

GCOS Steering Committee

WMO and INFCOM Update

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WMO OMM

World Meteorological Organization

Organisation météorologique mondiale

INFCOM-2



Held 24 to 28 October 2022
Geneva, Switzerland

Decisions relevant to GCOS

1. GSRN

- **Endorse Implementation Plan**
- **Call for stations**
- **GSRN Lead Centre to establish pilot**

2. GCOS-IP

- **Requests INFCOM to review and respond to relevant actions**
- **Recommends to EC and Congress**

3. JSG-GCOS

- **Reinforces the need for and the mandate of GCOS**
- **Calls for support**
- **EC will request the drafting of a revised MOU**

GHG Monitoring and the Paris Agreement

Parties to the Paris Agreement aim to hold increase in global mean temperature well below 2.0° C (preferably 1.5°) via reduction of GHG emissions;

This is not a simple and straightforward proposition!

HE Amb. Carlos Fuller, former SBSTA Chair (WMO Climate Policy Advisors Meeting, 2022): “What matters for climate is not how much carbon humans pump into the atmosphere; what matters is how much of it remains there at any given time!”

This means that successful mitigation requires monitoring and understanding of all GHG fluxes, natural as well as anthropogenic.

In collaboration with the broader greenhouse gas monitoring community, WMO is therefore developing a framework for a multi-model, coordinated global GHG monitoring system that will provide consolidated, top-down, monthly estimates of net GHG fluxes at a global 100 by 100 km resolution as input to the

- Scientific community
- Global Stocktake;
- Work programme for urgently scaling up mitigation ambition and implementation;
- IPCC Assessment Reports;
- National Inventories;



WMO Executive Council 75, June 2022, established a

WMO Joint Study Group on GHG Monitoring Infrastructure,

tasked with developing a full monitoring system concept to be presented to the World Meteorological Congress in 2023.

The Study Group has structured its work around four main aspects:

- A. Landscape analysis;
- B. Core GHG monitoring system capabilities and output data;
- C. Input data requirements (*observational data requirements, data gaps, observing network design, financial support mechanisms*);
- D. System output: Downstream applications and user services (*user community, postprocessing and connection to services*).

The Study Group has been working intensively since its first meeting in August 2022, and is now preparing documentation for EC-76 (February-March 2023), putting the GHG Monitoring effort on a path toward a potential decision by WMO Congress in May/June 2023

GBON Implementation (see [website](#) and [FAQ](#))

- INFCOM established TT-GBON under Management Group
 - Operating Plan with 11 Activity Areas; **21 out of 27 deliverables completed**
- Key deliverables
 - Process for the designation of GBON stations
 - Global gap analysis as of January 2022
 - [GBON Compliance criteria](#)
 - WDQMS webtool
 - [GBON Webtool](#) showing designated stations
 - GBON Guide recommended by INFCOM-2 (goes to EC-76)
 - Guidance on [national GBON contribution plan](#) and [gap analysis](#)
 - Guidance on Tender Specifications for [AWS](#) and [Upper Air Stations](#)
 - WIS Technical Regulations and guidance on [reporting of hourly observations using BUFR](#)
 - Guidance on designation of GBON stations using OSCAR/Surface
 - Guidance for SOFF Peer Advisors



