

Innovative Monitoring and Modeling

HydroHub – the Global Hydrometry Support Facility of WMO



Region
Global

Partners
WMO, iMoMo consortium, BGW Management Advisory Group

Background information

Today, data on water remain scarce, fragmented and difficult to access and interpret. This hampers effective decision-support for integrated water resources management (IWRM), translating into water insecurity.

Project objective

Development of a reliable base of hydrological data to foster evidence-based policy- and decision-making, and conflict resolution, in water resources management at global, transboundary, national and local levels.

Beneficiaries

National hydromet services and local water users. Populations through better access to water information and informed decisions in water management.

Costs

CHF 3,370,000, plus contributions from partners

Duration

05.2016-08.2020

Contact

Global Programme Water
water@eda.admin.ch

Reliable hydro-meteorological observations and forecasts are critical to implement better water resources management practices and policies. The project, implemented by the World Meteorological Organization (WMO) and the iMoMo consortium, combines traditional with new and decentralized monitoring approaches such as crowd-sourcing with mobile phones, bringing decision-relevant information faster to the users. It aims to enhance the base of hydro-meteorological data to foster evidence-based policy- and decision-making in water resources management.

Many countries are unable to provide accurate, timely, and coherent information and forecasts that meet user needs. This increases societal vulnerability to natural hazards and inhibits socioeconomic growth, translating into **water insecurity** with measurable adverse impacts on communities, their livelihoods and ecosystems.

Poor data management can contribute to conflicts and inequitable access. The challenge is to provide hydrologic information on a regular, sustainable and transparent basis to meet the growing need to apply such information to development planning across a wide range of economic sectors, to secure life and property, and to foster water cooperation. A **data revolution** is needed to underpin the achievement of the Sustainable Development Goals (SDGs).

Suitable investments to strengthen national capacity to provide hydrological information services should be **driven and guided by the demand of users**. Recent technology advances open up **new perspectives through non-traditional, people-centered approaches**, which are at the core of the Innovative Monitoring and Modelling (iMoMo) initiative, incubated by SDC since 2012, and which has contributed to significant policy advances at national and global level.

The overall goal of the project is **to develop a reliable base of hydrological data to foster evidence-based policy- and decision-making, and conflict resolution, in water resources management at global, transboundary, national and local levels**. The establishment of the WMO HydroHub (Global Hydrometry Support Facility), as well as the outscaling of existing and new iMoMo activities aim to achieve to following objectives:

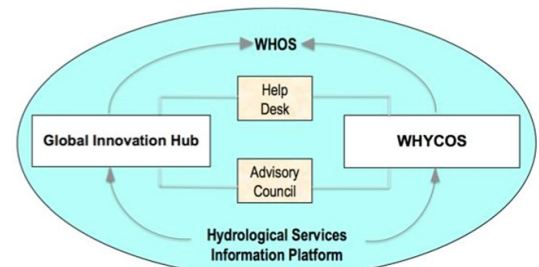
- The HydroHub provides an efficient, innovative and sustainable framework to support operati-

onal systems in hydrometry and water monitoring of national hydromet services, and facilitates free and open data sharing;

- The HydroHub strengthens fit-for-purpose and sustainable monitoring capabilities through innovation in applied monitoring systems for the benefit of local water users and national hydromet services, as well as decision-makers at the national, transboundary and global level;
- Local beneficiaries are engaged in crowd-sensed innovative monitoring and modelling of hydromet data to enhance coverage and availability of hydromet data in six countries at transboundary, national, sub-catchment or local community levels.

To help achieve these objectives, a single operational structure was created, the **WMO HydroHub**, which will bring together the WHYCOS office, the World Hydrological Observing System (WHOS), a Hydrological Services Information Platform, and a Global Innovation Hub.

The WMO HydroHub



The set-up of an Innovation Hub within the HydroHub allows to closely link iMoMo achievements with the Hub objective of using innovative monitoring technologies for improved, fit-for-purpose and sustainable hydromet monitoring. The iMoMo consortium contributes during the set-up of the Hub with backstopping support. The technical know-how and institutional expertise gained through iMoMo inform the innovation calls by the Hub. At the project level, existing and new iMoMo activities are outscaled in Central Asia and Africa. These activities are taken up as case studies by the HydroHub to demonstrate the viability of innovative monitoring concepts globally and inspire approaches to mainstream innovative monitoring and link it with traditional monitoring approaches.

Additional information:
www.wmo.int
www.imomohub.org