERVING SYSTEM**

KEEPING WATCH OVER OUR CLIMATE



Supported by the European Union



GCOS – Global Climate Observing System



GCOS is a Co-Sponsored Programme:

- WMO



- IOC - UNESCO



- UNEP

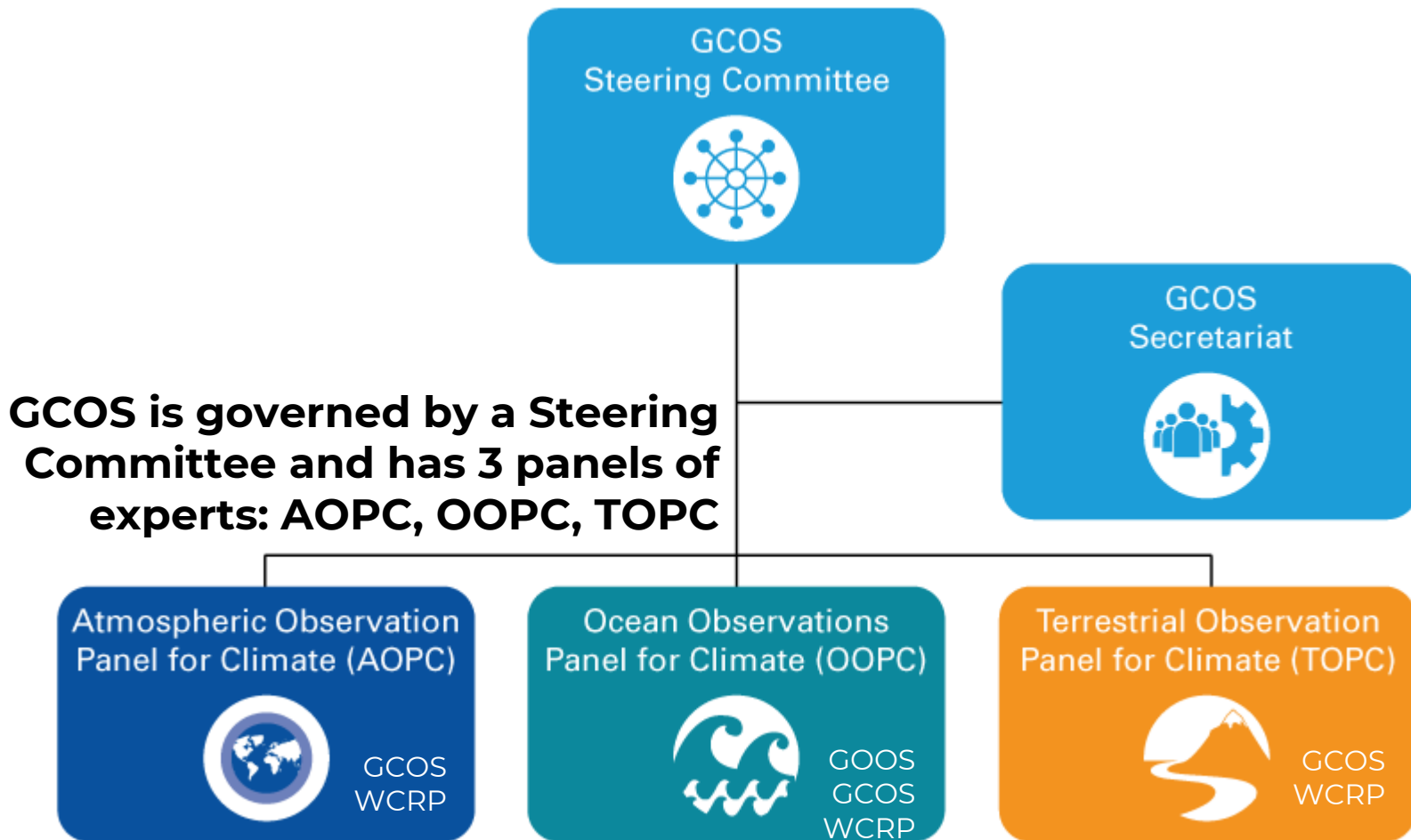


- ISC



Additional contributors:
EU Commission, US State Dept.,
NOAA, Germany, EUMETSAT

GCOS was established in 1992 to address the UNFCCC systematic observation agenda



GCOS – Global Climate Observing System

VISION: a world where users have free access to the climate-related information that is necessary for climate data, so that people can live with safety and change

