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RA II Pilot Project Newsletter

DEVELOPING SUPPORT FOR NATIONAL METEOROLOGICAL AND
HYDROLOGICAL SERVICES IN SATELLITE DATA, PRODUCTS AND TRAINING

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GEOSS/Asian Water Cycle Initiative (AWCI)

The Asian monsoon is the largest water circulation system in the world. More than 60 percent of the world population lives under the influence of the Asian monsoon system. Floods are a recurring problem in Asia. Urban expansion in Asia is dramatically accelerating the economic impact of floods. Land slides and mud flows are common natural disasters in Asia. The Asian monsoon normally provides a water rich environment. Large variations in Monsoon rainfall can sometimes causes severe droughts. Rapid population growth is straining existing water resources. Water quality and the ecosystem are impacted by excessive usage.

Populations drinking arsenic-rich water over long periods show severe health effects. Storm surges and tidal waves cause serious damages in the large deltas and coastal cities.

The 4th Assessment Report (AR4) of the Intergovernmental Panel on Climate Change (IPCC, 2007) has presented evidence for many climatic trends at a global scale that will affect water security adversely, including (i) increases in high-intensity precipitation events; (ii) increases in drought-affected areas; (iii) increase in the intensity of tropical cyclones; and (iv) sea level rise. These changes are now fundamental threats in Asia, where is inherently vulnerable due to the water-related problems.

To address the common water-related issues in Asia, Asian country representatives establish the Global Earth Observation System of Systems Asian Water Cycle Initiative(GEOSS/AWCI) in 2005. The GEOSS/AWCI promotes the Integrated Water Resources Management by making maximum use of the GEOSS. Twenty member countries have been working together. The hydrological data is archived under the full data opening policy. Satellite data, weather and climate prediction model outputs, and ground-based observed data are integrated to generate information for making sound water resources management decisions.

design of unique training courses by aggregating several modules. Various types of training courses have already been offered responding to the actual needs.

For example, to support the relief activities and recovery planning against the serious damage in Pakistan due to floods caused by heavy rain, the inundation area was continuously observed by the Advanced Land Observing Satellite (ALOS, "Daichi") of JAXA. The processed data sets overlaid on the ASTER Global Digital Elevation Model (ASTER GDEM) and the Google Map have been offered to the government of Pakistan.

GEOSS/AWCI has surveyed the capacity development needs of the member countries. The participating universities, space agencies and research institutes have already registered their contents to offer as modules of training course. GEOSS/AWCI can make

GEOSS/AWCI is a regional technology-based solution for water-related problems in Asia.
<http://monsoon.t.u-tokyo.ac.jp/AWCI/>

(Toshio Koike, The University of Tokyo)

