

FOLLOW-UP TO WMO-ISC-IOC-UNEP GLOBAL CLIMATE OBSERVING SYSTEM (GCOS) REVIEW AND GCOS IMPLEMENTATION PLAN 2022



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Producing the GCOS Implementation Plan

GCOS has a 5 year cycle of monitoring the climate observing system → **GCOS Status Reports** → **GCOS Implementation Plans** based on extensive consultation and public review

2021-2022 GCOS updates ECV requirements

2022 GCOS Implementation Plan and 2022 ECV requirements → Submission to UNFCCC

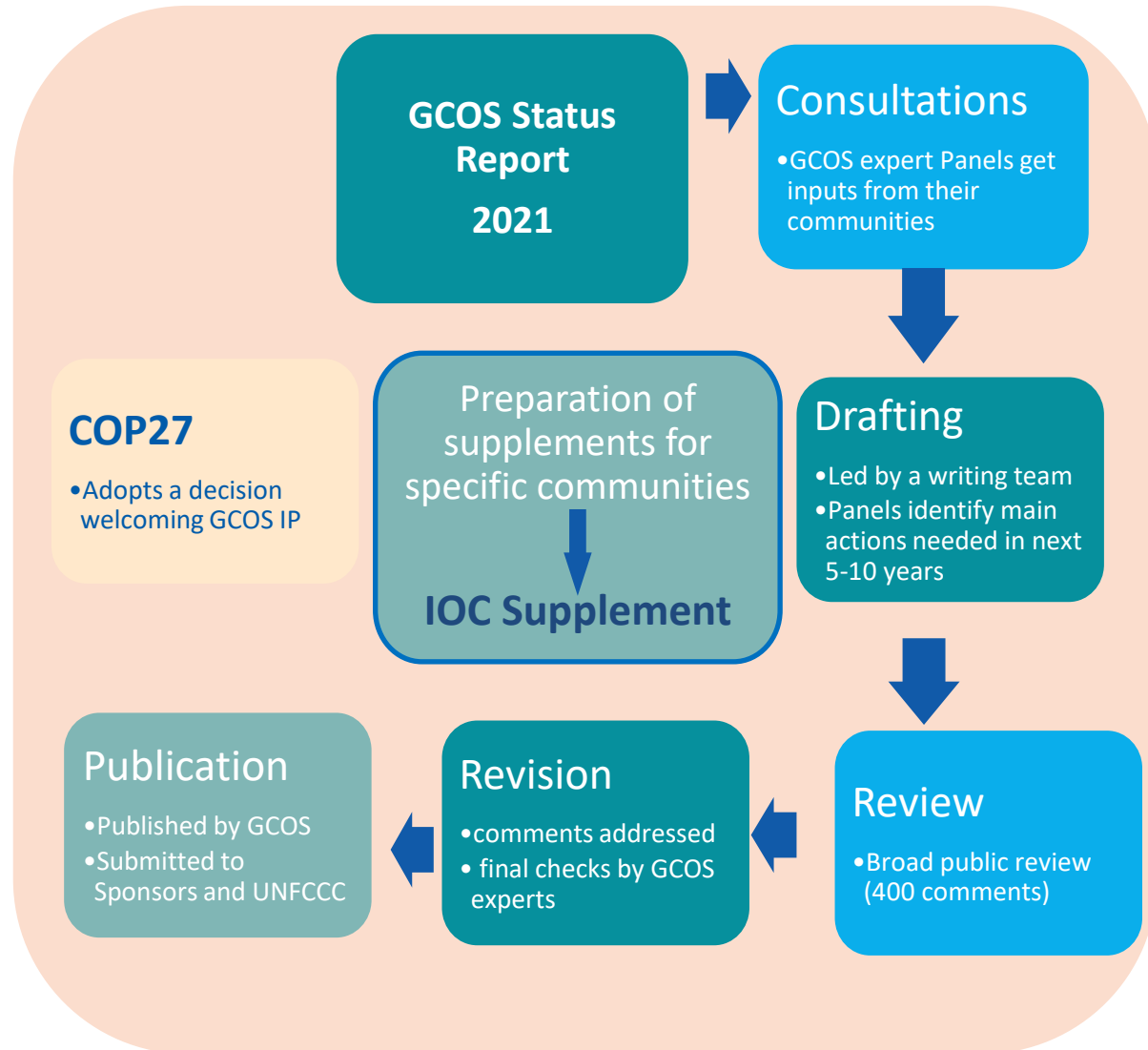
2021 GCOS Status report → Submission to UNFCCC

