Global Terrestrial Network HYDROLOGY (GTN-H)

GTN-H in WMO and GEO

Goals of GTN-H

- Aims at creating a global hydrological network of networks
- Plans and implements projects that facilitate access to hydrological networks and observation data, and generates derived products
- Forms an essential component for integrated global and regional hydrological products

Main Objectives

- Make available data from existing global hydrological observation networks and enhance their value through integration
- Generation of datasets suitable for:
  - Research in the areas of global and regional climate change
  - Environmental monitoring, and
  - Hydrology and water resource management

Global Terrestrial Network – Hydrology

International Context

Joint effort of the:

- World Meteorological Organization/Climate and Water Department (WMO/CLW)
- Global Climate Observing System (GCOS)
- Global Terrestrial Observing System (GTOS)

Global Terrestrial Network – Hydrology

GTN – H in WMO

- From Climate & Water Department:

Support through activities of GRDC, GPCC, HYDROLARE operating under auspices of WMO and affiliation with IGRAC

Fostering inter-operability with the

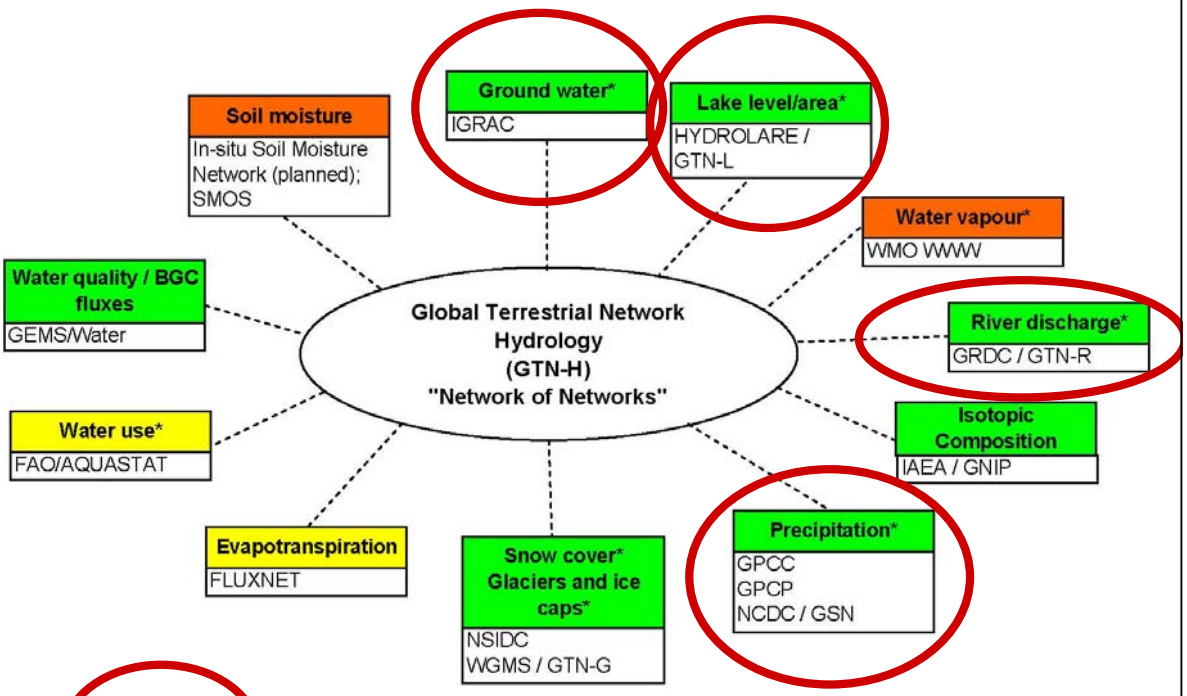
WMO – Information System (WIS) and the

WMO – Integrated Global Observing System (WIGOS)

WIS and WIGOS are Strategic Programs of WMO

Global Terrestrial Network – Hydrology

GTN-H Present Configuration



Centres affiliated with WMO

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WIGOS Framework

- ***Effective and sustained*** organizational, programmatic, governance and procedural structures will enable:
  - a common standardization approach,
  - uniform implementation of WMO regulations,
  - interoperability across all WMO observing systems,
  - data compatibility.

- It will also provide:
  - Single focus for ***integrated and coordinated operational management*** of all WMO observing systems, and
  - ***Mechanism for coordination*** with WMO co-sponsored and contributing observing systems.

