

CHy's Activities and Current Operational Capabilities



WMO OMM

World Meteorological Organization
Organisation météorologique mondiale

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President, Commission for Hydrology

CHy's Fifteenth Session

Rome, December 2016

- Established ambitious program of work aligned closely with current WMO strategic priorities
 - Disaster Risk Reduction
 - Global Framework for Climate Services
 - WMO Integrated Global Observing System
 - Capacity Development



CHy-15 Activity Organization

Coordination and Implementation Support

President, vice-president, 1 AWG member

WIS/WIGOS, GFCS, GDPFS, RAs, ETR

Measurement,
Monitoring, and
Infosystems

Hydrological
Applications,
Products and
Services

Activities Supported
by Secretariat

Activities supported by Sec.
with help from OPACHEs

CHy Member Activities

Activities requiring
leadership by Members



Coordination and Implementation Support

- Ensure RA-WGH linkage with CHy Activities
- ID/lead education and training requirements
- Represent CHy at APFM and IDMP sessions
- Represent CHy on ICG-WIGOS and TTs
- Represent CHy on GFCS Task Teams
- Oversee process of linking with GDPFS



Measurement, Monitoring, InfoSystems Activities

- WMO Hydrological Observing System
- Global Hydrometry Support Facility
- Global Data Processing & Forecasting System
- Role of Hydrological Data Centers



Hydrological Applications, Products & Services

- Global Hydrological Status & Outlook System
- Seasonal Hydrological Prediction
- Disaster Risk Reduction
- Implementation Strategy for E2E EWS
- Flood Forecasting Initiative



Activities Supported by the Secretariat

- Associated Programme on Flood Management
- Integrated Drought Management Programme
- Develop state on hydrological normals
- Manual on Sediment Transport Measurements
- Review of CHy regulatory material
- Complete guidelines on environmental flows



Activities Implemented with Member Leadership

- Associated Programme on Flood Management
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Global Hydrological Status and Outlook System (HydroSOS)

Focuses on developing a worldwide operational system, at monthly timescales, that is capable of providing:

- (1) an indication of current global hydrological conditions (including river flow, groundwater level, and soil moisture);
- (2) an appraisal of where this status departs significantly from 'normal'; and
- (3) an assessment of where conditions are likely to get worse over coming weeks and months.



