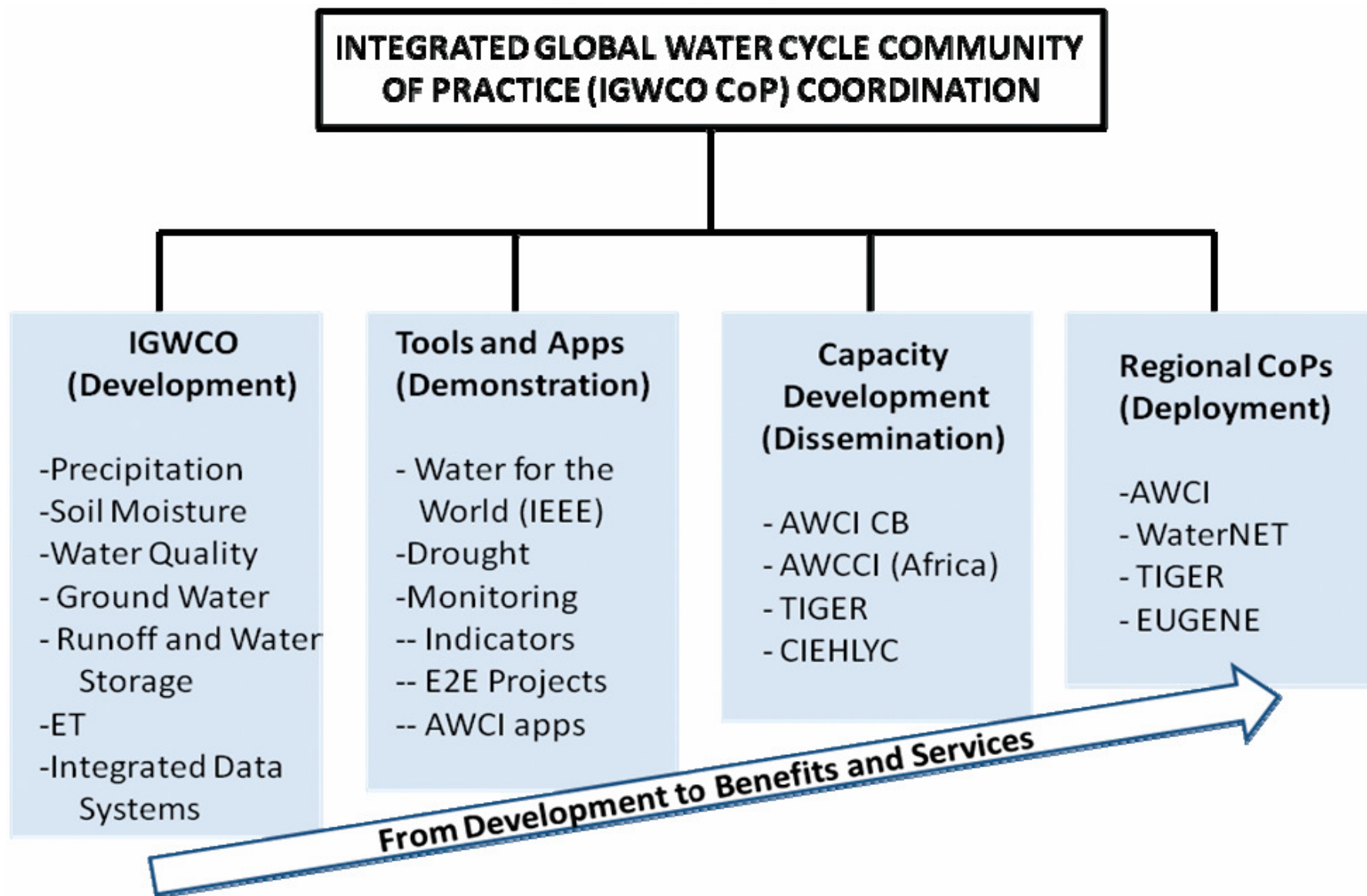


Introduction to IGWCO COP and the GEOSS Water Strategy

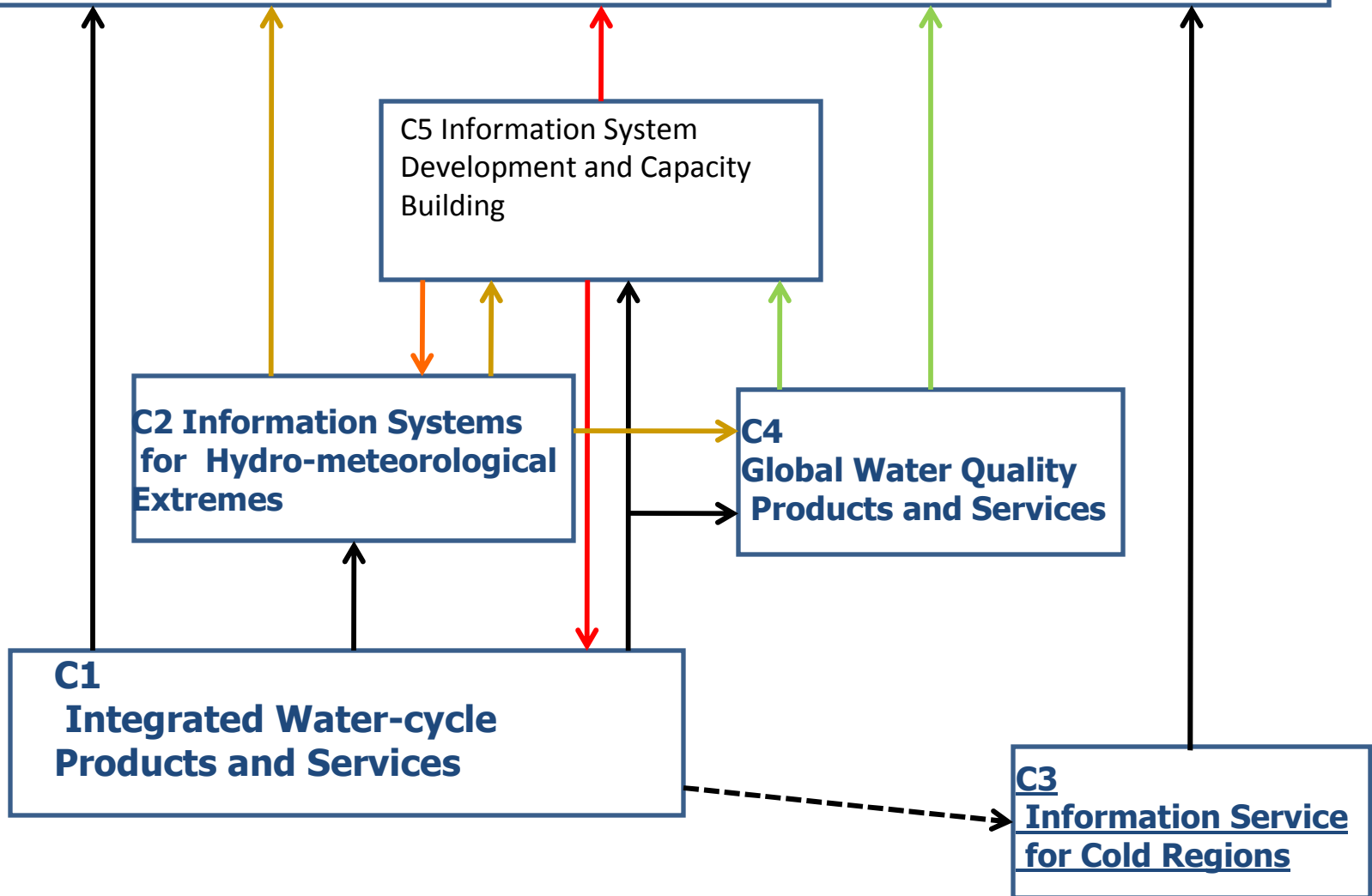
Rick Lawford

Asia Africa Water Cycle Symposium
Tokyo, Japan