GCOS monitors performance of global observing system for climate

2016 GCOS Implementation Plan

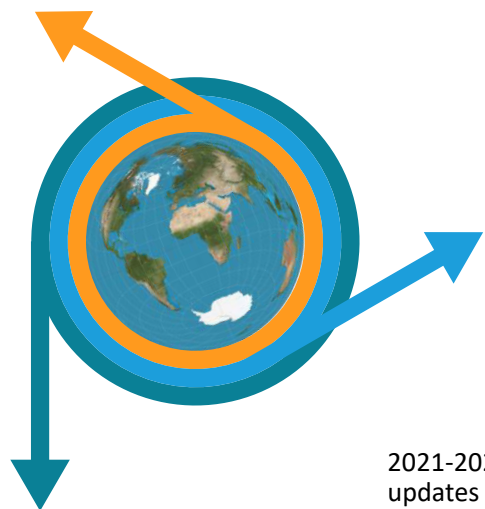
Earlier Status Reports and plans

2022 GCOS Implementation Plan



Essential Climate Variables and Essential Ocean Variables

GCOS Implementation Plans are built around the **Essential Climate Variables (ECVs)**. The Ocean ECVs are a subset of the **Essential Ocean Variables (EOVs)**, and they are custodied by the Ocean Observations Physics and Climate panel (OOPC).



