

# *GCOS Steering Committee*

## Item 2 - comments from sponsors



Supported by the European Union



WMO

Anthony Rea



# What benefits do you get from GCOS?

- Ensuring that WMO requirements and regulations include climate needs
- Ensuring that WMO plays a leading role in global climate observations
- Support for WMO activities via synergies with climate (e.g. GBON)
- Ensuring that climate monitoring is coordinated across a broad range of organisations
  - Joint working structure with other international organizations in areas beyond WMO strengths
- Contribute to integration of space and surface based observing system into WIGOS
- Development of reference networks

# How do you contribute to GCOS?

- Implement observing systems to satisfy the ECV requirements
  - Includes GCOS into the development of networks, regulations and guidelines
- Making the WIGOS technical system available for GCOS to manage its networks and requirements
  - WDAQMS, OSCAR, RRR, WIS ...
- Provides Supports the director and assistant, Admin & IT support, office space etc.
- Funding

# How do you see your future relationship with GCOS?

- WMO would like to see
  - More guidance and support from Sponsors
  - GCOS assistance in Earth System approaches
  - Closer integration of needs and requirements of GCOS into WMO's regulations and guidelines
  - GCOS as a platform for collaboration across multiple domains
  - Future development of GBON and SOFF to cover climate needs (initial idea from Fiji Workshop)
  - Support the development of reference networks and use of their results in meteorological networks
  
- Joint Study Group should develop these issues





United Nations  
Educational, Scientific and  
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Intergovernmental  
Oceanographic  
Commission



Sustainable  
Development  
Goals

*One Planet, One Ocean*

# IOC

*GCOS Steering Committee*  
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V. Ryabinin

Executive Secretary, IOC/UNESCO

*GCOS SC-28, 24 November 2020*



# What benefits does IOC get from GCOS?

*From most to least fully realized (and so a comment on opportunities):*

- Direct and authoritative **voice with UNFCCC** on systematic observations
- Engagement point with **satellite agencies** for long-term planning on (ocean) ECVs
- Consistent framework to **evaluate** requirements for climate observations across domains
- Partnership to **improve delivery and evaluation of priorities**: through engagement of relevant scientific communities (WCRP, climate impacts) and IPCC WG 1&2
- **Advocacy for sustaining** the work of the ocean observing community and GOOS
- Identification of how an implemented GCOS will also underpin **delivery of climate services**
- **Guidance** to IOC Member States on implementing a system for taking and acting on climate information

# How does IOC contribute to GCOS?

- **Staff:** 1 OOPC officer @WMO majority funded through the US IOC focal point (NOAA contribution)
- **Activity:** OOPC activity funded **75% from IOC** (\$ 30k/yr), 25% from GCOS trust fund (10k CHF/yr) (+small contributions from WCRP in travel)
- **GCOS input from GOOS**
  - **IOC** is the main funder of GOOS (3.5 FTE staff, \$250k/yr activity), US IOC focal point is major funder of OceanOPS (ex-JCOMMOPS) metadata centre (add'l 6 FTE). WMO, UNEP, ISC co-sponsors as well.
  - **GOOS** evaluation/review **machinery working through OOPC for GCOS**, defining requirements for physical, biogeochemical, and biological ECVs, metadata and status reporting, supporting statements/posters at UNFCCC events



# How do you see IOC's future relationship with GCOS?

- *Ocean observing community*
  - Can GCOS realize an expanding set of benefits (slide 1), leading to a more sustained climate observing system?
- *IOC Member States*
  - Do GCOS outputs have impact on the work of Member States?
- *Joint WMO-IOC-UNEP-ISC Study Group for GCOS*
  - representation from **IOC MS** (vice-chair Karim Hilmi), **scientific** community (co-chair of JSG Martin Visbeck), **ocean observing** community (**GOOS** co-chair Toste Tanhua, OOPC co-chair Sabrina Speich)
- *Ocean observing challenge in the #OceanDecade*
  - expect transformation of GOOS in the coming Decade: technological innovations, new partnerships



ISC

Mathieu Denis



# What benefits do you get from GCOS?

The ISC benefits from GCOS' global **networks of experts** and from the **observing system capabilities**, that provide our community of scientists with **data and information** they need to develop new insights and synthesis work.

