

**INTER-COMMISSION / INTER-PROGRAMME ACTIVITIES**

**Report of CAS Representative to EC Working Group on WIGOS/WIS**

*(submitted by Chair, of OPAG EPAC)*

Purpose of Document and Major Decision(s) Requested

This document provides a summary of the activities in WIGOS-WIS of relevance to OPAG EPAC

**Summary of Activity**

**EXECUTIVE COUNCIL WORKING GROUP ON THE WMO INTEGRATED GLOBAL OBSERVING SYSTEMS (WIGOS) AND THE WMO INFORMATION SYSTEM (WIS)**

First session held at WMO 4 – 7 DECEMBER 2007

There is a broadly recognized need for a comprehensive, coordinated and sustainable global observing system. Many international agencies have to administer systematically these diverse sets of observations and have developed data policies to meet their needs. WIGOS is the organizational response of WMO to this need and therefore is committed to the very strong cooperation that is needed among all partners to accomplish the broad objectives.

WIGOS will respect the data policies of partner organizations and will adhere to the decisions of the Twelfth and Thirteenth World Meteorological Congress (1995, 1999) that adopted Resolution 40 (Cg-XII) "WMO Policy and Practice for the Exchange of Meteorological and Related data and products including Guidelines on Relationships in Commercial Meteorological Activities", and Resolution 25 (Cg-XIII) "Exchange of Hydrological Data and Products", respectively.

**EXECUTIVE COUNCIL WORKING GROUP ON WIGOS AND WIS, SUB-GROUP ON THE WMO INTEGRATED OBSERVING SYSTEMS (SG-WIGOS)**

Terms of Reference

- 1) To provide overall technical guidance, assistance and support for the implementation of the WIGOS concept based on strategic directive of the Fifteenth WMO Congress;
- 2) To elaborate in detail the three levels of integration of WIGOS including standard practices to be applied at the different levels of WIGOS integration; integration levels being as follows and further described in the WIGOS Concept of Operations:

- Standardization of instruments and methods observations (instruments and methods of observation level);
  - Common information infrastructure, (WIS data level);
  - End-product quality assurance (QM/QA/QC product level).
- 3) To work with each WIGOS component, propose new components and coordinate agreed inter-actions with other partners (e.g. co-sponsored systems, international initiatives' systems, etc.);
  - 4) To refine the concept of WIGOS operations, including its basic definitions;
  - 5) To address major issues identified by the EC Working Group on WIGOS and WIS;
  - 6) To develop a mechanism for the inclusion of the regional aspects of WIGOS through involvement of the Presidents of Regional Associations;
  - 7) To coordinate the WIGOS planning phases (including the Pilot Projects) according to the over-arching WIGOS Development and Implementation Plan;
  - 8) To coordinate WIGOS implementation with the planning and implementation of the WMO Information System (WIS);
  - 9) To advise the EC Working Group on WIGOS and WIS on aspects related to management, governance and interoperability;
  - 10) To report to the EC Working Group on WIGOS and WIS.

Membership:

- A representative from each WIGOS Pilot Projects;
- A representative from each WMO observing system not represented in a Pilot Project;
- A representative from each co-sponsored observing system;
- Chairman, ICG-WIS
- CIMO President will chair the IGC-WIGOS.

The Working Group reviewed the status of the joint GOS-GAW Pilot Project to accelerate implementation of WIGOS/WIS. The status commenced with an overview of the GAW programme by C/ENV followed by the "Status of the joint GOS-GAW Pilot Project to accelerate implementation of WIGOS/WIS". Finally, Prof. Øystein Hov, Chair of CAS/OPAG-EPAC, presented some views on GAW and WIGOS and gave a presentation focusing on data assimilation. The GAW structure and programme can be found in the WMO Global Atmosphere Watch (GAW) Strategic Plan: 2008-2015, GAW Report No. 172 (2007). It was noted that GAW is very different from operational weather service. GAW is a voluntary programme and it operates on many different timeframes. There is a growing need to EC-WG/WIGOS-WIS-1, p. 6 deliver ozone and aerosol products in near real time (NRT). On the other hand, many of the issues that GAW deals with, such as acidification and greenhouse gases, are relevant on a longer time frame. The question of concentrations of the atmospheric chemical constituents is very different from meteorology as emissions are at core, making inverse modelling a useful tool. It was felt that practical benefits of WIGOS need to be clearly stated in general, and in particular so that the institutions contributing to

GAW will feel motivated to contribute to WIGOS. There are needs to be a sense of ownership. In addition, small concrete steps might lead to a better system. It was also noted that several European projects exist that could contribute into WIGOS/WIS, especially GMES, and GEMS within it.