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WIS Implementation

Integrated approach for all WMO Programmes

- **Routine collection and dissemination of time-critical and operation-critical data and products:**
  - o Real-time "push" through dedicated telecommunication
- **Data Discovery, Access and Retrieval service:**
  - o "Pull" through the Internet (HTTP, FTP,…)
- **Timely delivery of data and products:**
  - o Delayed mode "push" through dedicated telecommunication means and public data networks, especially the Internet
- **Unified procedures**
  - o More efficient data exchange
- **Coordinated and standardized metadata**
  - o Interoperability between programmes
  - o Improved data management
  - o ISO 191xxx series for geographic information

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GTN – H in WMO

- From Global Climate Observing System ((GCOS)

Strong support for GTN–H in

- GCOS Implementation Plan;
- Terrestrial Observation Panel for Climate (TOPC);
- Documentation for Conference of Parties (COP)

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GTN–H in GEO

- Main link to GEO is through the Integrated Water Cycle Observations – Community of Practice (IGWCO – CoP)
- IGWCO largely contributes to the Societal Benefit Area – WATER of GEO
- IGWCO is supported by WMO through activities of its Hydrology and Water Resources Programme

- *GTN – H is seen as the Observations Component of IGWCO*

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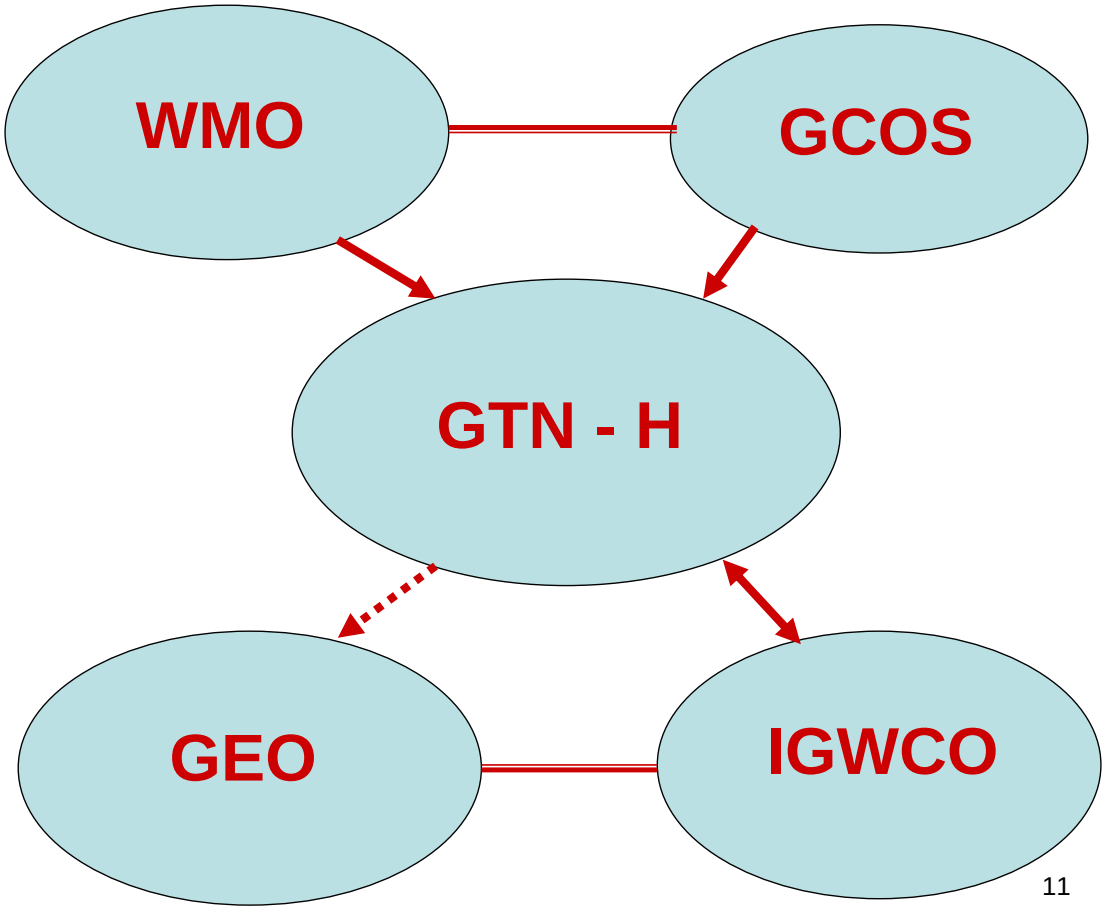

Thank You