2021-2022 GCOS updates
ECV/climate EOVs requirements

2022 GCOS Implementation Plan and 2022 ECV requirements → Submission to UNFCCC

2021 GCOS Status report → Submission to UNFCCC

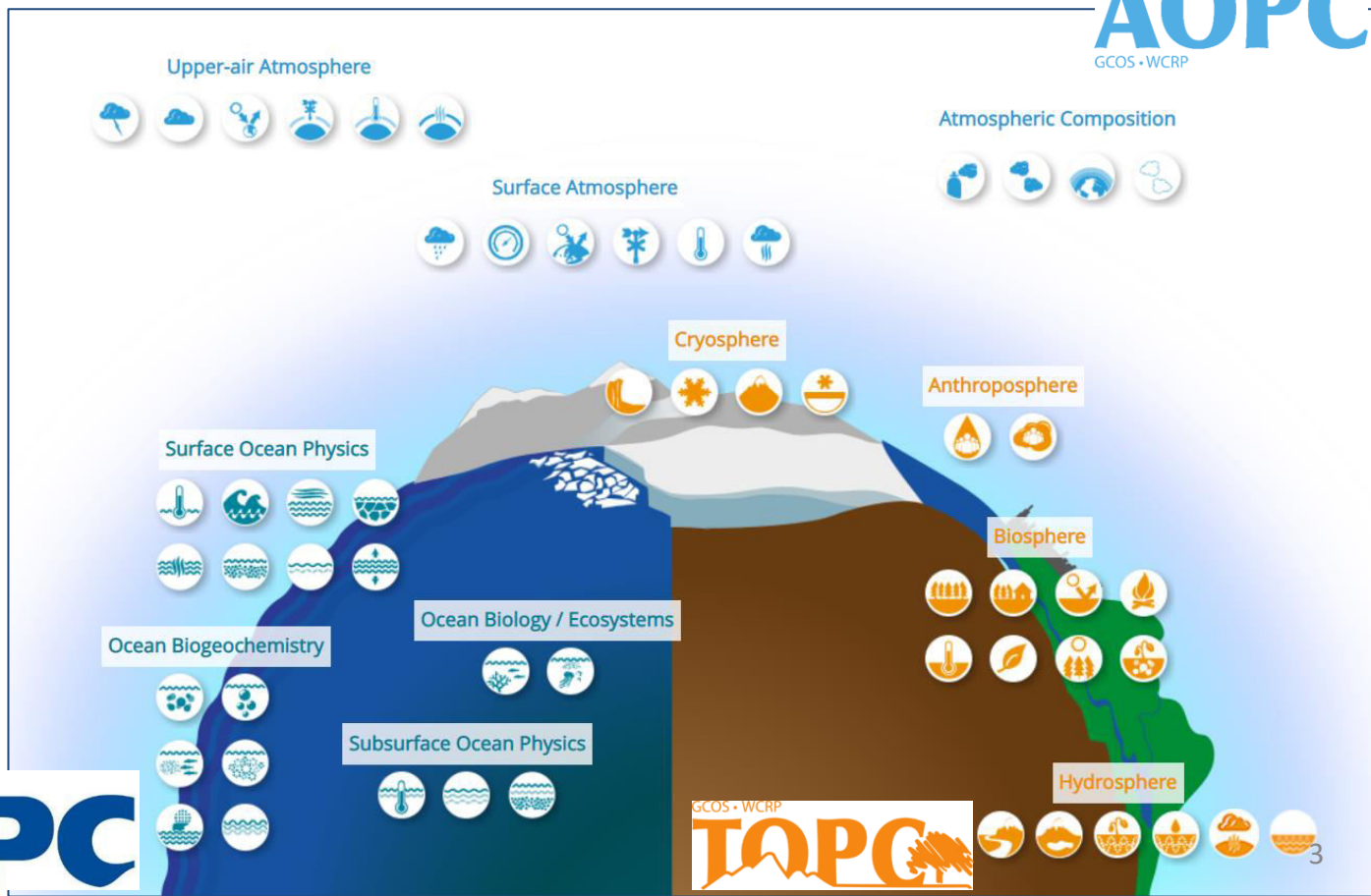
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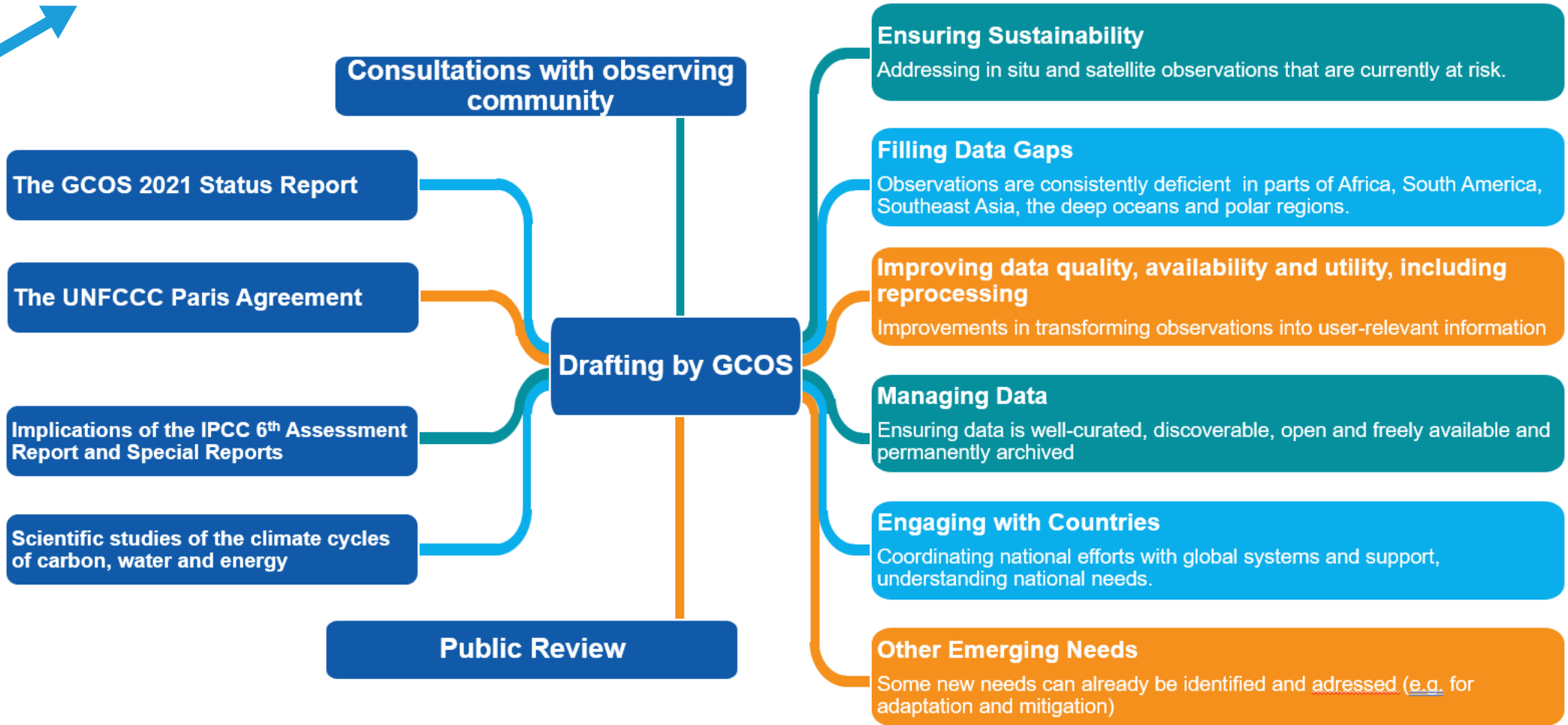
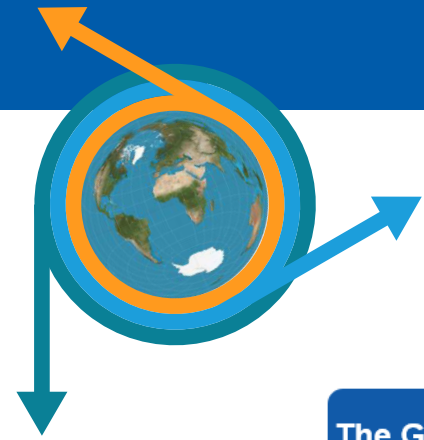
Earlier Status Reports and plans