November 24, 2013

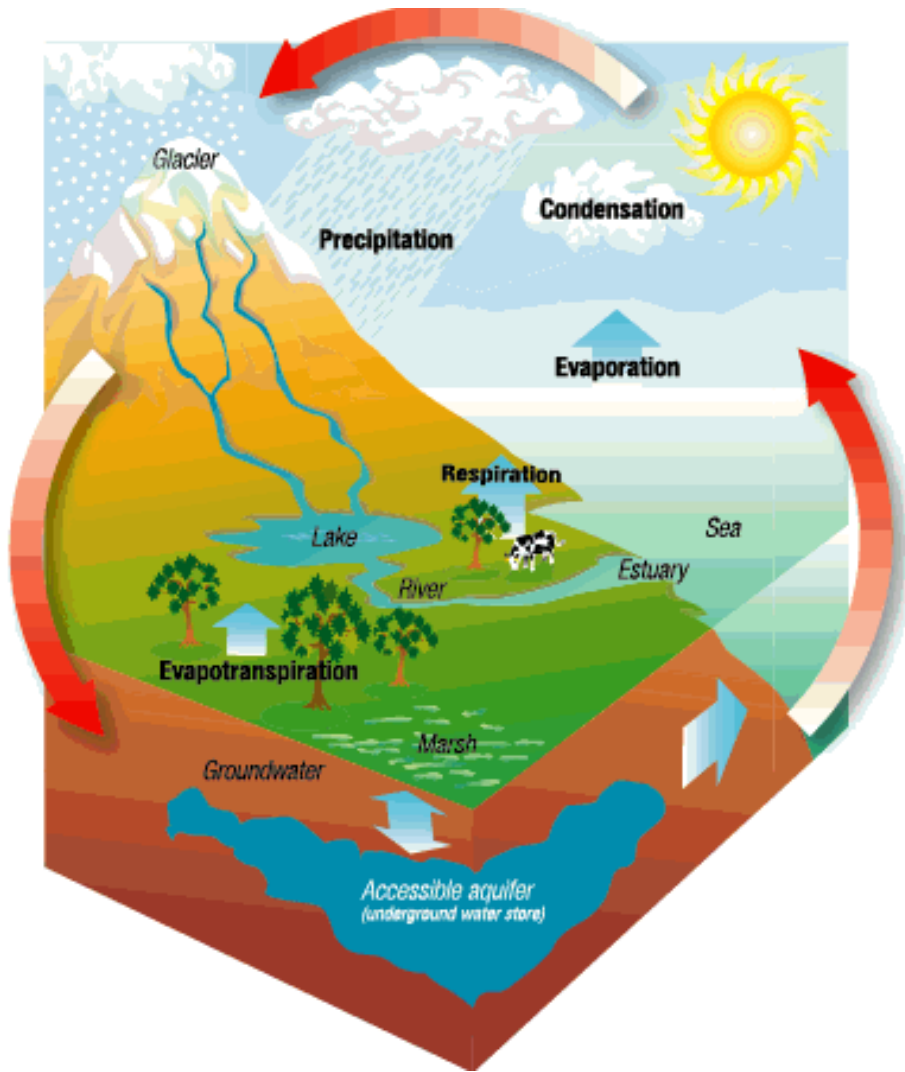
In 2014, IGWCO will place more emphasis on user engagement



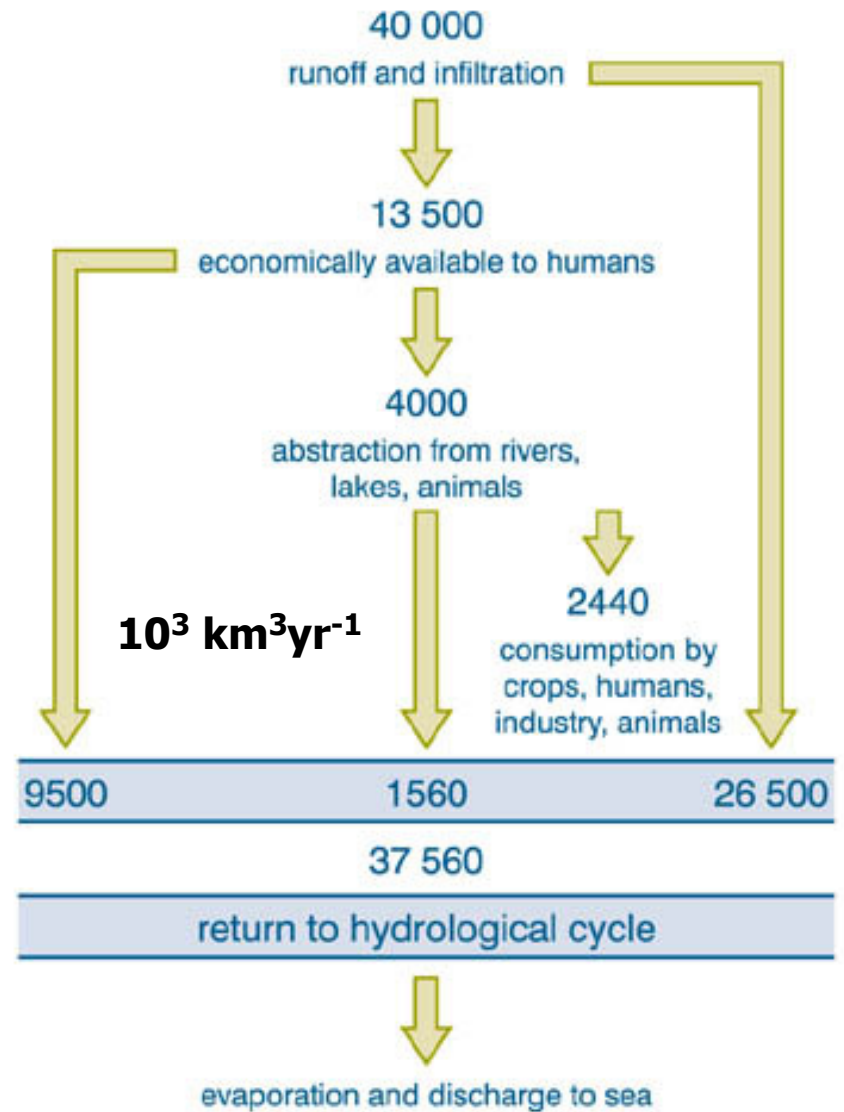
By 2015, produce comprehensive sets of data and information products to support decision-making for efficient management of the world's water resources, based on coordinated, sustained observations of the water cycle on multiple scales.