WHOS — HydroHub

HydroSOS

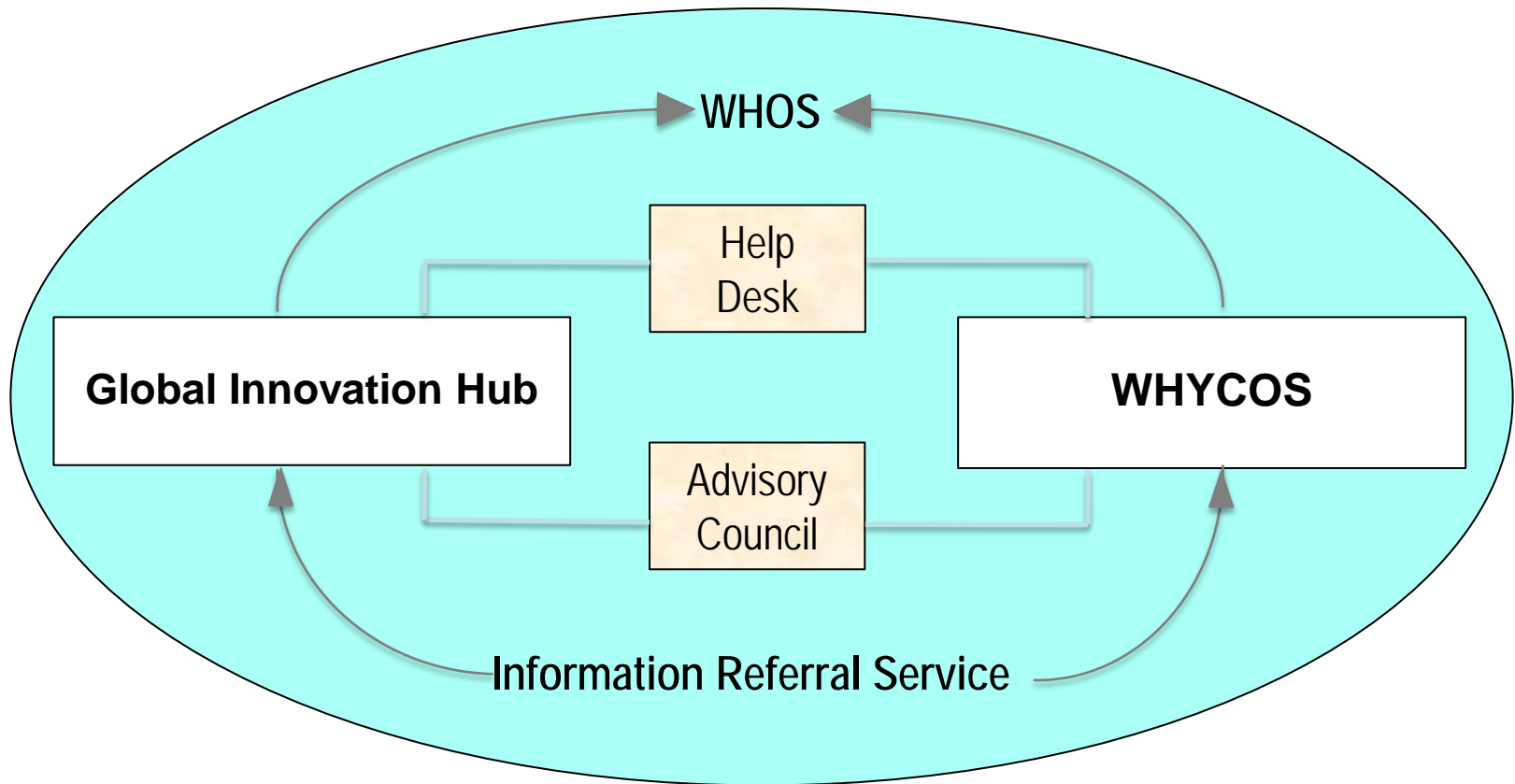
FFI

DRR

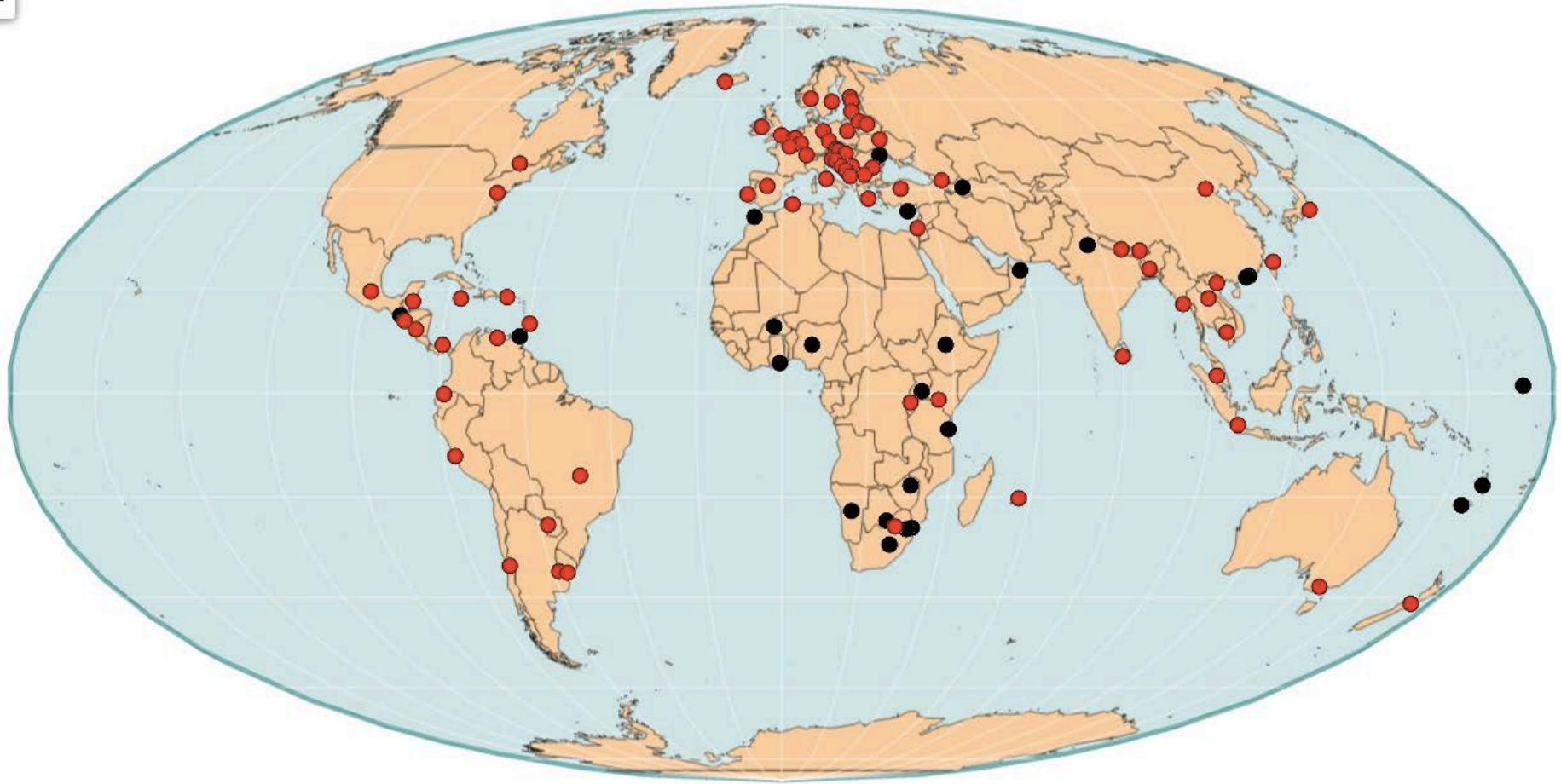
GDPFS



HydroHub



WHOS



Flood Forecasting Initiative - FFI

Completed and ongoing projects

1. Central-American Flash Flood Guidance System
http://www.hrc-lab.org/projects/dsp_projectDetail.php?id=168
2. Flash Flood Guidance System for Haiti and Dominican Republic
http://www.hrc-lab.org/right_nav_widgets/haiti_hurricane/index.php
3. Early Warning System for the City of Medellin (Colombia)
<https://sites.google.com/a/prohimet.org/proyecto-piloto-prohimet-colombia/>
4. Early Warning System for the City of Durazno, Yi River (Uruguay)
<https://sites.google.com/a/prohimet.org/proyecto-prohimet-yi/>
5. Flood Forecasting and Warning Sarapiquí River (Costa Rica)
http://www.wmo.int/pages/prog/drr/projects/CostaRica/CostaRica_en.html
6. Flood Forecasting and Early Warning Zambezi River (Southern Africa)
<http://www.wmo.int/pages/prog/hwrf/FloodForecastingZambezi.php>