AIM: to ensure the availability and quality of observations necessary for climate data, so that people can live with safety and change

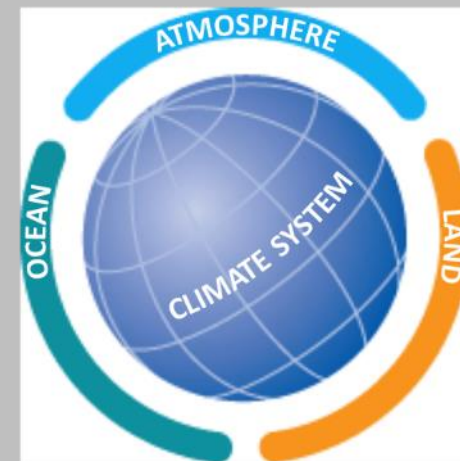
ACTIVITIES

Identify user needs for climate monitoring, adaptation, sustainable development, and UNFCCC

Ensure that climate observations are enhanced and continued into the future

Advocate for free and open access to relevant data

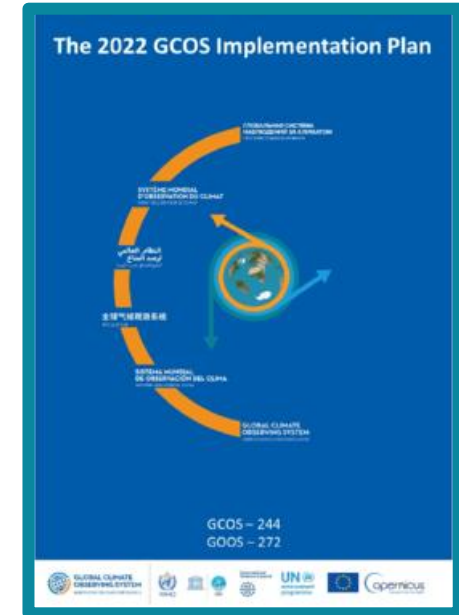
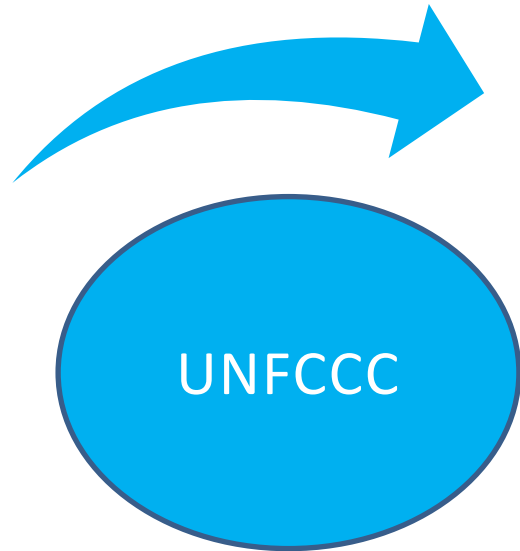
GCOS enables science



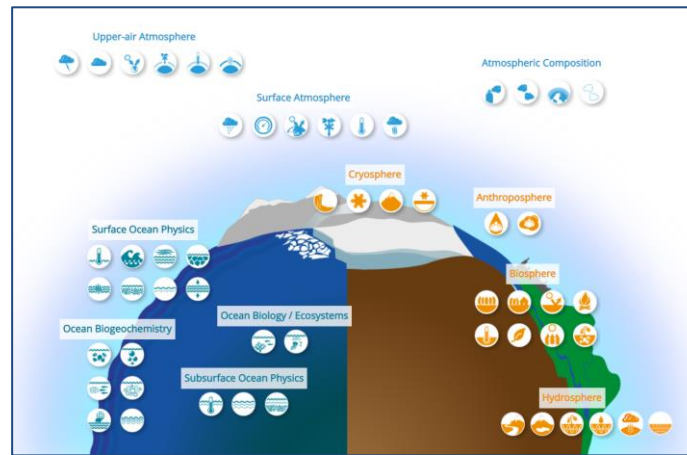
GCOS: main activities and outputs



Assess if the Status of the observing system meets those requirements (GCOS Status Report)



