

IGWCO COP Overview and Meeting Expectations

Rick Lawford
10th Annual IWCO Meeting

May 29, 2014
Tokyo, Japan

Functions of the IGWCO COP

1. Assists in the coordination of the GEO Water Task
2. Serves as an incubator for new ideas.
3. Contributes to the assessment of the progress of the GEO Water Task.
4. Coordinates the implementation of the GOESS Water Strategy Implementation Plan.
5. Develops the User interaction component for GEO Water.
6. Serves as a venue for exchanging information of relevant water activities.

Who can join? Anyone with an interest in water

Objectives of the 10th IGWCO COP meeting:

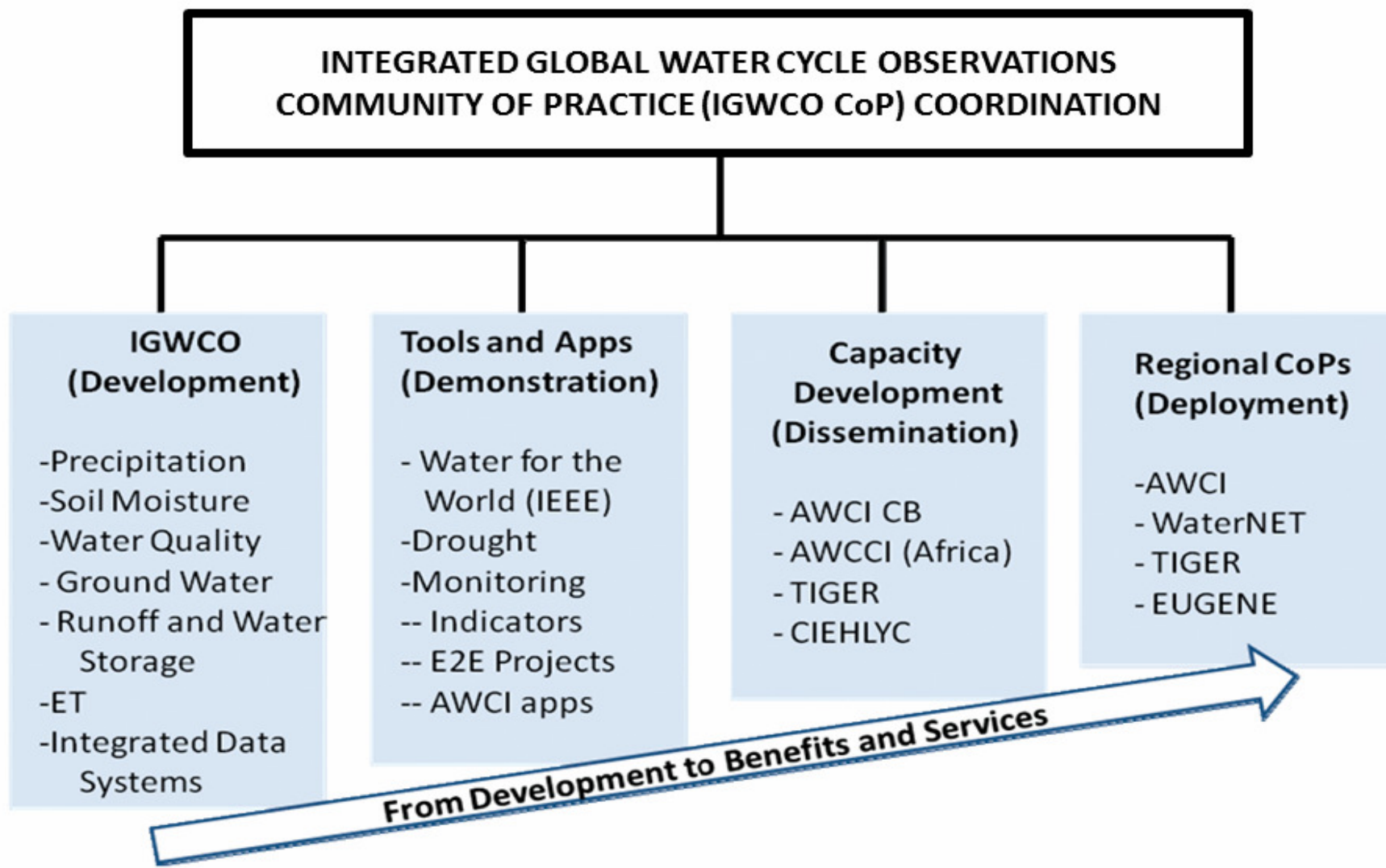
This meeting is intended to:

Develop and document ideas for the GEOSS Water Strategy implementation plan. (Section F)

Generate ideas and strategies to more strongly engage other SBAs. (Section H)

Produce ideas and commitments to strengthen IGWCO contributions to GEO in the areas of integrated data sets, information systems, capacity development and user engagement. (Section B)

The priority for 2014: Begin to build a user engagement element



The GEO Water Task

Target: By 2015, produce comprehensive sets of data and information products to support decision-making for efficient management of the world's water resources, based on coordinated, sustained observations of the water cycle on multiple scales.