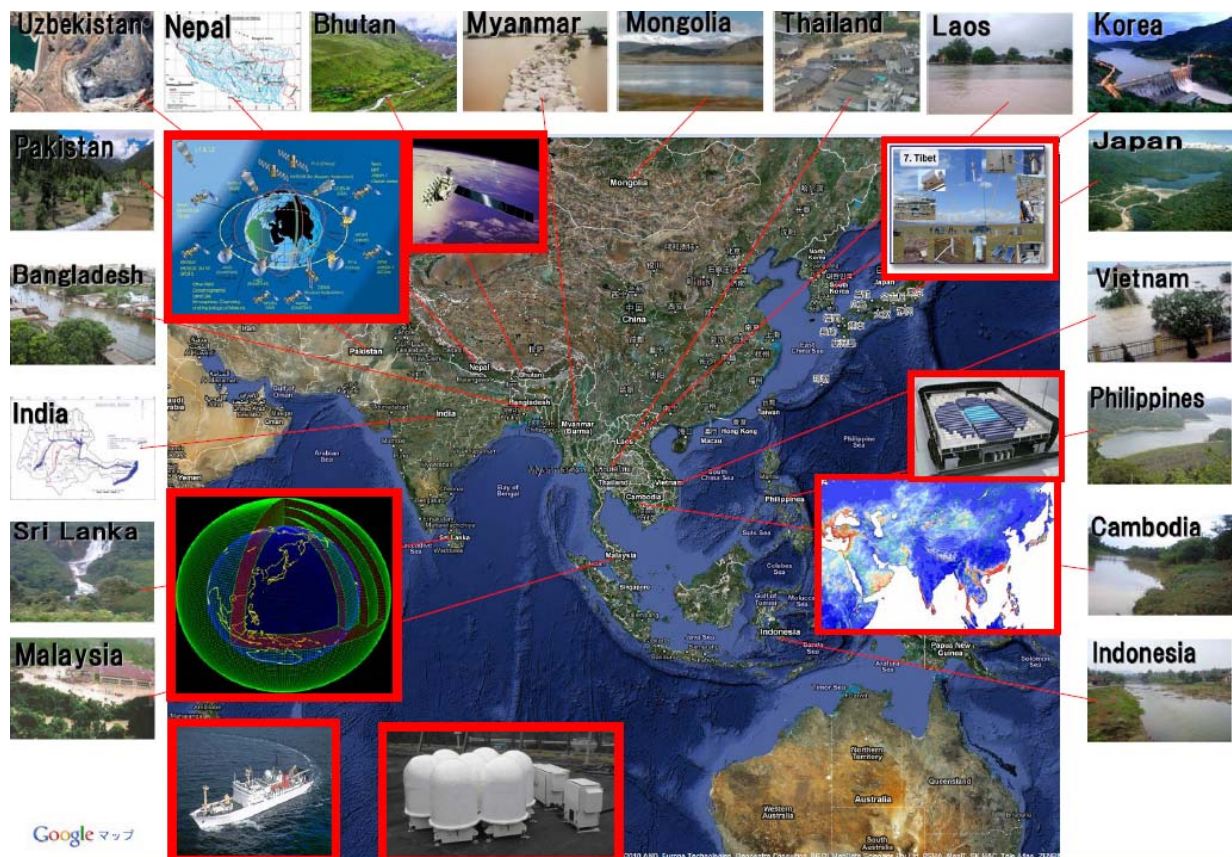
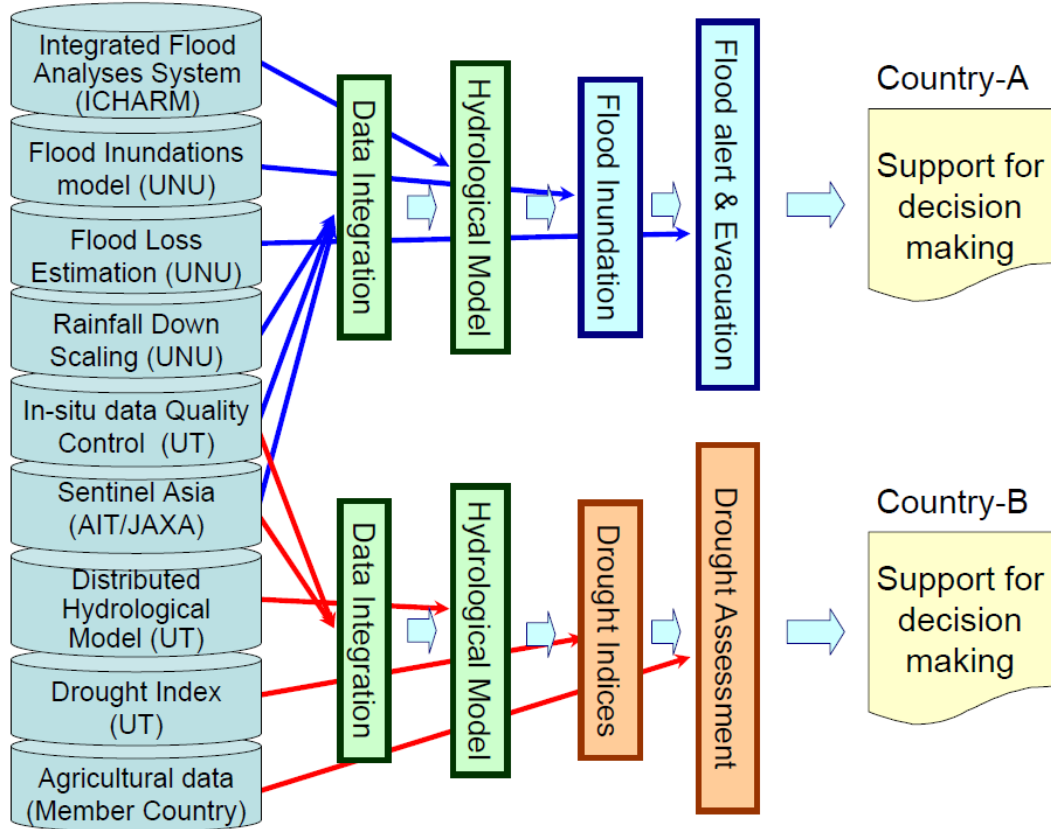
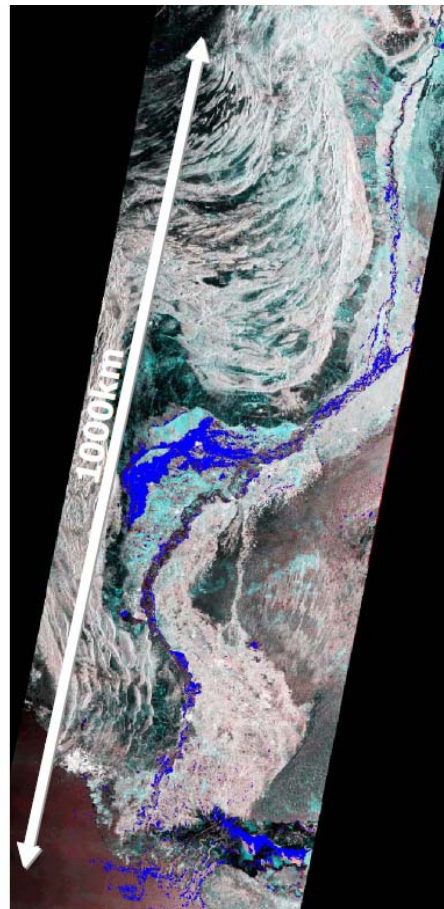