Propose actions to improve the observing system for climate (GCOS Implementation Plan)



Identify what we need to measure (ECV requirements)

The 2022 GCOS Implementation Plan

Research and Academia Supplement



<https://gcos.wmo.int/en/publications/gcos-implementation-plan2022>

Essential Climate Variables - ECVs

55 ECVs -
37 can be measured from space

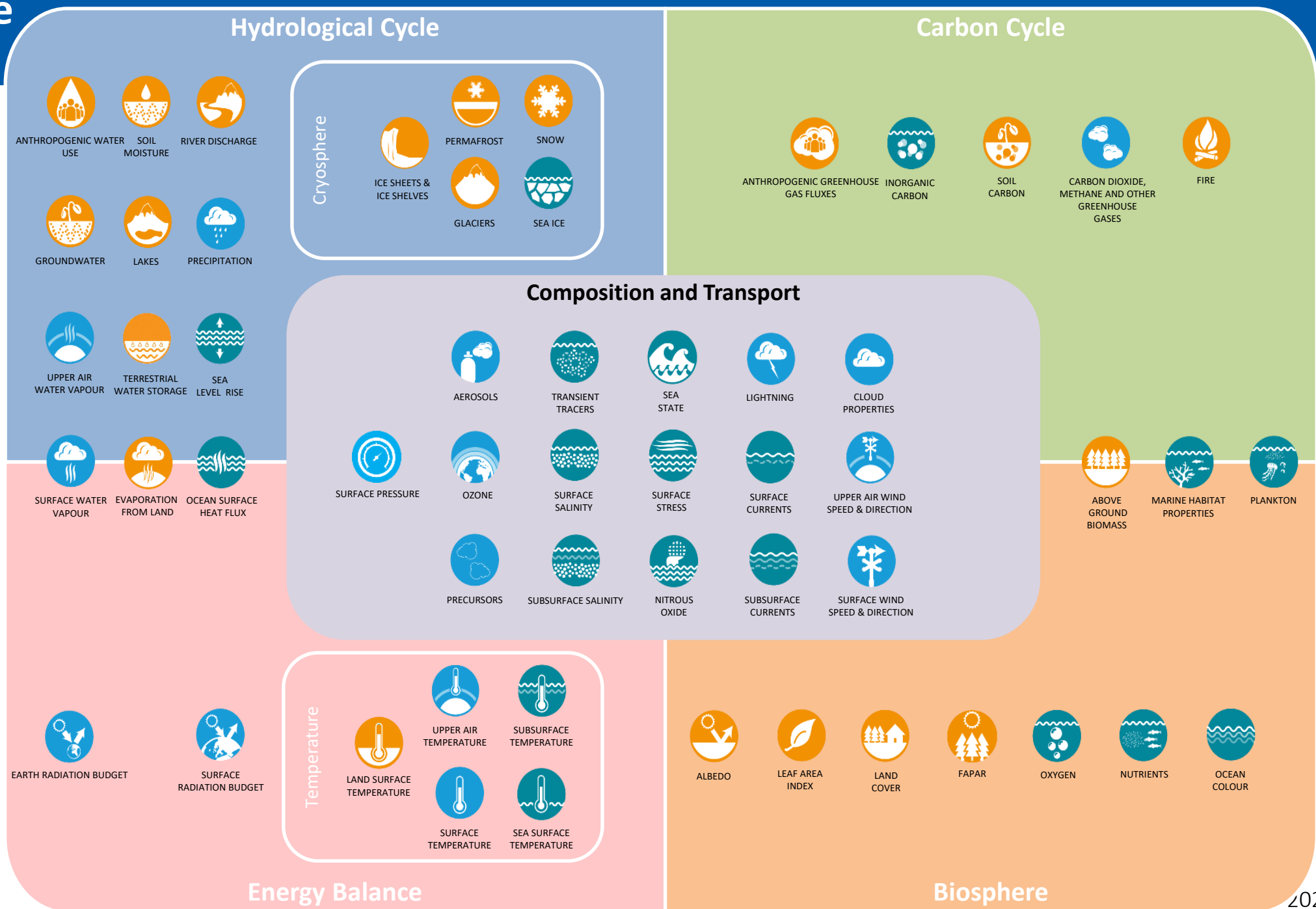
ECVs aim to monitor the climate system as a whole, covering the interlinked Earth's energy balance and the carbon and water cycles.