Data requirements depend on water data use

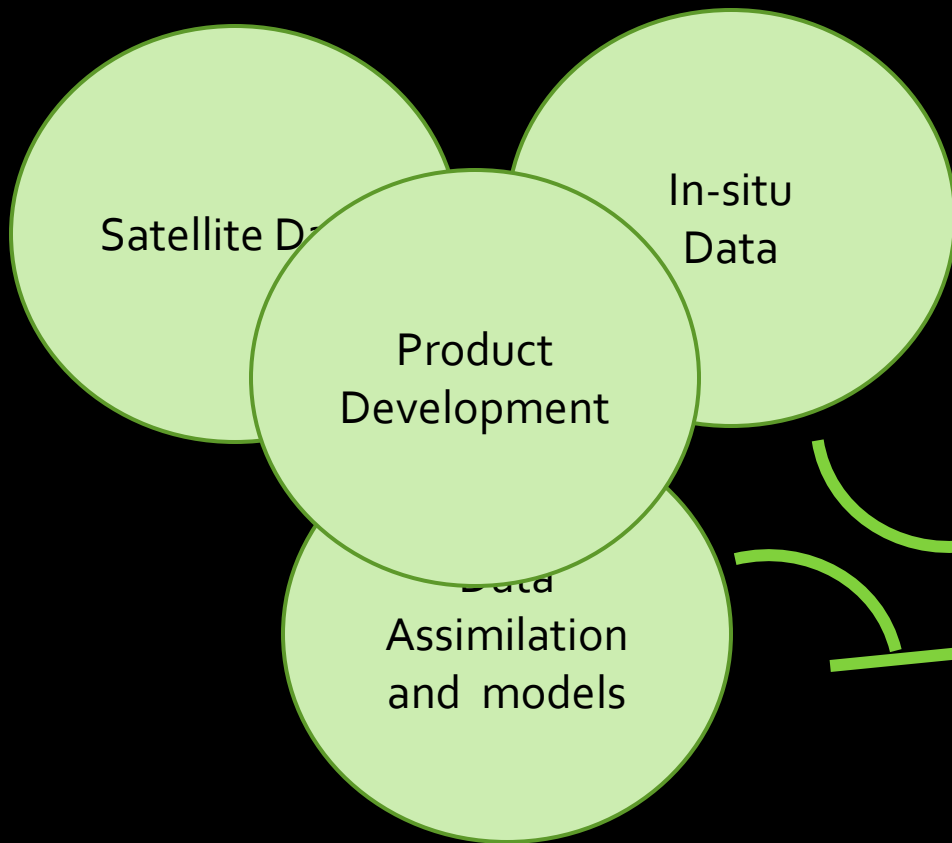


As an element of the natural system



(courtesy of Massimo Menenti)

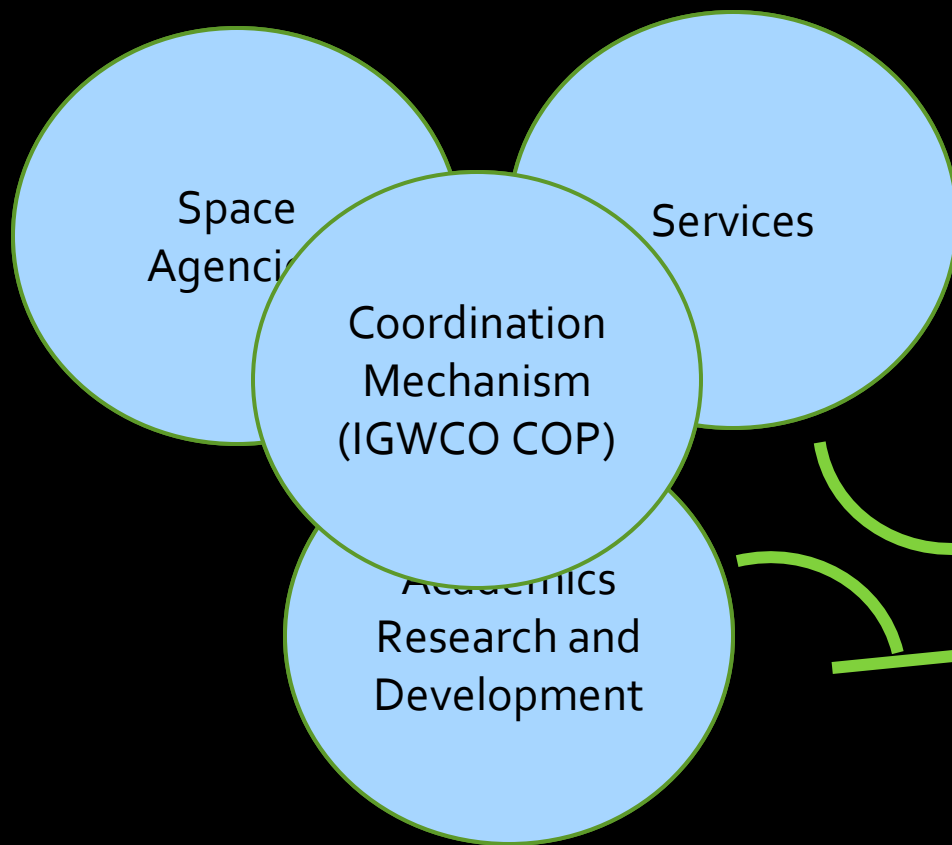
As a contribution to economic productivity