Fig. 1: 18 Demonstration Basins in GEOSS/ AWCI



	PALSAR_Flood + Road (Please click left mouse then high resolution image appear in new window. Please click right mouse button there and select "save image as" to save high resolution image.)	GDEM + PALSAR_Flood + Road (Please click left mouse then high resolution image appear in new window. Please click right mouse button there and select "save image as" to save high resolution image.)	On the Google Earth (Please click "open" when you asked on your computer). Or please download "kmz" file on your computer then double click it. You can see the flood area on the google earth.)
2010/08/05 (Thu.)			 20100805_pakistanflood_palsar_wb1_ge.kmz
2010/08/19 (Thu.)			 20100819_pakistanflood_palsar_fbd_ge.kmz
2010/08/22 (Sun.)			 20100822_pakistanflood_palsar_wb1_ge2.kmz
2010/08/27 (Fri.)			 20100827_pakistanflood_palsar_wb1_ge.kmz
2010/08/29 (Sat.)			 20100829_pakistanflood_palsar_wb1_ge.kmz



The 38th Coordination Group of Meteorological Satellite meeting

The 38th meeting of the Coordination Group for Meteorological Satellites (CGMS-38) was hosted in New Delhi, India, by the India Meteorological Department from 8 to 12 November, 2010. In attendance were representatives from 64 operators of geostationary and polar orbiting meteorological satellites and from the World Meteorological Organization (WMO), including KMA (Korea), IMD/ISRO (India), JMA/JAXA (Japan), and ROSHYDROMET/ROSCOSMOS from the area of WMO Regional Association II (RA-II). Unfortunately, representatives of CMA/CNSA were unable to attend, but reported on their activities by sending 20 working papers.

The objective of the meeting was to exchange information on meteorological satellites over a wide area. First, the attendees were divided into four working groups (WGs) to discuss technical and specialist issues; WG-I for telecommunications, WG-II for satellite products, WG-III for contingency planning and WG-IV for global data dissemination. At CGMS-38, WG-II introduced the new discussion subjects of radio occultation, ocean parameters and nowcasting products in addition to calibration/validation, IR and MW sounding, precipitation, atmospheric motion vectors and cloud/ash/dust-related parameters.