Subtasks in the 2012-2015 GEO Work Plan (WA-01)

**1 Integrated Water-cycle Information Products and Services
(Precipitation, soil moisture, evapotranspiration, runoff and terrestrial water store)**

**2 Information Systems for Hydrometeorological Extremes
(GDEWS, Drought Impacts, Floods)**

3 Cold Region Information Services

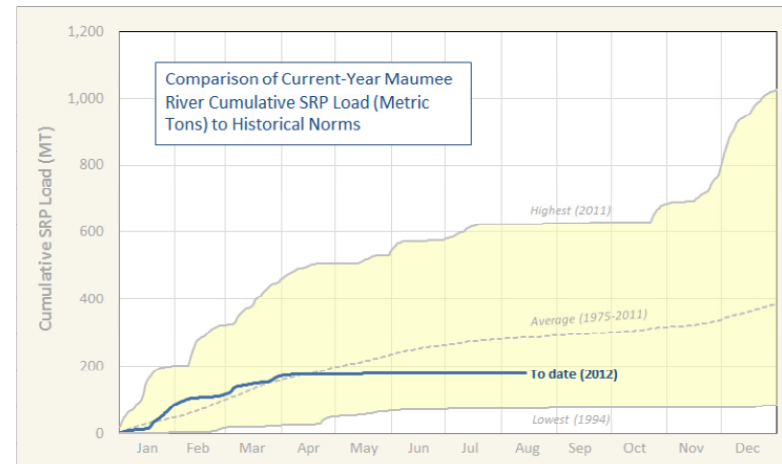
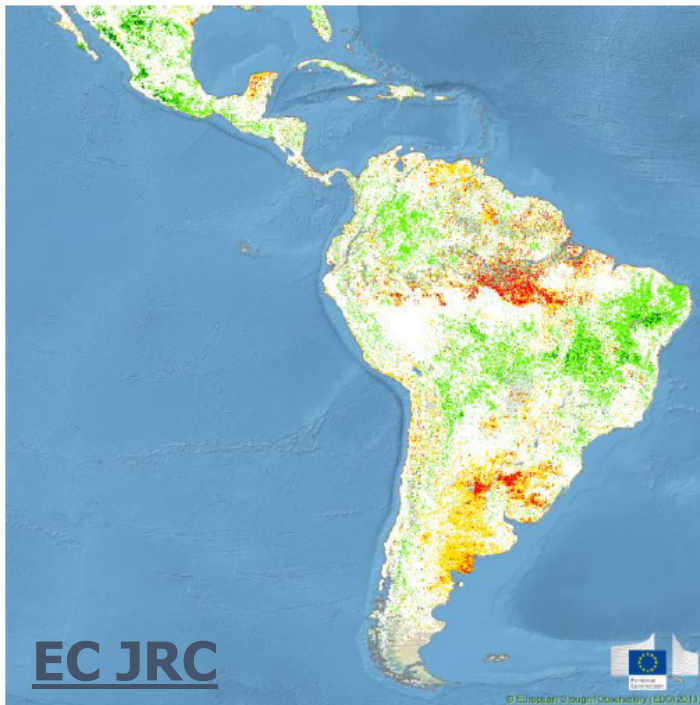
**4 Global Water Quality Information Products and Services
(Remote Sensing, Sediments, UNEP GEMS)**

5 Data System Development, Implementation and Capacity Building (CIEHLYC, AWCI, AfWCCI, IEEE Pilots)

ACHIEVEMENTS IN 2013-2014

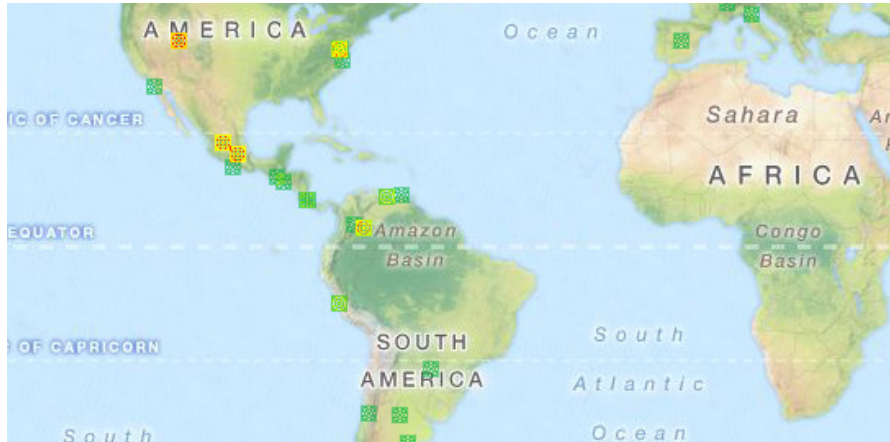
1. Completion of the GEOSS Water Strategy Report
2. AWCI/ AfWCCI Symposium initiated more collaboration in the AWCI/AfWCCI WCI development
3. The NASA/JAXA GPM satellite was launched and is producing very promising early products
4. The US GEO Water program and a US Water Strategy is now under development
5. A series of Spanish webinars for capacity building has been launched by people in South and Central America.
6. IGWCO and GEO Water received exposure at the GEO Summit through videos, posters, and side events.
7. In addition to advances on particular components and sub-tasks, meaningful advances have occurred in several inter-SBA activities.