Information Systems

Enhancing capacity in developing countries

Users: Deriving Benefits from improved products



Expand the IGWCO COP coordination activities and the scope of GEO Water .

We need to develop partners and coordination nodes in the user community

Enhancing capacity in developing countries

Users: Deriving Benefits from improved products

Priorities for GEO in the Post-2015 era

1: Address urgent global challenges



2. Support for Sustainable Development

Rio+20" Outcome Document recognized a specific role to be played by GEOSS in sustainable development

3. Build on Accomplishments of GEO



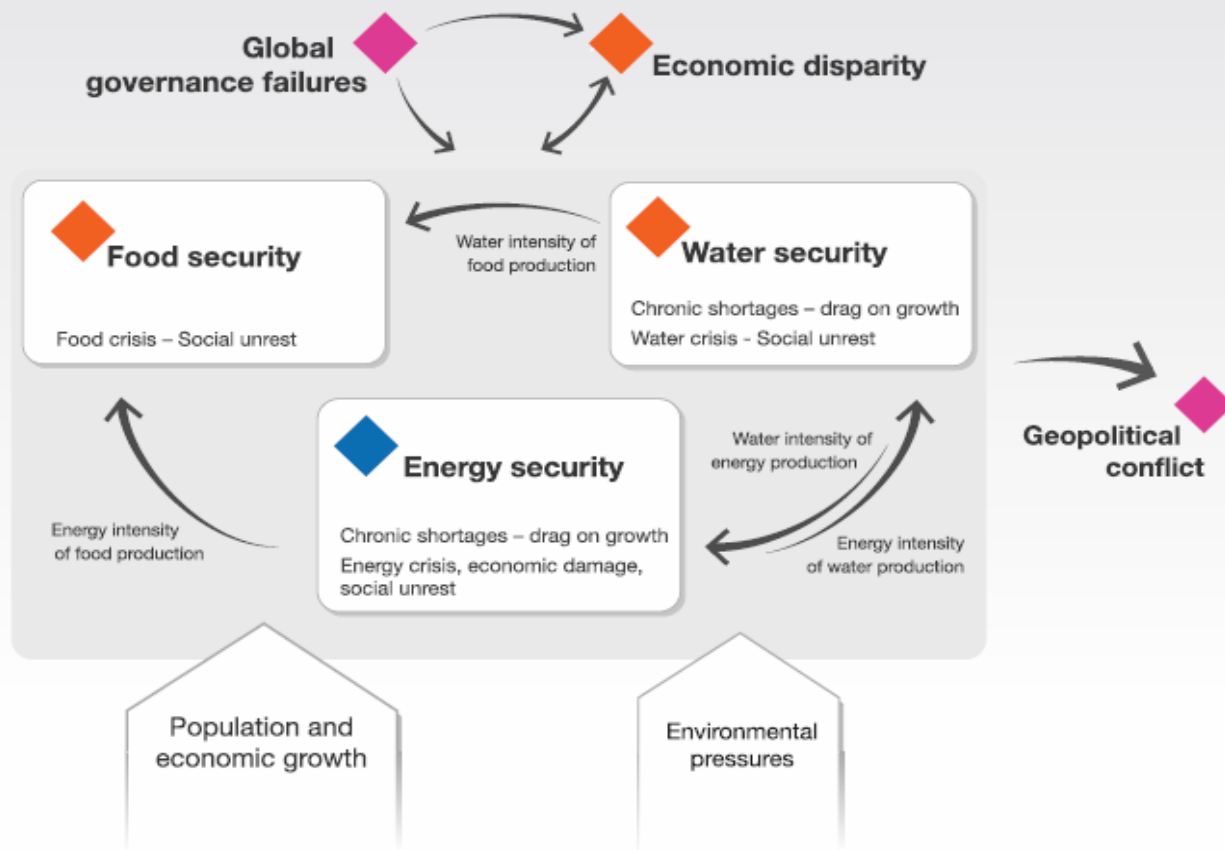
Purpose of the GEOSS Water Strategy Report

