



**GLOBAL CLIMATE
OBSERVING SYSTEM**



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GCOS STEERING COMMITTEE THIRTY FIRST SESSION

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Promote national engagement: GCOS National Coordinators

1. Introduction

This information document describes the progress made by the GCOS Secretariat in responding to the Decision of the GCOS Steering Committee on GCOS National Coordinators taken during the last virtual meeting held on 23/01/2024. More in general it is addressing the Actions of the GCOS Implementation Plan under the Theme E "Engaging with Countries", and in particular Action E2 "Promote national engagement in GCOS".

The GCOS Steering Committee is requested to provide their view and guidance to the GCOS Secretariat.

2. Background

There are two different contact points for GCOS at national level: 1) the GCOS National Focal Points for Networks, and 2) the GCOS National Coordinators for Climate Observations.

The **GCOS National Focal Points for Networks** (full name: National Focal Points for the Global Climate Observing System (GCOS) Networks), are a NMHS nominated contact at a technical level for data-related issues from national networks. Their role is to liaise within the NMHS (National Meteorological and Hydrological Services), and with other National institutes if appropriate, on GCOS related networks (currently GSN and GUAN) issues related to metadata, data availability and quality and inform the INFCOM Lead Centres for GCOS on current and potential problems that might impact data availability and quality. Normally, they are staff of NMHS.

The main role of the **GCOS National Coordinators for Climate Observations** is to promote communication between national systems and regional/global bodies to ensure that the best climate data is available at national level for science and adaptation. More specifically, their role is to:

- Communicate with the GCOS Secretariat, including reporting on national updates, and participate in international GCOS-related meetings and conferences;

- Advocate for high-quality, sustained, long-term national climate observation following GCOS ECV requirements and guidance;
- Promote the reporting and use of climate observations within the UNFCCC.

More in general, the GCOS National Coordinators are needed to cover the wide range of needs for climate observations, that at national level normally cut across many departments and agencies, rather than being limited to one agency, such as a meteorological service. GCOS would benefit from one single contact in each country who can provide the integrated view at national level on a regular basis. In most cases the national coordinating mechanism for climate observations do not belong to NHMS but to either Ministries of Environment or Foreign Affairs (and related agencies) and they are the delegates for the UNFCCC negotiations.

For more details see the Terms of Reference for the GCOS National Coordinators for Climate Observations given in the Annex to this document.

At their last virtual meeting in January 2024, the GCOS Steering Committee asked GCOS Secretariat (Decision No.2) to: (1) engage with countries to update the list of GCOS National Coordinators; (2) explore cost-effective ways of meeting with GCOS National Coordinators; and (3) work with them to explore the potential of national support for the GCOS programme.

3. Engage with the GCOS National Coordinators

This new phase of engaging with countries to promote their involvement in GCOS started with the identification of the GCOS National Coordinators, by checking the available list¹ of GCOS National Coordinators, which was known to be out of date.

In the last years the GCOS Secretariat was invited to participate in the annual coordination meeting of the Swiss GAW/GCOS Office and the German GCOS Office, that are very active in coordinating their national operational and research initiatives for climate observations. These meetings were the occasions to see the progress made by them at national level, but with global implications, and ensure consistency with the GCOS Implementation Plan. Other countries with a national GCOS mechanisms for coordinating climate observations in place are Austria, Ireland, and USA, among others.

The strategy adopted by the GCOS Secretariat was to approach those few GCOS National Coordinators that we are aware are still active. Taking advantage of the participation in the two above mentioned meetings of GCOS Germany and Switzerland, and of contacts with the GCOS Irish coordinator, the GCOS Secretariat set up interviews with their national coordinators to discuss the mutual benefit of the relationships under the GCOS frame.

The interviews were conducted at the end of May 2024 and a complete analysis of the results has not yet been concluded. Nevertheless, some common key points already emerged, as listed here below.

Annual meetings – All the three countries organize annual meetings on their national climate observing systems linked to GCOS, to report on progress, provide guidance, highlight gaps and needs, etc. GCOS has been regularly invited by Germany and Switzerland, participating either in-person or virtually, and will be invited soon also by Ireland. They all saw great value in the participation of the GCOS Secretariat.

National reports – The three countries produce national periodic (about every 5 years) reports stimulated by the GCOS work:

- the [2020 Status of Ireland's Climate](#)
- the [GCOS Switzerland Strategy 2017-2026](#)
- the [German Inventory report on the GCOS \(2023\)](#)

¹ https://gcoss.wmo.int/sites/default/files/national_gcoss_coordinators_2023_0.pdf?aNJDHtSi4xF9RicBROqTAMrE8bN_pxoN=

It was suggested to align the production of these reports with the delivery of the GCOS Status Report and Implementation Plan and give visibility to them through the GCOS website. A formal reporting mechanism to GCOS, following a consistent template to identify criticalities and future work, could also be beneficial.