Disaster Risk Reduction Roadmap

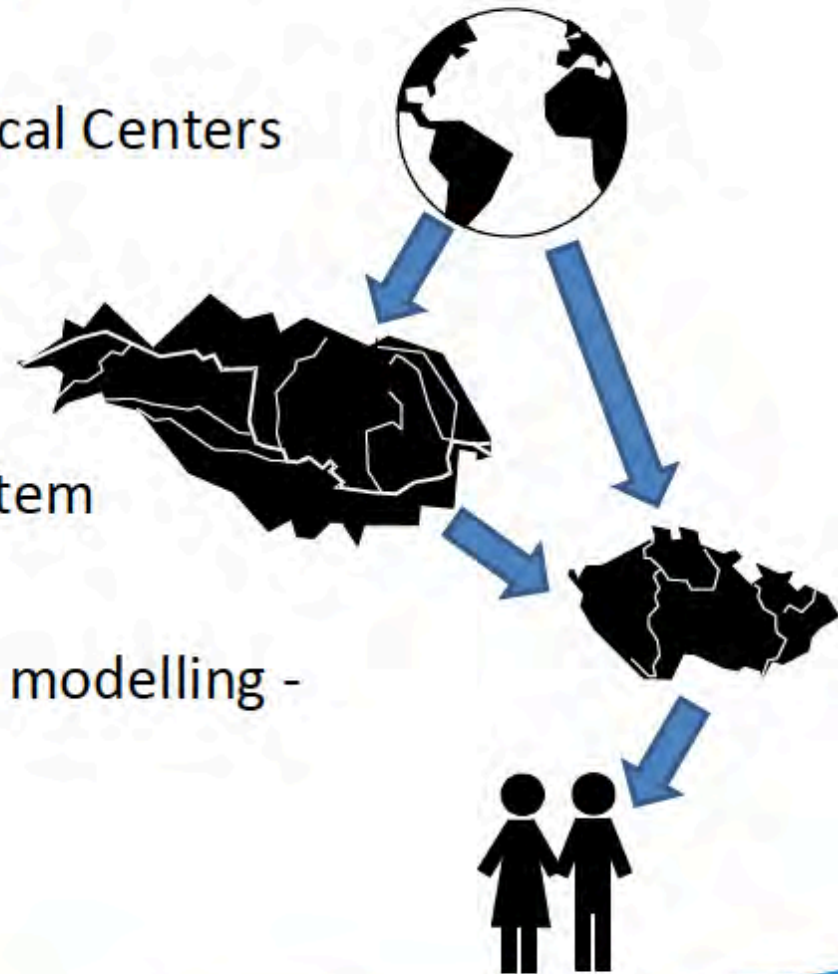
The vision of the WMO DRR Roadmap is that WMO and the NMHSs of its Members are recognised as an authoritative and effective support mechanism within the national, regional and global DRR arenas with regard to weather-, water- and climate-related hazards. Such a NMHS – supported by WMO’s structures as a whole – is able to:

- Co-design, co-produce, and co-deliver together with other NMHSs and partners user-driven services that support DRM measures in multiple sectors and at various spatial and temporal scales;
- Fully link vulnerability and exposure data to standardized hazard information in data processing, production, and service delivery in order to contribute to and use impact-based forecasts and risk-informed warnings of multiple hazards within the framework of MHEWS;
- Advance and apply science (natural and social) and technology to support the development and delivery of such products and services for DRR; and,
- Sustain its core operations, also after having been affected by disasters themselves.



WMO - Global data processing and forecasting system

- World Meteorological Centres
 - Regional Specialized Meteorological Centers
 - National Meteorological Centers
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- Transformation to a seamless system
 - Over time scales
 - Over disciplines (Earth system modelling - inclusion of hydrology)



GDPFS - hydrology

HYDROLOGICAL ANALYSIS AND FORECASTING CENTRES

- Operate a system, providing in near real-time hydrological data, analysis and forecasts.
- Provide access to this service to NHCs whose operational forecasting and warning services may benefit from it;
- Respect the primary roles and responsibilities of NMHSs in the delivery of flood forecasting and warning services in designing its products and accessing them to other users than relevant NHCs;
- Make verification statistics available;
- Make available up-to-date information on the characteristics of its production system.