It was further noted that GAW is a combination of operational and research areas and there is a need to support both. One of the participants noted their efforts for years to incorporate their global GAW station into their operational network. It was suggested that a necessary first step would be accomplished on the national level integration of GAW stations to the operational network and only then can NRT data delivery be achieved. It was recognized that making GAW data available to the national community would benefit both GAW and the community. It was also noted that there maybe data policy issues as GAW data can in some cases be a sensitive issue.

Thirdly, it was noted that more attention should be paid to combining satellite and in situ measurements and this could provide in 5-10 years a powerful network for, e.g., air quality.

### **Status of WIGOS Pilot Project 1 -**

#### **Joint GOS-GAW Pilot Project to accelerate implementation of WIGOS/WIS**

##### 1. Background

As part of its WIGOS decision, Cg XV requested several pilot projects: – one for CBS and CAS to undertake a joint pilot project to enhance coordination of GOS and GAW in WIGOS/WIS. The high level WIGOS/WIS goal is to establish a comprehensive, coordinated and sustainable system of observing systems with ensured access to its component observing systems' data and products through interoperable arrangements. WIGOS is the system of observing systems and WIS provides the access through the interoperable arrangements. WIGOS/WIS will address all WMO Programme requirements, ensure availability of required information, meet data quality standards, and facilitate access in real/quasi-real time as well as to archived information. The CBS/CAS Joint Pilot Project will make an important contribution in the development of WIGOS/WIS.

Factors bearing on planning:

- CAS MG meeting held 24-26 Sept 2007, Oslo and planned for Geneva in Sept 2008;
- CBS MG meeting in July 2008;
- EC WIGOS/WIS Working Group Meeting Dec 2007 or January 2008;
- CAS OPAG EPAC Meeting March 2009.

##### 2. Joint GOS-GAW Pilot Project Development

To accelerate implementation of WIGOS/WIS, the GOS-GAW pilot project (including relevant WIS items) mandated by CG-XV should, as a first step, develop a draft project plan through an "ad-hoc CBS & CAS experts group on WIGOS". Follow-on steps envision joint meetings of CAS and CBS management groups (MGs) and appropriate OPAGs to finalize the project plan and implement it as well as reporting to the MGs and the EC WIGOS/WIS Working Group.

3. Proposed Schedule and Actions:

- (i) Early August 2007, D/AREP and D/WWW consulted by email with the CAS and CBS Presidents, OPAG chairs, explaining the proposal and assigning responsibilities for a joint document to be submitted to the CAS MG meeting jointly by AREP and WWW;
- (ii) 24-26 September 2007 at CAS MG Meeting Oslo. CBS MG was represented by President of CBS and AD/WWW. It initiated development of a draft project plan by approving terms of reference of the "ad-hoc CBS & CAS Experts Group on WIGOS" and approved a joint CAS/CBS MG meeting to be held in 2008, possibly July;
- (iii) February 2008 - Geneva 1st Meeting of "ad-hoc CBS & CAS Experts Group on WIGOS". Complete the joint CBS-CAS Project Plan for GAW-GOS for EC WG WIGOS/WIS review and EC-LX guidance (June 2008);
- (iv) July 2008: Joint meeting of CBS & CAS MG (accordance with item ii) Purpose: Incorporate EC LX guidance and decisions into final joint Project Plan;
- (v) Implement the project by November 2010 reporting to CAS and CBS and EC WG on WIGOS/WIS and finally Cg-XVI (May 2011).