



Technical Workshop on  
“Advances in Flood Forecasting and Risk Management”

May 16th, 2013, Time 13:30–16:30

The 2nd Asia-Pacific Water Summit (2nd APWS)

Venue: Meeting Room# 24 Pood-sorn, The International Convention and Exhibition Centre  
Commemorating His Majesty’s 7<sup>th</sup> Cycle Birthday Anniversary Chiang Mai, Thailand

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Floods are major natural disasters affecting large areas and millions of people world-wide every year. Although it cannot be prevented but planning the emergency measures though flood management can often reduce their disastrous consequences. Flood forecasting and warning can be an effective tool in flood risk management by enabling authorities, businesses and the public to take actions in advance of a flood to reduce the damage.

The session was divided into two parts. The first part emphasized on advances in Flood forecasting and risk management given by four invited speakers from four world leading organizations are Dr.Henrik Madsen from DHI Denmark, Mr.Tjitte Nauta from Deltares The Netherlands, Mr.Minoru Kuriki from FRICS Japan and Mr. Kyoung Muk Kim from KRC Korea. This part focused on new development in flood forecasting and early warning technologies, applying real-time optimization and data assimilation to the forecasts is the key improvement. Ensemble forecasting is also essential for risk management and decision making. The warning is also required a close examination before public announcement to prevent misleading information. An innovative approach for countries to deal with all possible future climates with available tools and measures is “adaptive flood risk management framework”, allowing integrated assessment of multi inputs (people, climates, etc.), multi scales (local, national and international) and multi temporal (short and long terms).

The second part focused on country practices and lessons in flood control and disaster management given by two representatives from flood management organizations Mr.Lanthom Phouthachack from DTI Laos and Mr.Thada Sukhapunphan from RID Thailand. It mainly focused on examples of developing countries where high technologies are not fully invested. In Laos, there is high disaster from flood during 2012 to 2015 in term of number of occurrence and number of effected people. Recommendation from UNDP from the study “Scoping Assessment of Climate Change Adaptation Priorities in the Lao PDR” is to have knowledge to cope with such change and platform for participatory principle. However, a weak point in Disaster Risk Reduction (DRR) in National Disaster Management Plan is lack of co-operation. Therefore, technical co-operation with other ASEAN

countries is necessarily required for technology Innovation related to water disaster. For Thailand, characteristics of storm and inundation occurred in the great flood 2011 has been explained. It is very long flood duration up to 2-3 months compared with the normal one with 1 month. Flood routing and travel time in a Lower Chao Phraya River Basin is computed relate to flood warning time. Levee system along river is important for flood protection. There is allowed distance between river and levee so that people who are suffered from flood can move to an area behind levee. Improvement of flood prevention in Thailand from upstream to downstream has been described. The highlight is to increase storage in dams 3,440 million cubic meters and to shift the crop calendar to end of August instead of September. In this case, paddy field can provide additional storage of 5,000 million cubic meters.