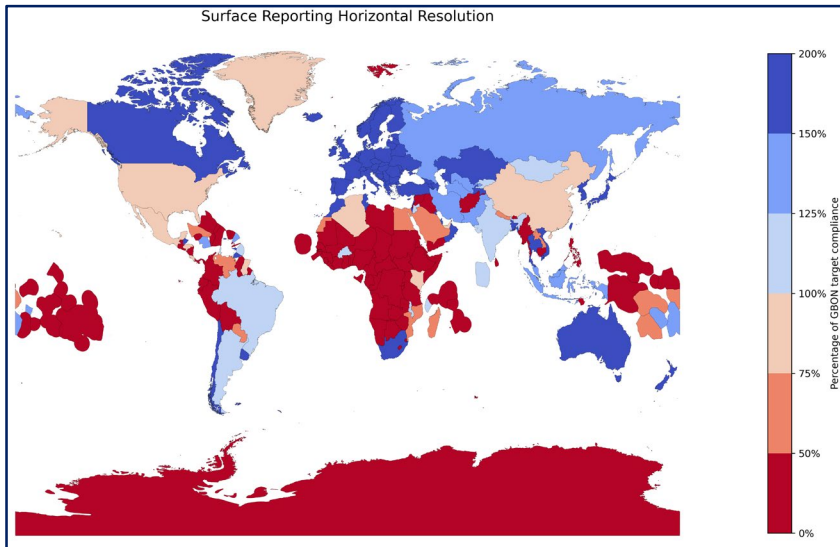
Towards initial composition of GBON

- Initial seeding done on 8 September 2022 in OSCAR/Surface based on green/orange/purple stations in [WDQMS](#)
- Circular letter to Members on 15 August asking them to designate GBON stations by 15 November 2022 (see [website](#))
- [GBON Webtool](#) showing designated stations
- INFCOM-2 adopted [recommendation on initial composition of GBON](#), where INFCOM president was given authority to recommend the list of GBON station to Congress (2nd half of 2023)
- Cg-19 in May 2023 to adopt initial composition of GBON
- Then do compliance monitoring



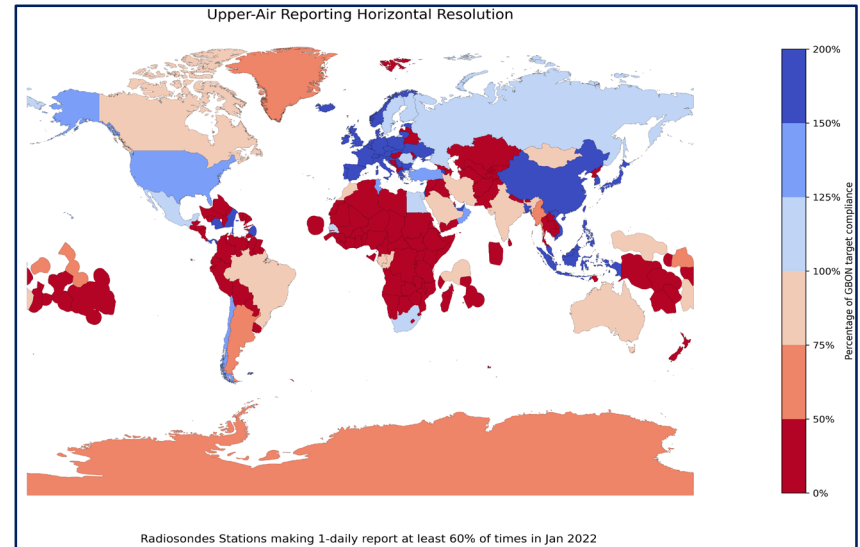
GBON Gap, January 2022

Surface observations



Gap in SIDS and LDCs (standard density): **596 surface stations**; existing network (actively reporting) delivers roughly **9% of required number of observations**;

Upper air observations



Gap in SIDS and LDCs (standard density): **139 upper air stations**; existing existing network delivers roughly **8% of required number of observations**;

SOFF opened door for business 1st July 2022

- **SOFF UNMPTF:** In the first six months 9 donors (NDF, Austria, Denmark, Finland, Iceland, Ireland, Norway, US, Spain) have pledged close to 50M USD for the first implementation period.
- **SOFF becomes operational:** SOFF Steering Committee adopted first batch of programming countries (26) to receive readiness support from April 2023
- **COP27 proved strong support for SOFF:**
 - Decision on Systematic Observation and the UN Early Warnings for All initiative as part of the COP28 Sharm-El Sheikh Implementation Plan, with SOFF as a foundational element
 - SBSTA 57 conclusions included parties noting with appreciation the progress in supporting systematic observation, including SOFF
 - Great momentum and visibility including in the SOFF event that included high-level speakers from the SOFF Funders, Beneficiary Countries, Private Sector and the economic perspective with Kristalina Georgieva, IMF Managing Director,

Looking ahead – 2023

- **SOFF operations:**
 - Steering Committee decisions by November 2023 for SOFF readiness support to 55 countries
 - Steering Committee decisions on first batch of programming countries for investment support
- **Expanding SOFF funding base:** Continued SOFF resource mobilization efforts aiming at increasing the funding base from 9 to 13 Funders by COP28
- **Strengthening collaboration with multilateral climate financing mechanisms:** Collaboration notes to be developed with the Adaptation Fund, Global Environment Facility, Green Climate Fund, Climate Investment Funds and the Climate Risk and Early Warning Systems (CREWS)

Next Steps

WMO

- GBON implementation supported by SOFF
- Exploration of expansion of GBON into other domains (hydrology, oceans, atmospheric composition)
- Increased availability of modelling and derived products

GCOS

- Monitoring of availability of ECVs
- Implications of the SOFF for WCM
- Anticipated improvement in coverage and availability of some ECVs
- Long term occupancy of stations



Thank you Merci



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