

**WORLD METEOROLOGICAL ORGANIZATION**

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EXECUTIVE COUNCIL WORKING GROUP ON

THE WMO INTEGRATED GLOBAL OBSERVING SYSTEM (WIGOS)  
AND  
THE WMO INFORMATION SYSTEM (WIS)

ITEM: 3.4

*FIRST SESSION*

GENEVA, 4– 7 DECEMBER 2007

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**DEVELOPMENT OF AN OVER-ARCHING  
WIGOS DEVELOPMENT AND IMPLEMENTATION PLAN**

***Status of WIGOS/WIS Pilot Project on  
Initiation of a Global Hydrological Network in the context of WIGOS***

*(Submitted by the Secretariat)*

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**Summary and Purpose of Document**

This document provides a background information on the status of proposal for the development of WIGOS/WIS Pilot Project Initiation of Global Hydrological Network addressing a GCOS Requirement

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***ACTION PROPOSED***

The Working Group is invited to note the information presented in the document while elaborating a WIGOS Development and Implementation Plan.

**References:**

1. Cg-XV, PINK 7.4(3), Evolution of NMHSs and WMO, Towards Enhanced Integration between the WMO Observing Systems.
2. Res. 2/4 (EC-LIX) — Executive Council Working Group on the WMO Integrated Global Observing System (WIGOS) and the WMO Information System (WIS).

## DISCUSSION

### Status of WIGOS/WIS Pilot Project on Initiation of Global Hydrological Network addressing a GCOS Requirement

#### Introduction

1. In accordance with the decision taken during the Cg–XV, five pilot projects were identified by the EC Task Team to test the concepts of integration of WMO Observing Systems, identify the problem areas and to help elaborate the WIGOS Development and Implementation Plan. No specific activities to initiate a possible pilot project have been started as the CHy as a body is yet to discuss the same.

2. One of the Pilot Projects identified is “*Initiation of Global Hydrological Network addressing a GCOS Requirement*”. The following paragraphs describe a project proposal that has been developed during the last 6 months, jointly between HWRP and GEO Secretariat which in effect addresses the GCOS requirements and could be considered for a Pilot Project in the Context of WIGOS.

#### The HARON Project

3. The GCOS Implementation Plan for the Global Observing System for Climate in Support of the UNFCCC (2004), by its Action T4, includes calls for a joint initiative with the WMO/HWRP and GRDC for the development of a baseline observing network, the Global Terrestrial Network – Rivers (GTN-R) as a subset of the Global Terrestrial Network for Hydrology (GTN-H).

4. Accordingly, a Hydrological Applications and Run-Off Network (HARON) Project has been developed by the Hydrology and Water Resources Department (WMO-HWRD), jointly with GEO Members and Participating Organizations. Such a proposal may also address the needs of the Global Climate Observing System (GCOS).

5. The main goal of HARON is to improve and support the closure of the global water budget in line with requirements of GCOS and the Global Water Cycle Experiment (GEWEX) and will promote the free and unrestricted international exchange of hydrological data, in consonance with the needs of the global hydrological community.

6. Its objective is to integrate, in a phased approach, dedicated river gauging networks of existing hydrological stations on a global scale into a global runoff observation network. The project will be carried out in a phased approach, gradually linking other global networks related to freshwater observations into the integrated observing system.

7. The project will be in three phases. The first Phase will be dedicated to upgrading and (re-) connecting the 380 major global river discharge stations that are part of the Global Terrestrial Network for river discharge (GTN-R). The proposed duration of this phase will be 15 months and could be considered as the pilot project. (The second phase will link this network with the WHYCOS while the third phase will concentrate on modeling and user specific products). The project will be funded through extra-budgetary resources on the lines of WHYCOS component.

8. It will mainly encompass the technical upgrade of the stations, ensuring their maintenance and operations over the years of the HARON project duration. The project proposal envisages financial support to the developing countries for such an upgrade and in turn will include the commitment of the national organizations operating the station(s) to extend and maintain station operations under prescribed standards, as well as share the data in an agreed format and temporal sampling with the entity hosting the global dataset (e.g. the Global Runoff Data Centre [GRDC]). The data and metadata formats would be compliant with the ISO 19115 standard.

9. In addition, an upgrade of the terrestrial telecommunication infrastructure to ensure near real-time transmission of data, data management, and availability of information for global services is seen as a vital component of Phase 1. This will include the transmission and dissemination of data as required through various means of telecommunication such as the GEO's GEONETCAST and the WMO Information System (WIS).

10. A HARON website will be established during this Phase, jointly with GRDC, to serve as a communication platform for the exchange of global and regional data and information generated by GTN-R stations, using the GTN-H as a coordination platform. The catalogues of HARON would be accessible through the GEO Clearing House.

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