- **To update and synthesize the available information about the status of water observations and information systems since the IGWCO report of 2004.**
- **To describe a strategy for water cycle observations and information that will enable the short-term GEO objectives and the long-term community goals to be achieved.**
- **To provide CEOS, GEO, WMO and other agencies with guidance about strategies for water cycle observations, information systems, interoperability, capacity building, etc.**
- **To propose major initiatives that will advance this overall concept.**

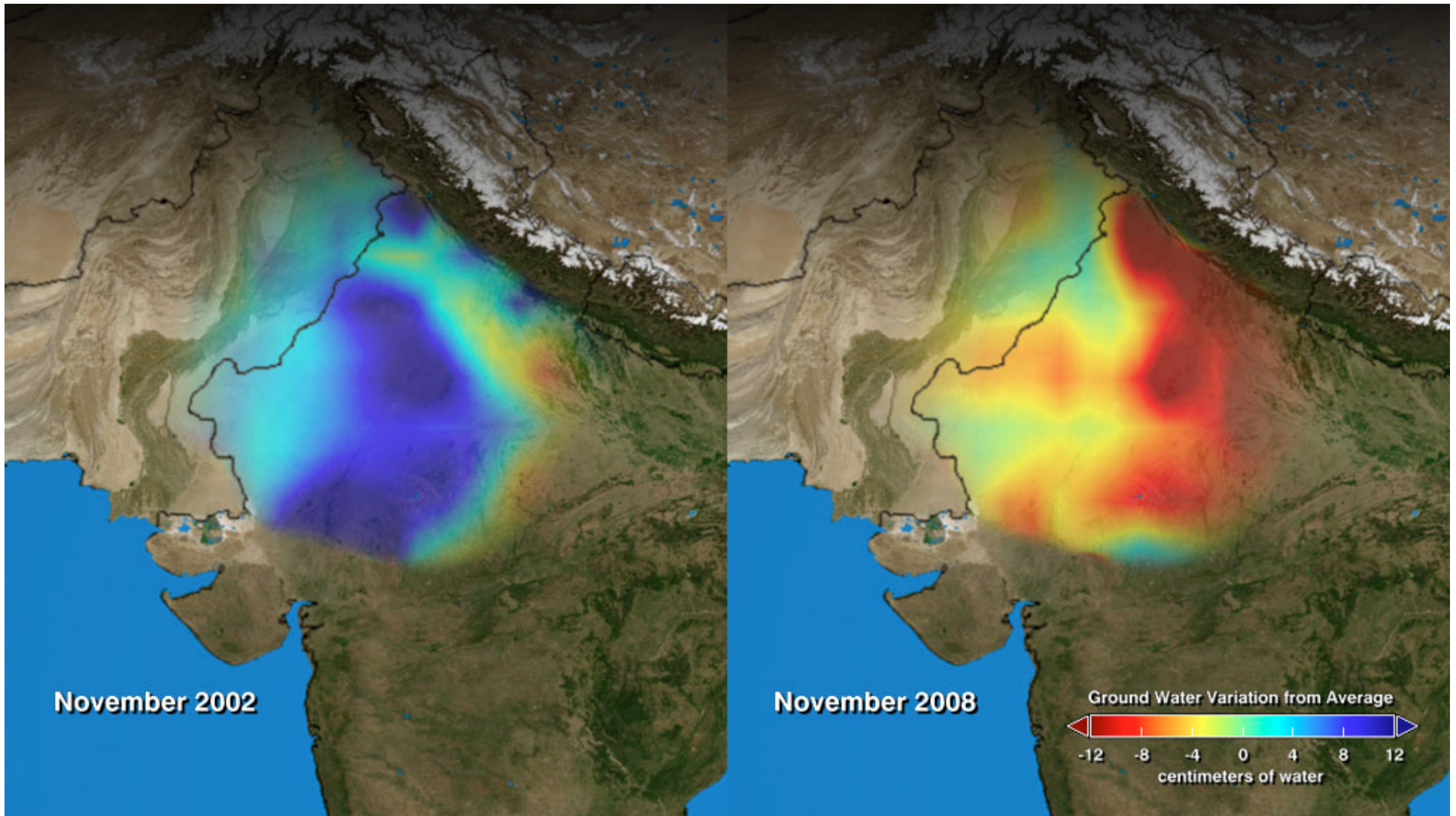
Opportunity Areas for Water

1. Addressing water security and sustainable development
2. Addressing the Water-Energy-Food nexus issues.

Figure 8 System diagram for risks associated with the water-food-energy nexus



Example of monitoring that identified the implications of certain WEF policies