The GEO Great Lakes project has been adopted as an operational service in the Great Lakes area.



2012's below-average cumulative daily load signaled below-average late-summer HABs activity.

Special drought analysis techniques developed to show the effects of 2009 drought on vegetation water Stress (derived from satellite observed PAR anomalies)



CIEHLYC's Spanish Webinars are engaging new LAC communities

Initiated activities to build a river sediment data base



Silt entering Lake Victoria from The Kagera River

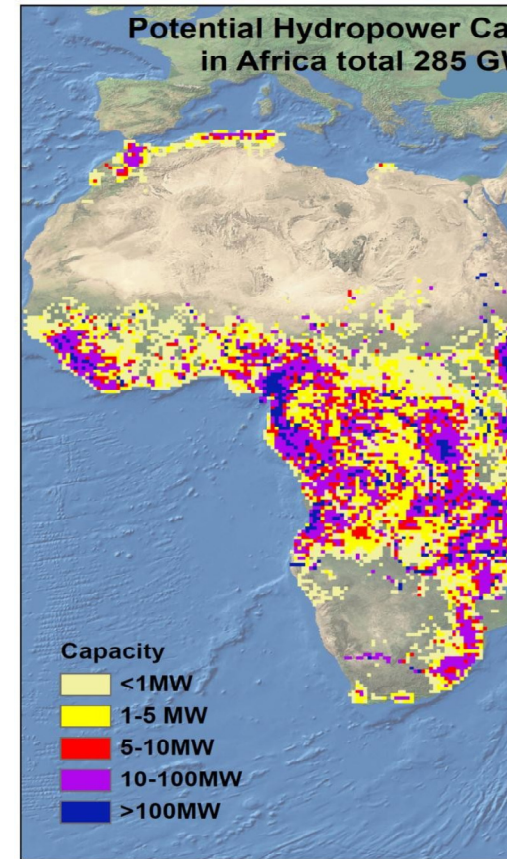
Completion of the GEOSS Water Strategy Report Executive Summary circulated at the 2014 GEOSS Summit

Cross-Task Activities

- Hydropower production potential for the Renewable Energy Atlas

(Africa:
Potential: 285 GW
Installed: 25 GW
Planned: 60 GW)

- Use of water data products in wetlands mapping
- Exploration of water contribution to a joint HE/WA project on Water Quality and Water-borne disease.