GCOS and the other co-sponsored programmes also help build the ISC's ambition to be an **international and credible global voice for science**. Through its networks and partnerships the ISC has the capacity to convene critical debates for the **future of global science** and the articulate the **public value of science**.

# How do you contribute to GCOS?

Supporting good scientific practice, for example by working with the other co-sponsors to appoint the SC and provide strategic programme guidance.

Engaging the academic community (national academies and research funders as well as international scientific unions) in GCOS activities.

Advancing the free and responsible conduct of science globally.

Amplifying the reach of GCOS by involving its community in ISC's communications and outreach activities (blogs, interviews, Global Science TV, etc.)

Working with GCOS to help disseminate publications and messages through our international network of members and partners



# How do you see your future relationship with GCOS?

With the other co-sponsors, we are currently involved in the Study Group reviewing the co-sponsors' current roles and responsibilities (ISC Governing Board member Martin Visbeck co-chairs the Study Group)

We could explore further ways of amplifying the reach and entrainment of experts to GCOS via ISC communication channels.

Engage with GCOS and other programmes (WCRP, GOOS, Future Earth, etc.) to create momentum around COP26.

UNEP

Hartwig Kremer



# What benefits do you get from GCOS?

1. ECVs are most relevant backbone of the Global Environment Monitoring Activities in UNEP
2. Of key relevance are atmospheric, hydrological and ocean variable
3. Ensuring harmonized high standard observations and establishing context with the SDGs related to SDG 6 (water), 13 (climate), 14 (oceans), etc. are to be mentioned
4. Direct and indirect co-benefits are to be found in the key assessments UNEP engages in in partnership/is leading on such as the IPCC, the IPBES and GEO further the EGR
5. They do further inform monitoring and observations relevant for the science policy interface at scale i.e. Regional Seas and MEAs
6. Underrepresented so far is the focus on adaptation to global trends namely climate and its effects and how to measure adaptation and how to inform steps

# How do you contribute to GCOS?

1. UNEP is actively involved in the Steering Committee of GCOS and – currently through the Chief Scientist on the Study Group
2. It has been actively contributing to the Task Team on Observations for Adaptation – outcomes of which would be very welcome by UNEP and its sub programmes
3. UNEP promotes the concept and science of the ECV and EOVs in its work at regional scale including capacity building in the Regional Seas
4. The United Nations Environment Assembly provides the global environment focused science policy interface advocating for the relevance of high quality standardized observations and linking them to the Data Strategy Development requested by the Governments till 2025
5. UNEP through its analytical and assessment work investigates and provides context for climate and earth system observations, their interlinkages with e.g. health, ecosystems, natural capital at large and their relevance in informing societal transformation.



# How do you see your future relationship with GCOS?

1. UNEP will continue its engagement both in the GCOS Study Group (currently through the Chief Scientist) and the Steering Committee
2. Specific interest in the ECV context is on observations for adaptation progress, results and co-benefits. This liaises to the World Adaptation Science Programme, the Adaptation Futures Conference, and shall help identify urgent and future needs in research, policy, and action, with a focus on the developing countries
3. In regional terms UNEP will draw on the focus on the Cryosphere and engage in broadening focus on the hydrological cycle and looking at the Cascade system (*formerly known as Water Bodies of Concern*) –links here are between environment, global pressure trends and hazard risk
4. Key reports such as the Emissions Gap and Adaptations Gap Reports will draw on observations and close relations will evolve around UNEP's partnership based (alliance/consortium) approaches around Air Quality, Water Quality (WWQA) and Oceans (incl. coastal zones)
5. Worth considering are co-benefits of links between the GCOS based observations and the world environment situation room (partially this is happening already e.g. on atmospheric variables)

# Thank you



**GLOBAL CLIMATE  
OBSERVING SYSTEM**

KEEPING WATCH OVER OUR CLIMATE



WMO



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