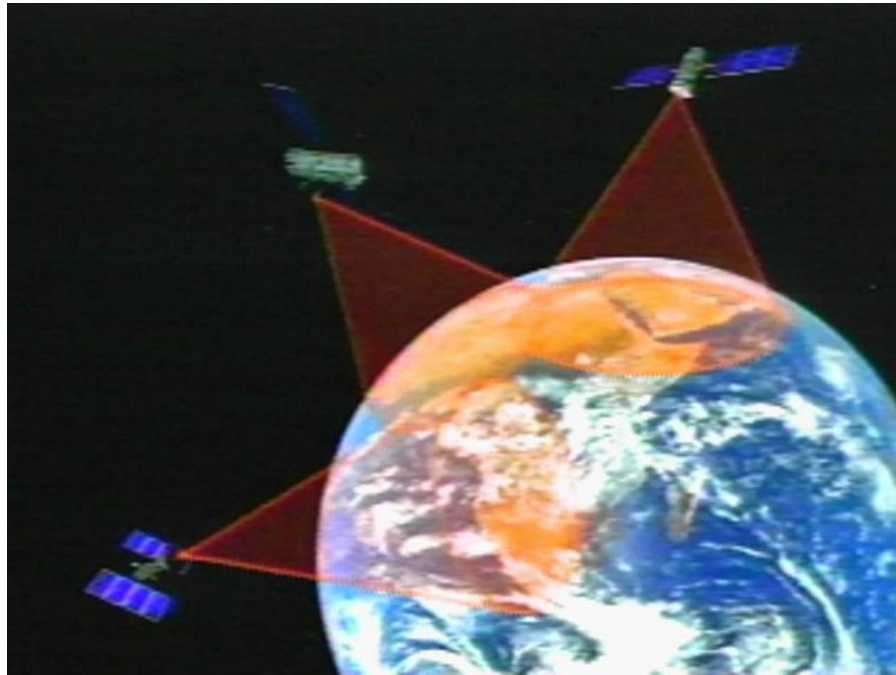
Contents of the GEOSS Water Strategy Report

- 1. Introduction**
- 2. Background**
- 3. User Needs for Water Data and User Engagement**
- 4. Overview of observational systems**
- 5. Existing and Planned Observational Systems for Priority Water Cycle Variables**
- 6. Existing and Planned Observational Systems for Priority Water Quality Variables**
- 7. Quality, Management, and Integration of Water Cycle Data:**
- 8. Water Cycle Integration**
- 9. Capacity Building and Regional Perspectives of water cycle information applications**
- 10. Linkages**
- 11. Institutional and Funding Issues**
- 12. Towards an Implementation Plan**

Integration (from Paul Houser)

Today:

Large space-based Observatories

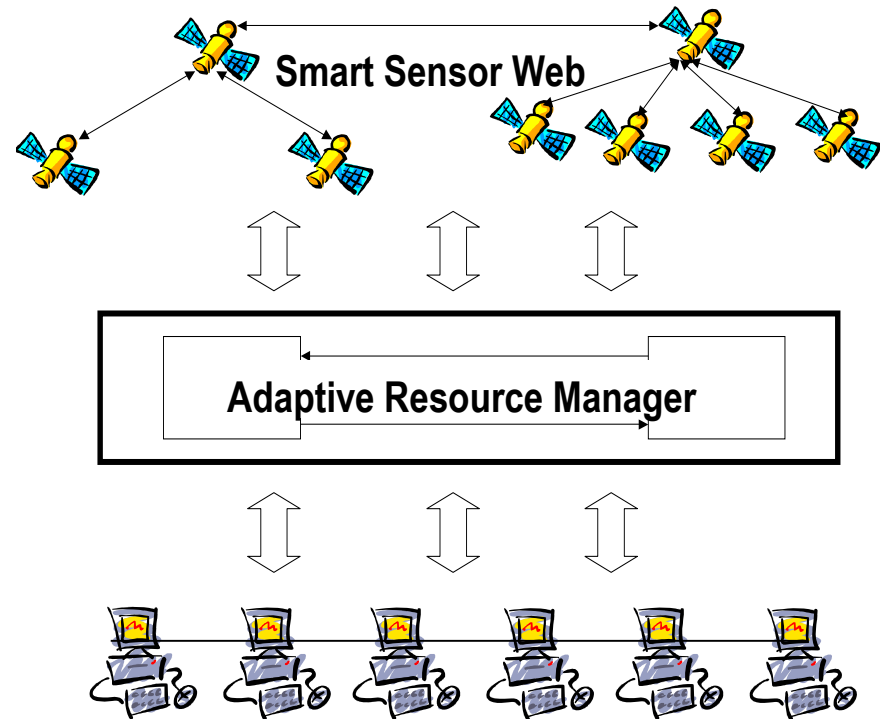


Single sensor retrievals
Spatial/temporal inconsistency
Parameter-driven requirements