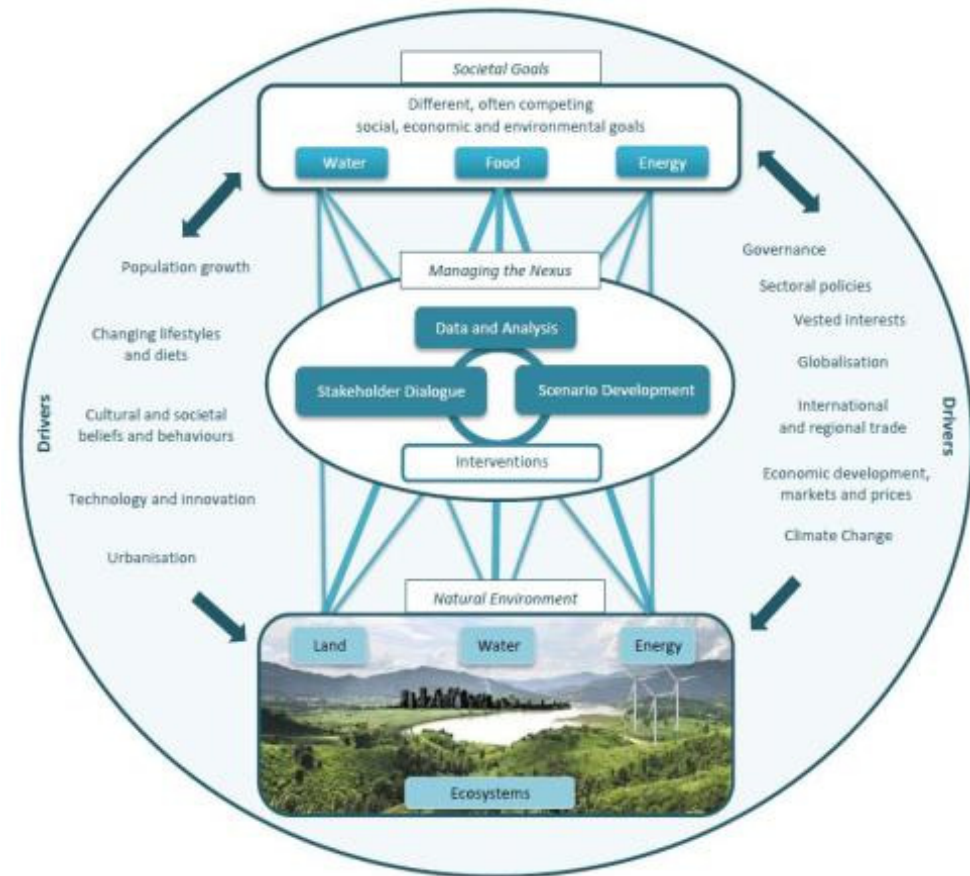


Cross Task Activities (WEF)

Launching a joint initiative with GWSP, FAO and others related to the role of Earth Observations in the Water-Energy-Food Nexus.

Workshop held at FAO in March 2014.

Proposal submitted to Future Earth in April 2014.



Food production and services account for 70% of consumed water and 1/3rd of the world's energy use

CHALLENGES OF the 2014-2015 PERIOD

- . Development of the Implementation Plan for the GEOSS Water Strategy
- . Maintaining support for the soil moisture data archive, coordination of drought activities, and other underfunded activities.
- . Addressing the need to deal with “non-active” elements of the GEO Water Task
- . Need to develop the Earth Observation and WEF activity (through the development of a WEF testbed proposal?)
- . Opportunity to contribute to the development of a monitoring system in support of the UN proposed Water SDG.
- . Provision of advice on ways to reformulate water activities in the new GEO work plan.

New Issues arising from the GEOSS Work Plan Symposium

1. Development of a community portal (based on a template being developed by GEO)
2. Preparation of a user profile for people who are using the products from GEO
3. Development of a funding profile for the EO Water activities (ID-05)
4. Provide comments to IPWG related to the role of the COP in the post 2015 GEO program.
5. Provide inputs to the assessment of the Water Task for the SBIB assessment.
6. Identify leads and actions needed to address the specific IGWCO-related recommendations in the GEOSS Water Strategy.
7. Provide inputs on the EO and WEF Nexus activities and the emerging Sustainable Water Futures Programme of Future Earth.

The assessment procedure addresses the GEO Water Target:

By 2015, produce comprehensive sets of data and information products to support decision-making for efficient management of the world's water resources, based on coordinated, sustained observations of the water cycle on multiple scales.

Demonstrated by:

An operationalized and sustained global network of in-situ observation

s

Increased availability of information products and services for monitoring changes in the water cycle

Increased availability of data and information, including quantity and quality of both surface and groundwater, to support a water cycle decision making system.

Routine, reliable production of "watershed" and human health indicators from satellite data.

Possible Approaches for Grouping – Focus on the Use of the Data

Taxonomy of a GEOSS User

User Family <i>(EO Skill / Capacity level)</i>	User Class <i>(Data sophistication level)</i>	User Order <i>(Spatial resolution level)</i>	User Group <i>(Urgency level)</i>	User Series <i>(Temporal level)</i>
Academic /Research	Raw Data	High Resolution	Real time	Frequent
Application / Practitioner / Advisor	Elementary value addition	Medium Resolution	Near Real Time	Regular
Snr decisionmaker / Politician	Product	Course Resolution	Delayed	Occasional
General Public	DSS	Point / in situ		Once off

*Not to be read across, but rather start anywhere and go anywhere.
Highlights the assumption that use does not imply expertise, and vice
Versa.*

Possible Approaches for Grouping – Broad Job Description Mapped to Broad Role

Highlights the assumption that processing levels increase with degree of removal from the raw observations

THE SPECTRUM OF USERS

From observations

Earth observations & earth system models

Data-to-Information archiving & services

Decision support tool development

Decision making

Assessment of benefits



Earth system scientists and modelers

Earth system service providers

Environmental process modelers & researchers

Policy Makers & Environmental managers

Public officials, advocacy groups and the Public

To societal benefits



RESEARCH & DEVELOPMENT

Building a scientific foundation for sound environmental decisions

SUMMARY

This meeting is occurring at a time of unique opportunity and impending change. It is a opportunity for you to have input into the changes within GEO and projects that GEO Water is likely to become involved in. Please take advantage of the opportunity and give us your ideas and suggestions.