After the working-group discussion, a plenary session was held to review the current status of and future plans for satellite systems, reports from the working groups and user support activities. Below are summaries of the individual reports related to meteorological satellite users in Asia.

KMA introduced its first geostationary satellite, COMS, which carries earth-observing payloads of a visible and infrared imager and

an ocean color imager. COMS was successfully launched on 27 June, 2010, and is currently in an in-orbit test phase with actual operation planned for 2011. After the report, CGMS members welcomed KMA as a new meteorological satellite operator.

KMA additionally presented information on its user support activities. It held the 4th International Training Course on the Analysis of COMS Data in summer 2010 in Seoul and Jincheon in the Republic of Korea with 19 invited potential COMS users from 11 countries in the Asia-Pacific region. KMA also reported on its efforts with the WMO-CGMS Virtual Laboratory program (VLab). After the successful launch of COMS, KMA sent an official letter to WMO to request the designation of a WMO-CGMS Center of Excellence in Remote Sensing Application and Satellite Meteorology Training. After the report, EUMETSAT congratulated KMA on having joined VLab.

On behalf of the RA-II Pilot Project, JMA and KMA reported on the activities engaged in during its first phase from September 2009 to August 2010, including the issuance of five newsletters, the launch of a website, the creation of a mailing list, and alignment with VLab activities. They also reported on plans to enhance project activities for the second phase (to run from September 2011 to August 2011), which include enhancing the project website, collecting information on satellite data and products, and sending questionnaires to satellite operators.

JMA reported its commencement in April 2010 of a new service providing training environments (see RA-II Pilot Project Newsletter Volume 5 for details.). Although the coverage of the training was limited at that time to the case of Typhoon Morakot (active from 2 to 12 August, 2009), it will be enriched in the future. NOAA highlighted that this service is extremely useful thanks to the ease of data access it provides by introducing the

McIDAS data format and an ADDE server that enable users to view satellite data using existing client viewer software.

IMD reported on its activities with the Centre for Space Science and Technology Education in Asia and the Pacific (CSSTEAP), which was established in 1995 with the support of the United Nations Office for Outer Space Affairs (UN-OOSA). CSSTEAP conducts a training course called the Satellite Meteorology and Global Climate (SATMET) program once every two years. Six SATMET courses have been run since 1998, providing more than 100 participants from 20 countries in the Asia-Pacific region with education programs.

WMO reported on training activities within the Virtual Laboratory for Education and Training in Satellite Meteorology (VLab). A variety of developments had been made since CGMS-37, including significant VLab roadmap development, the securing of funding for a Technical Support Officer (TSO) and the holding of the fifth Virtual Laboratory Management Group meeting (VLMG-5) in July 2010 in Beijing, China. After the report, IMD

expressed its wish to join the WMO VLab project, and the request was welcomed by WMO.

Also presented was a CMA working paper reporting on the success of CMA's hosting of the first Asia/Oceania Meteorological Satellite Users' Conference on 1 and 2 November, 2010, in Beijing with co-sponsors WMO, the Group on Earth Observations (GEO), JMA and KMA. JMA then announced that it would host the second conference next year in line with expectations for the event to be held on a continuous basis in the region.

At the close of CGMS-38, CGMS was pleased to accept an offer from ROSHYDROMET to host CGMS-39 in St. Petersburg, Russia, next year. Finally, WMO expressed appreciation to IMD on behalf of all the participants for its excellent organization of the meeting.

(Yoshihiko Tahara, JMA and Dohyeong KIM, KMA)



CGMS-38 participants. The picture was taken during the excursion to Taj Mahal, a UNESCO World Heritage Site.

