



**OPPORTUNITIES TO
IMPROVE CLIMATE
OBSERVING NETWORKS
THROUGH ENGAGEMENT
WITH THE UN FRAMEWORK
CONVENTION ON
CLIMATE CHANGE**

<http://gcos.wmo.int>



ICSU
International Council for Science



Engaging in the UNFCCC process

- Systematic observations of the climate underpin many of the issues considered under the UN Framework Convention on Climate Change (UNFCCC). The objective of the Global Climate Observing System (GCOS) Programme is to improve observations for climate in the atmospheric, oceanic and terrestrial domains, including the hydrological and carbon cycles, and the cryosphere.
- It is of particular importance that operational services and agencies, such as National Meteorological and Hydrological Services (NMHSs) and ocean services, be engaged in making these observations. These services, in close cooperation with research organizations and institutes, need to be involved in the UNFCCC process and participate in the implementation of the Convention to the extent possible. They also need to be aware of the outcomes of deliberations of the relevant bodies of the UNFCCC and of the implications of these outcomes to their work.
- Needs for systematic observations are regularly considered as part of the UNFCCC's Subsidiary Body on Scientific and Technological Advice (SBSTA), in particular, through its "Research and Systematic Observation" agenda item and the work area on data and observations under the Nairobi Work Programme on Impacts, Vulnerability and Adaptation to Climate Change. The Chairman of the Steering Committee for GCOS reports regularly to SBSTA, on behalf of WMO and the other sponsors of GCOS, on the status of global observing systems for climate. During SBSTA 33, held as part of COP 16 in Cancun, Mexico, GCOS formally introduced the 2010 update of the *Implementation Plan for the Global Observing System for Climate in Support of the UNFCCC*.¹ This report addresses the many actions required by countries and other "Agents of Implementation" to improve climate observing networks—including actions



The PR of Mali with WMO, Mr Mama Konaté, chairing the SBSTA Plenary at COP 16 in Cancun, Mexico.

¹ <http://www.wmo.int/pages/prog/gcos/Publications/gcos-138.pdf>

that, when implemented, will result in better networks in developing countries.

- A principal means for NMHSs to contribute to negotiations and deliberations on systematic observations is to attend relevant sessions of the UNFCCC. Work on drafting conclusions or preparing decisions addressing systematic observations is typically done in Contact Groups or Informal Consultations established to consider observation concerns. NMHSs can also contribute by participating in relevant intersessional activities, such as workshops and expert meetings. Therefore, it is helpful to have on one's national delegation to UNFCCC sessions and workshops an expert on climate observations who can contribute to deliberations on relevant issues. Some, but far too few, NMHSs are represented. Finally, NMHSs have a role in implementing relevant activities identified through the UNFCCC process, a role that may be enhanced in developing countries when technical and financial support is available from developed countries.



The Chairman of the GCOS Steering Committee, Professor Adrian Simmons, giving a statement at the SBSTA Plenary at COP 16.



Delegates discussing the draft at the informal contact group on "Systematic Observations" at SBSTA.



The PR of the Bahamas with WMO, Mr Arthur Rolle, and Mr Stefan Rösner, Germany (DWD), chaired the informal consultations that led to the adoption of SBSTA conclusions on systematic observations, Cancun, Mexico.

Engaging in the national implementation of UNFCCC provisions

- NMHSs, by both operating climate observing networks and providing climate services, have a significant role to play in assisting the development of national adaptation policies and in facilitating national economic development. By establishing the Cancun Adaptation Framework,² the COP has decided to attach the same level of significance to adaptation as to mitigation. Thus, all Parties are invited to enhance action on adaptation by, among other things, “improving climate-related research and systematic observation for climate data collection, archiving, analysis, and modeling in order to provide decision makers at national and regional levels with improved climate-related data and information.”
- Within this Framework and also considering other relevant provisions of the UNFCCC, several opportunities exist for NMHSs to be actively engaged in, and to benefit from, the implementation of the Convention. Such engagement can clearly lead to improved climate-related observing networks in most countries. For this reason, NMHSs are strongly advised to become members of their national climate change committees.
- Under the Cancun Adaptation Framework a process was established to enable least developed country Parties to formulate and implement national adaptation plans, building upon their experience in preparing and implementing National Adaptation Programmes of Action. In addition, an invitation was extended to other developing country Parties to develop similar plans. By participating in the development of these national adaptation plans, NMHSs can ensure that improving climate observing networks and services will be considered. Involvement in the development of these plans may also help NMHSs learn more about the needs of users of climate information.

The UNFCCC logo consists of the letters 'UNFCCC' in a bold, red, serif font. The text is positioned to the left of a large, semi-transparent red circle. A thin, red, wavy line extends from the bottom of the circle, curving upwards and to the right.

Richard Thigpen, GCOS

Climate data archive waiting for rescue and digitization in Tanzania.