ECVs observations need to be:

- Feasible
- Cost-effective
- Relevant

ECV Domain (Panel Responsibility):

- Land ECVs (TOPC)
- Water ECVs (OOPC)
- Atmosphere ECVs (AOPC)



GCOS: an integrated system

GCOS does not make observations itself, is a system of systems cooperating with a wide range of organizations: National Meteorological and Hydrological Services, Satellite Agencies, in situ networks, National and regional bodies, Research centres, etc.



Other Global Organizations and Networks for specific terrestrial ECV



Satellite observations are coordinated by the Joint CEOS/CGMS Working Group on Climate

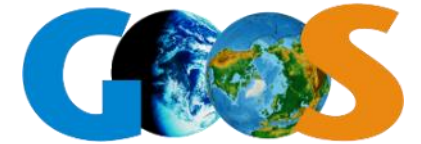
Examples of national and regional networks



Meteorological related networks, like: WIGOS, GSN, GUAN, GRUAN, GBON



a number of different ocean climate-related networks, in collaboration with GOOS

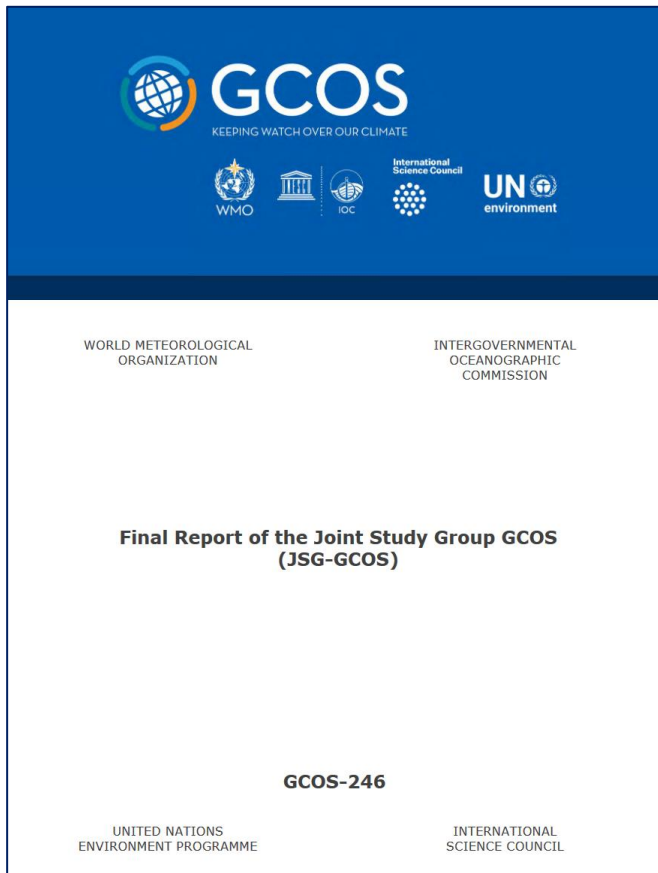


Examples of global networks associated with GCOS



and a wide range of other partners who support GCOS, host data centres, etc

GCOS – Change of Leadership and of MoU



New Director of the GCOS Secretariat Mr Nir Stav

Previous Executive Director of the
Israeli Meteorological Service



New Chair of GCOS Steering Committee Ms Thelma Krug

INPE, National Institute for Space Research of Brazil
Previous vice-chair of IPCC

Thanks!

