

Interim Report for CAPaBLE Project (2009)
CBA2008-12NMY-Ishida

Part One (350 words)

1. Project Title

“The **Global Earth Observation System of Systems Asian Water Cycle Initiative Observation Convergence and Data Integration** (GEOSS/AWCI/OCDI)” for water cycle research and water resources management under climate change in Asia.

2. Project Leader Details: Name, Institution, Email Address, Website

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3. Collaborating Countries

The GEOSS/AWCI/OCDI involves many Asian countries including but not limited to: Bangladesh, Bhutan, Cambodia, China, India, Indonesia, Japan, Korea, Lao, Mongolia, Myanmar, Nepal, Pakistan, Philippines, Sri Lanka, Thailand, Uzbekistan, Vietnam.

4. Non-technical summary

In recognition of the need for accurate, timely, long-term, water cycle information as a basis for sound and effective water resources and risk management and with regards to the ongoing initiatives pursuing to meet this need, the GEOSS/AWCI/OCDI project has been initiated. The project follows-up on the data focus of the IIWaDATA project (ARCP2007-02CMY) and is contributing to the development of a sustainable scheme for water cycle data collecting, sharing, exchanging, and management at the regional level in Asia in cooperation with national governments, institutes and research communities and also international organizations.

Through a series of meetings, the IIWaDATA project established a mutual consensus among the participating countries and international organizations that defines data sharing and exchanging policy and responsibilities for data processing, management and archiving. This strong cooperative framework has evolved into a large regional initiative recognized by the Group on Earth Observations (GEO) as a GEOSS activity: GEOSS Asian Water Cycle Initiative (AWCI). The GEOSS/AWCI/OCDI project has been further significantly contributing to the development of the Data Integration and Analysis System (DIAS) that was launched in 2006 as part of the Earth Observation and Ocean Exploration System, which is one of five National Key Technologies defined by the 3rd Basic Program for Science and Technology of Japan.

Part Two

1. Project Objectives

The aim is to develop an information system of systems for promoting the implementation of integrated water resources management (IWRM) through data integration and sharing as a basis for sound decision making of national water policies.

The project contributes to the AWCI objectives that include:

1. To develop Integrated Water Resources Management (IWRM) approaches;
2. To share timely, quality, long-term information on water quantity and quality, and their variation as a basis for sound national and regional decision making;
3. To construct a comprehensive, coordinated and sustained observational system of systems, such as prediction systems and decision support capabilities, under the GEOSS;
4. To develop capacity building for making maximum use of globally integrated data and information for local purposes as well as for observation and collecting data.

3. Relevance to the APN's Science and Policy Agendas

Science Agenda – GEOSS/AWCI/OCDI focuses on specific science issues related to climate, atmosphere/land interactions, and impacts of water cycle variability on resources as a way of addressing capabilities for sustainable development. By surveying existing and the development of new methods

related to these scientific and societal issues, GEOSS/AWCI/OCDI will contribute to the improvement of the effectiveness of transfers of scientific knowledge to decision-makers in the Asian region.

Policy Agenda – By cooperating with other institutions and bodies that address issues relating to science policy interactions such as WMO, ICSU, IOC, UNESCO, and others, the project is embracing a specific APN strategy formulated under its Policy Agenda.

4. Work undertaken and results to date

A kick-off plenary meeting, that included AWCI International Coordination Group (ICG) members, was held at the occasion of the 4th Conference of the Asia Pacific Association of Hydrology and Water Resources (APHW), in Beijing, China, 3-5 November, 2008. A full day special session on AWCI was held on 5 November and the 3rd meeting of the AWCI followed at the same venue on 6 November. The 3rd AWCI ICG meeting reviewed the progress of the AWCI activities, with a focus on the AWCI Demonstration Projects (DPs) for 18 river basins in the participating countries. 10 out of the 18 river basins are now ready to upload raw observation data. Detailed hydrological models were developed for the DPs of four river basins (the Tone River (Japan), Meghna River (Bangladesh), Pampanga River (Philippines), and Huong River (Vietnam)). The activities of the 3 Working Groups (WGs) (Flood and Landslides, Drought and Water Scarcity, and Water Quality) were also reviewed. It was decided to establish the fourth WG on Climate Change Impacts and Adaptation. WGs identified priority activities and agreed to develop their implementation plan at next ICG meeting in Kyoto. In addition, two related capacity building workshops were held in Indonesia (July) and Bangladesh (August) that addressed rainfall downscaling, hydrological modeling, flood risk management, etc.

5. Self evaluation against project objectives

The first year of the project has been successful in transferring from planning to implementation. Since the beginning of 2008, meta-data and data archiving and data quality check for the 18 demonstration river basins has started. Development of training modules and their integration for the demonstration projects are being implemented. Applications of newly developed distributed hydrological models to the four demonstration river basins showed significant advantage of such modeling technique for water resource management and disaster risk reduction. These GEOSS/AWCI/OCDI project activities have significantly contributed to the AWCI Demonstration Projects and Capacity Building plan implementation (<http://monsoon.t.u-tokyo.ac.jp/AWCI/>).

6. Publications (to date and/or pending): None

7. Acknowledgments

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