² http://unfccc.int/files/meetings/cop_16/application/pdf/cop16_lca.pdf

Benefiting from support provided through the UNFCCC

- NMHSs should also be aware that the Parties to the Kyoto Protocol of the UNFCCC have created an Adaptation Fund.³ The Fund, which is financed with two percent of the Certified Emission Reductions issued for projects of the Clean Development Mechanism and other sources of funding, is available to finance concrete adaptation projects in developing countries. Such projects may include ones proposed by NMHSs. WMO has recently been accredited to the Adaptation Fund and thus can assist eligible governments in the development, implementation, and management of Adaptation Fund financed projects to adapt to climate change. Funding for adaptation in developing countries is also currently available through the Least Developing Countries Fund and the Special Climate Change Fund.
- The Cancun Adaptation Framework is part of a broader set of agreements known as the Cancun Agreements on Long-Term Cooperative Action (Decision 1/CP.16).
- Of special importance within the Cancun Agreements is the decision of the Parties to establish a Green Climate Fund. The Parties have called for a substantial amount of “new and additional, predictable and adequate funding” for developing country Parties for adaptation and mitigation activities. Funding is intended to include “fast-start finance” for the 2010-2012 period and “long-term finance” thereafter. It will be important for NMHSs to follow the development of this new fund, in particular, to ensure that relevant needs for climate observations are taken into consideration.
- The Cancun Agreements also establish a Technology Mechanism. Among the priority areas that the Parties have decided can be considered is improved observation systems and related information management. A Climate Technology Centre and Network will be established to provide developing countries with advice and to facilitate technology development and transfer, including the deployment of technology to meet identified needs.



Bill Lyons, World Bank

Farmers, such as this one in the Republic of Yemen, will likely have to adapt to a changing climate. Adequate funding for adaptation is important.

³ <http://www.adaptation-fund.org>

- Also of note in the Cancun Agreements is that developed country Parties are called upon to provide financial resources for enhanced action on capacity-building in developing countries through current and future operating entities of the financial mechanism, as well as through various bilateral, regional, and other multilateral channels.

Engaging in the national implementation of UNFCCC provisions

- The sponsors of GCOS — WMO, UNEP, the IOC, and ICSU — and the UNFCCC have all advocated the establishment of appropriate national coordination mechanisms for the implementation of GCOS on the national level. Such mechanisms include the appointment of a GCOS National Coordinator and the establishment of a GCOS National Committee. The need for improved coordination mechanisms has assumed great importance in recent years as the emphasis on climate change adaptation planning has grown and the links between climate and development have become more apparent. WMO Permanent Representatives have an important opportunity to take the lead in setting up essential observing system coordination mechanisms at the national level within their countries. The involvement of NMHSs in these committees may also lead to more comprehensive reporting on systematic observations in national communications. Finally, engagement with a National Committee may also facilitate participation of a specialist in climate observations in a country's national delegation to the UNFCCC.



Coordination at national and regional levels has the potential to improve climate observing systems.

- Finally, the GCOS Steering Committee recommends that NMHSs establish links with their national UNFCCC Focal Points. UNFCCC Focal Points should be able to help NMHSs understand how to apply for UNFCCC-established funding mechanisms and how to take part in relevant sessions in the UNFCCC process. Conversely, the more one's UNFCCC Focal Point understands NMHS concerns, the better that person can represent the NMHS at UNFCCC sessions.

A list of the national UNFCCC focal points can be found at:

<http://maindb.unfccc.int/public/nfp.pl>

*Installation of a weather and climate station
in the Republic of Benin.*



THE GCOS PROGRAMME

The Global Climate Observing System (GCOS) is sponsored by the World Meteorological Organization (WMO), the Intergovernmental Oceanographic Commission (IOC) of the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Environment Programme (UNEP), and the International Council for Science (ICSU).

Many observing systems contribute to the GCOS network of global observing systems for climate. In most cases they also serve other functions, such as weather forecasting or air-quality monitoring. The contributing systems include the climate-observing components of the IOC-led Global Ocean Observation System, the Food and Agriculture Organization-led Global Terrestrial Observing System, and the WMO Global Observing System and Global Atmosphere Watch. A number of other research and operational systems provide important contributions. The observations themselves may be ground-based, or from airborne or satellite systems. GCOS is both supported by and supports the international scientific community, and the World Climate Research Programme co-sponsors the expert panels set up by GCOS for the atmospheric, oceanic, and terrestrial domains. The composite observing system designated as GCOS serves as the climate-observation component of the Global Earth Observation System of Systems.

Along with the World Climate Research Programme, the GCOS underlies the proposed Global Framework for Climate Services (GFCS). A well-functioning GCOS is required for the success of this new framework.

Articles 4.1(g), 4.1(h), and 5 of the UNFCCC emphasize the need for Parties to promote systematic observation and to support efforts to strengthen climate observing networks. GCOS, through its mission to enhance climate observations, and in cooperation with its sponsors, makes a significant contribution to this goal. It has an important role to play in the initiative “The UN System Delivering as One on Climate Change.”

GLOBAL CLIMATE OBSERVING SYSTEM

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