

The 1st Asian Water Cycle Symposium

*The University of Tokyo, Tokyo
Japan, 2-4 November 2005*



GEO Secretary
UNESCO
UNEP
WMO
IGOS
Mekong Committee

Bangladesh
China
Indonesia
India
Japan
Korea
Laos

Malaysia
Mongolia
Pakistan
Philippine
Sri Lanka
Thailand
Vietnam

The Asian Water Cycle Initiative (AWCI) International Task Team (ITT) Working Session

September 2006

Bangladesh 3
Cambodia 1
Indonesia 1
Japan 2

Lao PDR 1
Myanmar 1
Nepal 1
Pakistan 1

Philippines 1
Sri Lanka 2
Uzbekistan 1
Vietnam 2

Rama Gardens Hotel, Bangkok, Thailand
September 26, 2006

International Workshop on Capacity Building in Asia "Earth Observations in the service of Water Management"

September 26-28, 2006, Bangkok

Co-hosted by GEO, IGWCO, JAXA, Univ. of Tokyo, AIT, UNU, WMO, WCRP, UNESCAP, ICHARM



The 2nd Asian Water Cycle Symposium

The University of Tokyo, Tokyo

November 9-10, 2007



29 Countries and 176 participant

Parallel Session(2)

Resolving the climate change and water cycle



Integration of Earth Observation Data for IWRM under GEOSS

1. Objectives

- To develop an information system of systems for promoting the implementation of integrated water resources management (IWRM).
- To make a bridge between global data and local information for sound decision making.
- To shift from research activities and achievements to operational use for contributing to societal benefits.

Integration of Earth Observation Data for IWRM under GEOSS

2. Targeted River Basin Criteria

- 1) Importance of the basin from the point of view of the socio-economic benefit area and hydrological sciences
- 2) Minimum requirement of data availability:
 - Data type: rainfall, streamflow, weather station data (air temp., wind speed, pressure, humidity)
 - Spatial density of observation stations: according to the WMO standard but local specifics to be considered;
 - Watershed characteristics information
- 3) Highly expected data:
 - Upper air observation is highly recommended
 - Near-real time data availability is highly recommended;
 - Ground water and water quality data availability for the river basins where those problems should be addressed.
- 4) Size of the watershed: 100 km² - 1,000,000 km²

Integration of Earth Observation Data for IWRM under GEOSS

3. Data Interoperability

- Meta-data design
- Meta-data registration
- Data quality check and archive
- Data format unification
- Data integration function
- Distributed- and Centralized- data distribution

Integration of Earth Observation Data for IWRM under GEOSS

4. User Interface

- Data request: global/regional/local, observed/modeled, natural science/socio-economic
- Function request: data integration, information fusion, analysis, prediction, dissemination

Integration of Earth Observation Data for IWRM under GEOSS

5. Data Policy

1) Release of Data in Compliance with WMO Resolution 40 (CG-XII) and WMO Resolution 25 (CG-XIII)

2) No Commercial Use or Exploitation

3) No Data Transfer to Third Parties

4) Timing for Release of AWCI River Basin Data from the CDA Archive

category 1 - standard data - data release after 6 months

category 2 - special data - data release after 15 months

• Streamflow data - (i) operational - category 1 data; (ii) research site maintained by university, through a project - category 2 data; also remote sites need to be included in category 2 data

• Suggestion: to have 3 categories of data - the third category - real time or near-real time data (radiosonde data from operational sites)

5) Acknowledgement and Citation

6) Co-operation between AWCI Data Users and AWCI River Basin

Principal Investigators (PIs)

7) Co-Authorship for AWCI River Basin Principal Investigators (PIs) 10

8) AWCI Publication Library

Work to be done

- Identify needs and resources
 - Prioritize and categorize
- Identify communication/implementation mechanism
 - Synchronize with Demonstration Projects
- Next steps

Target groups

- Researchers / Scientists
 - Customizing existing knowledge to suit local conditions supported by global experiences
- Professional / Practitioners
 - Introducing new methods, tools, standards
- Administrative / Local governments
 - Over view of technology and science

Needs/Resources Matrix

	TG -1 (Res)	TG-2 (Professionals)	TG-3 (Decision makers)
CB-OI	common	common	common
	flood		
	Drought		
	Water Quality		
CB-IA			
			13

Implementation of CB

- Development or re-alignment of existing CB programs to take place with the DP development
- Planning for CB programs to fill gaps
- Communication / coordination mechanisms

International Coordination Group

Country Representative

- Bangladesh -- Samarendra Karmakar (Bangladesh Meteorological Department)
Bhutan -- Karma Chhophel (Hydro-met Services)
Cambodia -- Long Saravuth (Department Hydrology and River Works)
China -- Qian Mingkai (Huaihe River Commission, Ministry of Water Resources)
India -- Nilkanth Y Apte (India Meteorological Department)
Indonesia -- Joesron Loebis (Research Institute for Water Resources)
Japan -- Toshio Koike (The University of Tokyo)
Korea -- Deg-Hyo Bae (Sejong University)
Laos -- Chanthachith Amphaychith (Lao National Mekong Committee)
Malaysia -- (Cancelled)
Mongolia -- Davaa Gombo (Institute of Meteorology and Hydrology)
Myanmar -- Htay Htay Than (Dept. of Meteorology and Hydrology)
Nepal -- Shiv Kumar Sharma (Department of Water Induced Disaster Prevention)
Pakistan -- Bashir AHMAD
(Water Resources Research Institute/ National Agriculture Research Center)
Philippines -- Flaviana Hilario (PAGASA/DOST)
Sri Lanka -- S. B. Weerakoon (University of Peradeniya)
Thailand -- Thada Sukhapunaphan (Ministry of Agriculture and Cooperatives)
Uzbekistan -- Sergey Myagkov (Hydrometeorological Research Institut)
Vietnam -- Khanh Van Duong (National Hydro-meteorological Forecasting Center)

WG Co-chairs: K. Fukami (Flood), C. Fu (Drought), B.Hoque (Water Quality)

Invited Experts: C. Ishida (Satellite), S. Herath (CB)

AWCI Secretary: A.Goda, P.Koudelova, O. Saavedra, K.Tamagawa

Timeline

2007 Pre-phase: survey of capabilities

Summary of inputs of observations, and needs and resources of capacity building

Drafting a Implementation Plan

Summer ITT2

Input to the Task Sheets

Test Archive: Metadata, Observed Data during CEOP Phase 1

Autumn/Winter AWC13 → Input to the 4th EO Summit

Review of Updated Status of Test Archive

Adoption of the Implementation Plan

2008-2011

Data Archive 2007-2010 (considering *water year*)

Demonstration Implementation

2009 -2010

Preparation for shifting

from more-research to more-operational phase

Toward Convergence