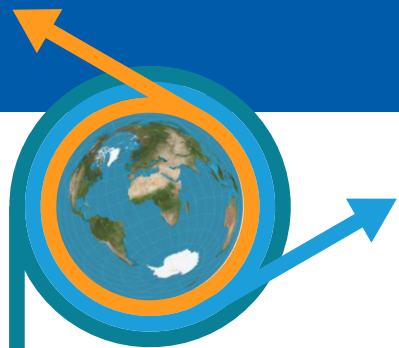


GCOS • GOOS • WCRP



2022 GCOS Implementation Plan





A: ENSURING SUSTAINABILITY

- Ensure necessary levels of long-term funding support for in-situ networks, from observations to data delivery

B: FILLING DATA GAPS

- B2. Development and implementation of the Global Basic Observing Network (GBON)
- B4. Expand and build a fully integrated global ocean observing system
- B7. Augmenting ship-based hydrography and fixed-point observations with biological and biogeochemical parameters
- B8. Coordinate observations and data product development for ocean CO₂ and N₂O
- B9. Improve estimates of latent and sensible heat fluxes and wind stress

C: IMPROVING DATA QUALITY, AVAILABILITY AND UTILITY, INCLUDING REPROCESSING

- C1. Develop monitoring standards, guidance and best practices for each ECV

D: MANAGING DATA

- D2. Ensure Global Data Centres exist for all in situ observations of ECVs

E: ENGAGING WITH COUNTRIES

- E1. Foster regional engagement in GCOS

F: OTHER EMERGING NEEDS

- F3. Improve monitoring of coastal and Exclusive Economic Zones

ГЛОБАЛЬНАЯ СИСТЕМА
НАБЛЮДЕНИЙ ЗА КЛИМАТОМ
НЕУСТАННО СЛЕДИМ ЗА КЛИМАТОМ

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

النظام العالمي
لرصد المناخ
لنصبح المناخ بتحت أعيننا

全球气候观测系统
密切监视气候

SISTEMA MUNDIAL
DE OBSERVACIÓN DEL CLIMA
SIEMPRE VIGILANDO EL CLIMA

GLOBAL CLIMATE
OBSERVING SYSTEM
KEEPING WATCH OVER OUR CLIMATE



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GCOS Review: Joint Study Group GCOS

GCOS programme 30y old + WMO major constituent reform in 2019

WMO-IOC-ISC-UNEP Joint Study Group established to review GCOS governance and structure

JSG-GCOS Activity

- 15 members representing current GCOS co-sponsors and other GCOS stakeholders.
- Work organised around subteams looking into different aspects
- One Interim Report in April 2021
- Regular meetings since January 2021 –October 2021

MoU
revised to:



Distinguish between the programme ambition (long-term) and its technical execution (short-term, more flexible)

Clarify the functions and responsibilities of the MoU signatories/GCOS sponsors

Reflect the link between GCOS and UNFCCC including support of the Paris agreement and its global stocktake

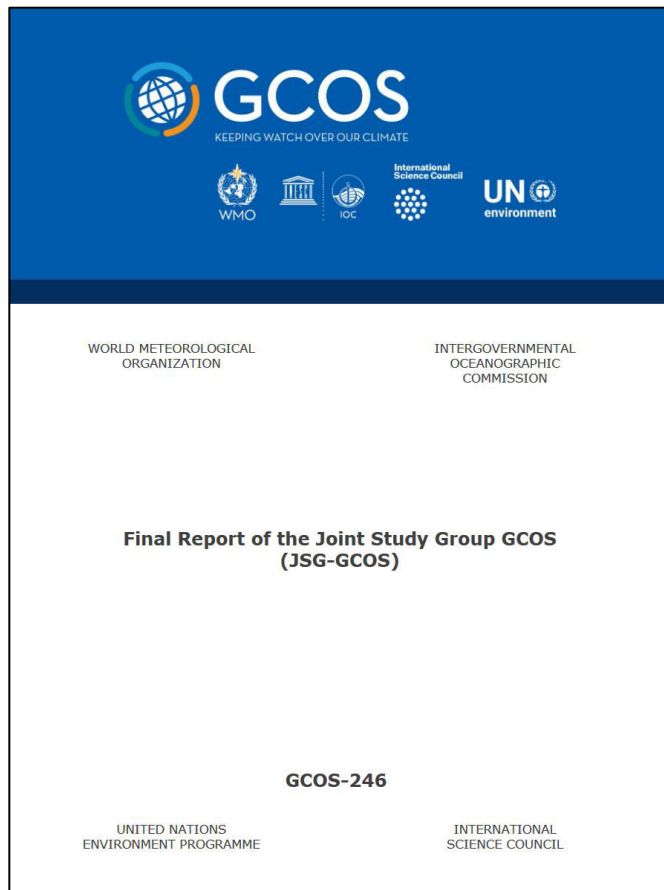
Ensure a proper engagement of GCOS stakeholders (including satellite agencies)

Martin Visbeck (IOC) and Qingchen Chao (WMO) co-chairs of the JSG GCOS

Joint Study Group GCOS: Request to IOC Assembly

Six High-level Recommendations to GCOS

1. **Revise existing MoU**
2. **Enhance closer collaboration between GCOS panels**
3. **Improve its engagement with stakeholders and partners**
4. **Continue to address new challenges evolving, revising and improving utility of Essential Climate Variables**
5. **MoU should clarify the role of GCOS as an independent group of experts to UNFCCC**
6. **Establish regular structured dialogue between GCOS sponsors and GCOS Steering Committee**



Thank you



**GLOBAL CLIMATE
OBSERVING SYSTEM**

KEEPING WATCH OVER OUR CLIMATE



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