**Is this the time to advocate and plan a
Water Cycle Constellation?**

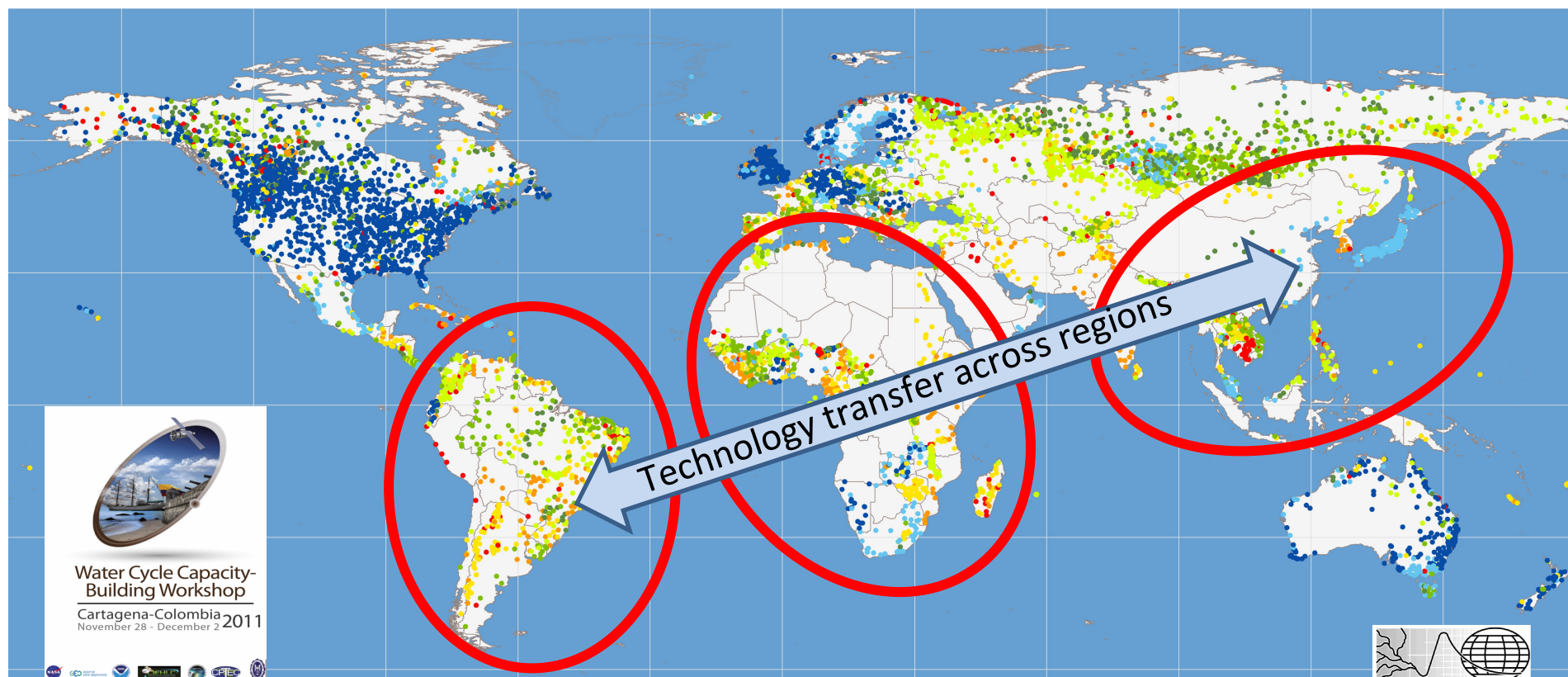
Tomorrow:

Integrated environmental information system



- Coordination for distributed monitoring, processing, and decision making
- Easy deployment of technology and scalability
- Multiple sensor retrievals
- Spatial/temporal consistency
- Integrated cross-sensor calibration
- System-driven requirements
- Reconfigurable ground and space information systems

The GEOSS Water Strategy will focus its **capacity building** efforts in three main areas but add others as interest increases.



The GEOSS Water Strategy will increase synergistic projects and sharing of expertise, data and information systems across these regions.