



**GCOS STEERING COMMITTEE**

**THIRTIETH SESSION**

GCOS SC-30, 7–8 December 2022

Virtual Session

**GCOS Cooperation Mechanism (GCM)**

**Future of GCOS Cooperation Mechanism**

The Steering Committee is asked to consider the information provided in this document and discuss the future of the GCM. It should decide on the necessary activities to take place in 2023.

**DRAFT DECISION (8)**

The Steering Committee decides that GCOS should refocus the GCM on areas that are not supported by the SOFF. Initially TOPC should consider how the GCM can, in the future, support hydrological observations by identifying sources of support, identifying stations that are most in need of support and coordinating with relevant observing organisations and support agencies.

**Summary:**

This agenda item was requested by the Steering Committee in Action SCV 29/12.

<p><b>ACTION SC 29/12</b></p>	<p>The GCOS Network Manager shall ensure communication between the GCM and SOFF.</p> <p>The GCOS Secretariat shall add an item on the future of the GCM to the agenda of the next session of the Steering Committee, after the reports of the JSG are finalized.</p>
-----------------------------------	--

## Background

- 1) The GCM is the system improvement and resource mobilization activity of the GCOS programme. It has been established following a decision by the UNFCCC SBSTA in 2004 (UNFCCC Decision 5/CP.5) in order "to enable developing countries to collect, exchange, and utilize data on a continuing basis in pursuance of the UNFCCC". Since then, approximately 4 million USD was raised to accomplish projects dedicated to improving climate observation systems.
- 2) In 2022 the UNFCCC at COP 27

*Emphasized the need to address systematic observation gaps, particularly in developing countries and for ocean, mountain, desert and polar regions and the cryosphere in order to improve understanding of climate change, climate-related risks and tipping points, and adaptation limits and to ensure enhanced delivery of climate services and early warning systems and*

*Noted with concern the existing gaps in the global climate observing system and recognizes the need to enhance the coordination of activities by the systematic observation community and improve its ability to provide useful and actionable climate information for mitigation, adaptation and early warning systems, as well as information to enable understanding of adaptation limits and of attribution of extreme events.*

*FCCC/SBSTA/2022/L.20/Add.1*
- 3) The objectives of the GCM are to:
  - Agree on the high priority deficiencies in the global observing systems for climate (including data management elements) in developing countries based on firm scientific analyses and on ways to address these deficiencies through existing funding mechanisms and/or through the GCM Donor Fund. The Board determines its priorities, in light of existing international and national activities to improve global observing systems for climate.
  - Establish and operate appropriate procedures for developing funding proposals, managing the allocation of funds, monitoring implementation activities and liaising with relevant national and international institutions and mechanisms.

## Summary of status of the GCM

- 4) Current Status
  - 3 Projects were completed in 2021 (Armenia; Maldives; Tanzania).
  - No new donations in 2021 or 2022.
  - No current projects.
- 5) GBON (Global Basic Observing Network)
  - GCOS Network Manager drafted monitoring/assessing criteria for GBON Implementation + part of WMO secretariat support to GBON Task-Team.
  - GCOS Upper Air Network (GUAN) requirements are mostly directly consistent with GBON.
  - GCOS Surface Network (GSN) requirements are only in-directly consistent with GBON as no daily/monthly CLIMAT.
  - GBON requests sustainability of stations going forward but no requirements around long-term stations.

- 6) GBON-SOFF (Systematic Observations Financing Facility)
- GCOS Network Manager providing technical support to SOFF secretariat. Attended Vienna workshop for the SOFF peer-advisors. Could provide technical support to the WMO technical authority (to be agreed).
  - SOFF will use the GBON criteria to monitor/assess GBON compliance for SOFF supported countries. Likely to push for enhanced criteria (i.e. quality of measurements) to show full benefit to the funding agency. Ongoing funding will be results based.
  - SOFF has decided on the first 26 countries to undergo the 'readiness' phase. Most of these countries are also deficient in their operation of GUAN and GSN.
  - Suggestion: As part of the 'readiness phase' (National Contribution Plan), information on historical data records is documented and any data rescue needs.

### **Possible way forward with GCM**

- 7) While originally conceived with a wide remit across all climate observations, the GCM has recently supported meteorological observations. This role is now being superseded by the SOFF and GCOS is providing support to its establishment. The SOFF has significantly greater resources than the GCM ever raised
- 8) However, there remain many other areas of climate observations where support is needed that will not be supported by the SOFF in the near future and the GCM can, potentially, fill some of this gap. The 2022 GCOS IP discusses gaps in hydrological observations in Action B5: Implementing global hydrological networks where persistent gaps in observations and reporting have existed for decades in some parts of the world.
- 9) Therefore, the secretariat proposes that the focus of the GCM should move to supporting hydrological observations. TOPC could lead on the:
- Identification of potential sources support
  - Identification of criteria for sites to be supported. E.g.:
    - Stations that provide important regional climate information;
    - Stations needed for early warning of floods, especially large-scale events;
    - Stations that can be used to calibrate and validate satellite observations.
  - Support could be either for renovating existing stations, creating new stations or improving data reporting to international data centres.
  - Coordination with WMO and GTN-H to refine areas for support and assisting in identifying sources of support.
  - Discussions with global data centres (e.g. GRDC) on areas most in need of support.
- 10) The criteria for success would be increases in the amount of data exchanged internationally.
-