ECVs – The ECVs are recognized as a reference list of variables for climate monitoring. Switzerland has an inventory report where all ECV measured in their country are listed (34 ECVs). The report describes, for instance, which variables are at risk, allowing for claiming financial support.

Funding – Access to financial support to the national climate monitoring system strongly rely on the GCOS activities, the GCOS IP and other GCOS reports.

UNFCCC - The German and Swiss GCOS National Coordinators are also the national delegates for the Research and Systematic Observations within UNFCCC. They provided useful suggestions for moving across UNFCCC SBSTA and interacting with other national delegates.

Policy – These three GCOS National Coordinators have links with national policy.

Enhancing interactions – It will be important to organize events gathering together all the GCOS national coordinators. Considering the current budget, a dedicated online forum could be organized as a first step.

GCOS Added Value – They all agreed that having an active GCOS programme in place is highly beneficial because it provides the justification for developing systematic long-term observations of ECVs at national level and facilitates obtaining the needed financial support. More in detail:

- Their national strategies for climate monitoring are based on the GCOS IP and other GCOS related documents and activities.
- The GCOS national mechanism is important to provide coordination and consistency across the wide range of players at national level.
- The link with GCOS helps in putting the national activities into the global context.

4. Way forward

These first interactions already provided useful insights. The intention now is to contact a few other countries, from different regions, that either have an operational GCOS National Coordination System, or we have good contacts with them, like, for instance: Brazil, Italy, Japan, Spain, and USA.

The additional collected inputs will allow us to produce a more consolidated understanding on the mutual benefit of these national interactions, and then develop a practical strategy for an effective national engagement in GCOS.

This strategy shall include the update and expansion of the GCOS National Coordinators list, considering the NMHS which have an office for coordinating climate observations, as well as the national delegates to the UNFCCC for research and systematic observations.

Once this list is consolidated, the second phase of interactions could proceed with an online survey, especially targeted to countries without a GCOS coordination mechanism and that may benefit from it.

Finally, a cost-effective way of meeting with them shall be established, to reinforce the relationships with them and explore the potential of national support for the GCOS programme, as requested by the GCOS Steering Committee.

Annex I - Terms of Reference for the GCOS National Coordinators for Climate Observations

Most of the climate observations that contribute to the global observing system for climate are performed under national auspices. The role of the GCOS National Coordinator is to promote communication between national systems and global bodies to ensure the best climate data is available at national level for science and adaptation.

The GCOS National Coordinator will:

- Provide a national focus to coordinate communication with the GCOS Secretariat, including updates on national GCOS activities, and, where appropriate, to participate in international GCOS-related meetings and conferences:
 - Provide the GCOS secretariat copies of any national climate observation report so they are aware of the overall status of the observing system;
 - Assist where possible in the exchange of information on the composition and performance of national components of GCOS networks with a view to enhancing the overall performance of the networks;
 - Work within an informal network of GCOS National Coordinators on priority GCOS issues common to all nations (e.g., funding, communications, training, data exchange, etc.);
 - Contribute to effective national coordination, amongst those responsible for the component systems of GCOS, including especially the WMO Integrated Global Observing Systems (WIGOS), the IOC-led Global Ocean Observing System (GOOS);
 - Ensure that important issues (e.g. funding, sustainability) are made known to the GCOS Secretariat for dissemination more widely as appropriate.
- Advocate for high-quality, sustained, long-term national climate observation of climate data, in particular:
 - Promote the adoption of the GCOS Essential Climate Variables (ECVs) for climate monitoring;
 - Promote adherence to the GCOS Climate Monitoring Principles and 'best practices' for climate observations;
 - Encourage the free and open exchange of all climate data;
 - Advocate for data rescue and the open and free exchange of digitised historic records.
- Promote the reporting and use of climate data within the United Nations Framework Convention on Climate Change (UNFCCC):
 - Promote the use of the 'Revised UNFCCC reporting guidelines on global climate change observing systems' (FCCC/CP/2007/6/Add.2) for facilitating reporting on the status of national components of GCOS;
 - Develop a close connection between climate monitoring, GCOS and national representatives to the UNFCCC, including the national delegations to its Conference of the Parties (COP) and Subsidiary Body on Scientific and Technological Advice (SBSTA).

It is intended that the GCOS National Coordinators will cooperate collectively in an informal network and that groups of National Coordinators will endeavour to meet from time to time, e.g., at SBSTA sessions, to discuss issues related to GCOS and provide advice to the GCOS Steering Committee and GCOS Secretariat.