**Second-phase Action Plan of
the Pilot Project to Develop Support for NMHSs
in Satellite Data, Products and Training
(Second phase: September 2010 – August 2011)**

31 August 2010

Pilot Project Coordinating Group

(1) Issuance of Quarterly newsletters for RA II Members (from September 2010)

The contents will include:

- Access to satellite imagery, data and products including application products
- Training activities currently available or to be available in the future
- News on meteorological satellites
- News on new services
- Brief progress reports on the pilot project
- Introduction to the activities of other RAs and WMO VL activities

(2) Enhancement of Pilot Project Web Pages on the WMO Space Programme (WMOSP) website hosted by WMOSP (by the end of 2010)

Web pages will include:

- Information on access to satellite imagery, data and products as well as training
- Newsletter archives
- RA II Pilot Project Questionnaire

(3) Enhancement of a mailing list for RA II Members and another one for Coordinating Group members (by April 2011)

- More effective collection of opinions on the newsletter, requirements, etc. from RA II Members

(4) Identification of requirements from RA II Members (by April 2011)

- Implementation of web-based RA II Pilot Project questionnaire system on satellite data utilization among RA II members on the RA II Pilot Project web pages with a computerized answer sheet
- Sharing of questionnaire results through the web pages
- Preliminary evaluation from Pilot Project Coordinating Group members (by the end of 2010)
- Identification of requirements through the above activities and by preparing for a survey of RA II Members in order to organize assistance to recipient Members (by April 2011)

(5) Alignment of pilot project activities with Virtual Lab activities to optimize assistance to NMHSs in RA II (by August 2011)

- Ongoing liaison with the WMO Secretariat and the VL Secretariat (EUMETSAT) for information sharing in order to optimize assistance to NMHSs while avoiding duplication of effort
- Endorsement of Training Workshop/Users Meeting activities in RA II

(6) Creation of a third-phase working plan (by August 2011)

- Identification of possible imagery, data and products
- Identification of possible training activities

Meeting of the Coordinating Group of the RA II Pilot Project to Develop Support for NMHSs in Satellite Data, Products and Training

The Japan Meteorological Agency (JMA), with the cooperation of the Korea Meteorological Administration (KMA), is planning to hold a "Meeting of the Coordinating Group of the RA II Pilot Project to Develop Support for NMHSs in Satellite Data, Products and Training", from 21 to 23 February 2011 at the JMA headquarters in Tokyo, Japan for efficient implementation of the Second-phase Action Plan, particularly identification of requirements from RA II

Members and alignment of pilot project activities with Virtual Lab activities to optimize assistance to NMHSs in RAII to: (1) facilitate the timely provision of satellite-related information by satellite operators to users, i.e., NMHSs in RA II, especially developing countries including Least Developed Countries (LDCs); and (2) share training materials to enhance the capacity building for both international and internal usages, avoiding duplication of efforts of other ongoing activities such as the Virtual Laboratory (VL) of CGMS

(Toshiyuki Kurino, JMA)

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Head of Meteorological Operations Division
EUMETSAT

From the Co-editors

The co-editors invite contributions to the newsletter. Although it is assumed that the major contributors for the time being will be satellite operators, we also welcome articles (short contributions of less than a page are fine) from all RA II Members, regardless of whether they are registered with the WMO Secretariat as members of the Pilot Project Coordinating Group. We look forward to receiving your contributions to the newsletter.

From December 2010, Dr. Dohyeong KIM has become a new co-coordinator of KMA, and he will continue the co-editor's role.

(Toshiyuki KURINO, JMA, and Dohyeong KIM, KMA)

RA II Pilot Project Mailing Lists

Two mailing lists for discussion on the pilot project will soon be set up using the Google Groups service, and will be implemented either through the Google Groups web interface or by e-mail.

One list is for Pilot Project Coordinating Group members who are already registered with the WMO's Regional Office for Asia and the South-West Pacific.

Group name: ra2pp_sat_cg

Group home page:

http://groups.google.com/group/ra2pp_sat_cg

Group email address:

ra2pp_sat_cg@googlegroups.com

The other list is for RA II Members in general.

Group name: ra2pp_sat

Group home page:

http://groups.google.com/group/ra2pp_sat

Group email address:

ra2pp_sat@googlegroups.com

RA II Pilot Project Home Page

<http://www.wmo.int/pages/prog/sat/RAII-PilotProject.html>

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