

Support to Operational Climate and Greenhouse Gas Monitoring

CGMS-52 Plenary

Jörg Schulz, session facilitator and rapporteur

Recommendations - Actions - Greenhouse Gas Monitoring (1)

Decision:

1. CGMS Working Groups will support the renewal of the GHG roadmap and confirmed Simon Elliott (EUMETSAT) as CGMS representative in the WGClimate GHG Task Team. He will support the GHG roadmap update and track implementation with the CGMS Working Groups.

Agreed actions:

1. WGClimate to update the GHG roadmap supported by CGMS working groups. Deadline: CGMS-53
2. WMO G3W will consult with the WGClimate on the update of the GHG roadmap and will function as reviewer to ensure fitness for purpose, e.g., on coordination and co-developments of calibration/validation activities. Deadline: CGMS-53 (it is expected that work is finished by end of 2024 but reporting and endorsement of renewed roadmap will be in spring 2025).

Recommendations - Actions - Greenhouse Gas Monitoring (2)

Agreed actions:

2. Discuss and agree on WGClimate involvement in the G3W planned workshop on optimal network design (as indicated on slide 8 of G3W talk). Deadline: Q3/2024.
3. Discuss and agree on content and frequencies of GHG satellite capability communication. Deadline: CGMS-53.
4. Develop a COP30 in 2025 thematic programme of common interest together with GCOS. WGClimate was planning side meetings - needs to happen late 2024, early 2025.

Recommendations to Plenary:

1. WGClimate recommends a (semi-)annual meeting of the Co-chairs/leads of WGClimate, its GHG Task Team, and the CGMS Working Groups with outcomes being reported to CGMS Plenary.

Decisions – Actions - Recommendations – Operational Climate Monitoring (1)

Decision:

1. Endorsed the nomination of Vincent-Henri Peuch (ECMWF) as new Vice Chair of WGClimate. Nomination needs confirming by the CEOS Plenary in October at which point it will enter into force.

Agreed actions:

1. GEO-Ring project to analyse the data policy situation for usage of data within cloud infrastructures and dissemination of their historic and current geostationary imager data (inclusive of levels containing count data and calibration coefficients) with agencies participating in the GEO-Ring project and to define a way forward. Deadline: CGMS-53.

Decisions – Actions - Recommendations – Operational Climate Monitoring (2)

Recommendations to Plenary:

1. CGMS agencies to consider granting permission for their historic and current geostationary imager data (inclusive of levels containing count data and calibration coefficients) to be redistributed freely and without restrictions from cloud infrastructures and data stores to the benefit of users.
2. Agencies with interest in participating in the GEO-Ring work to contact Jörg Schulz (EUMETSAT, Joerg.Schulz@eumetsat.int) and Andrew Heidinger (NOAA, Andrew.Heidinger@noaa.gov) to discuss possible involvement. This can be on providing data, support integration of data into the L1 GEO-Ring, performing applications on the GEO-Ring data, e.g., deriving L2 and provide feedback to the project.

Other:

1. CGMS Plenary encourages the GEO-Ring project to consider wider impact of its work, e.g., on data policies in future lesson learnt exercises.
2. CGMS Plenary encourages the GEO-Ring project to evaluate production and dissemination of GEO-Ring data at low latency (~5 days) and explore further extensions with imager data from polar orbit to become truly global and with atmospheric sounding instrument data

HLPP Update on Climate

HLPP – Climate (1)

5.1 Update ECV Inventory of Climate Data Records, Gap Analysis and Coordinated Action Plan (CAP) of CEOS and CGMS and report on status of the implementation of the CAP

Note 1: This task is cyclic, the update of the ECV Inventory is annual, while gap analysis and CAP are covered approximately every 2 years including endorsement by CEOS and CGMS).

Note 2: Gap analysis parts regarding the space segment have relevance to the WG-III risk analysis and future collaboration/synergy would be helpful.

5.2. Interact with the secretariat of the United Nations Framework Convention on Climate Change (UNFCCC) and report to the UNFCCC Subsidiary Body for Scientific and Technological Advice (SBSTA) to foster the usage of satellite data in the context of the Paris Agreement, in particular results from the operational GHG monitoring system

Note 1: This target is cyclic with regular annual reporting at Conferences of the Parties.

HLPP – Climate (2)

5.3 Provide support to GCOS for the status report on the GCOS Implementation Plan and respond to updated GCOS IP after new versions of it issued by GCOS

Note 1: This task is cyclic and executed approximately every 5 years depending on GCOS' schedule.

Note 2: The support to the status report is based on the gap analysis based on the ECV Inventory. CGMS agencies are invited to review the response.

5.4 Foster the implementation of the architecture for climate monitoring from space by strengthening the analysis of use cases for climate data records to increase usage in climate services and science.

Note 1: This task is continuous.

Note 2: CGMS agencies and scientific working groups are encouraged to contribute use cases to demonstrate the value of climate data records for decision/policy making.

HLPP – Climate (3)

5.5 Engage with G3W and other user programs (e.g., UNEP IMEO, Methane Pledge) in the development of requirements for an integrated global greenhouse gas observing system on both space-based and surface-based assets

5.6 Coordinate the specific CGMS contributions to the operational GHG constellation through the JWGClimat e Task Team on GHG monitoring

Note 1: This covers activities on mission coordination, inter-calibration, product prototyping, data distribution, exchange, and formatting, as well as training and outreach activities.

5.7 Develop lessons learnt on impact of delivery made to the 1st UNFCCC Global Stocktake and provide advice for the future.

Note 1: Involvement in Global Stocktake activities needs potentially a high level of resources (time and personnel) to create impact. Action needs to advice on balanced approach.

