



International Expert Workshop Towards urban water security in Southeast Asia: Managing risk of extreme events

19-20 November 2015
Phnom Penh, Cambodia

Background

Southeast Asia is steadily urbanizing; urban population in the region has increased from 15.5% in 1950 to 41.8% (or about 250 million people) in 2010 and is expected to reach to 50% by 2025 as per the statistics of UN Population Division published in 2010. Growing urbanization brings number of challenges, which are all threatening urban and water security by imposing significant strains on urban and water systems and other resources. Urban areas are likely to face further water insecurity if the trends in climate change, increased water demand, and inefficient water use, continued at the current rate. With ongoing variability and change in climate, magnitude and frequency of extreme events (e.g. floods and droughts) are increasing. The extreme events and associated governance challenges contribute to insecurity for urban water in many ways, and therefore have implications for urban sustainability. As water is at the heart of energy, food and ecosystem, the key resources to support urban habitants and their health, extreme events also threats to sustainable utilization of those resources. Under such pressures, adequate strategies and measures, including climate change and adaptation, are required to characterize and manage risks of extreme events on urban water, energy, food and ecosystem.



Urban and resource managers have adopted different approaches for improving water security, through combating sources of water insecurity and promoting water security. Some have adopted integrated approaches to yield mutually beneficial improvements in water resources and improved management of extreme events by addressing trade-offs among urban water users, food and energy producers, and the need to protect ecosystems. Sustainable solutions to these challenges should maximize opportunities for optimizing water use efficiency, harnessing the knowledge of current and future state of water resources, generating resources from urban waste, and pooling available resources by working collaboratively and coordinately. The solutions also need to be adaptive to long-term investment needs, increasing energy prices, and demands for low carbon and climate-smart solutions.

To learn from current practices and prepare for the future urban centers, this expert workshop provides a platform to share research and better practices for managing risks of extreme events to urban water security among academia, research scholars, professionals, practitioners and government authorities in Southeast Asia and beyond.



Objectives

- To characterize complexities of urban water environments in the region
- To understand impacts and risks of extreme events on urban water security
- To share better technologies, techniques and management approaches for securing water and other resources in urban areas
- To strengthen network among urban water professionals in Southeast Asia and beyond

Themes

1. **Characterizing urban water security and complexities:** it includes but not limited to extreme events and urban security; concepts, issues & challenges of urban water security; climate change and cities; urban water conflicts; and urban water infrastructures.
2. **Urban water systems and services - risks and opportunities:** it includes but not limited to urban water cycle modeling; uncertainties in the modeling; risk assessment and management of urban water services; life cycle of urban drainage and its management.
3. **Interlink of urban water to energy, food, health and ecosystem:** it includes but not limited to water footprint of urban centers; water-energy-carbon nexus of cities; water, waste water and health risks; resource recovery (from waste to water) and urban water security; resource dependencies and complexities across agriculture, energy and water sectors.
4. **Extreme events and urban vulnerability:** it includes but not limited to current trends of extreme events in urban centers; vulnerability of cities to extreme events; uncertainties of extreme events in cities; extreme events and impacts on water-energy-food nexus in cities; design and implementation of early warning systems in urban areas.
5. **Responding to urban water insecurity:** policy, legal and institutional dimensions of water security; demand-side management; securing water in aftermath of disasters; education and capacity building; urban water governance models; water-secured and climate resilient cities.
6. **Role of communities in risk management:** it includes community-based risk management, local initiatives in risk management, etc.

Expected outputs

- Increased understanding of linkage between extreme events and urban water security
- A strong network of urban water scientists and policy makers
- Workshop proceedings and special issue of peer reviewed International journal

Key dates

- Submission of expression of interest and abstract: 7 July, 2015
- Notification of acceptance: 15 July, 2015
- Submission of full paper: 15 October, 2015
- Workshop: 19-20 November, 2015

Publications

- Presented papers will be published in proceedings and selected papers will be invited for publication in peer-reviewed International journal.



Target participants

- Scientists, research scholars, practitioners, and policy makers

Submission of expression of interest and abstract

- Participants are requested to express their interest and submit abstract by filling online form available at: <http://goo.gl/forms/MLFnqB5BMr>

Funding support

- Financial supports are available for limited number of outstanding papers and it covers travel cost, accommodation and registration.

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About the workshop

The workshop is organized by Asian Institute of Technology (AIT). AIT is one of the partners in SEA-EU-NET II project. AIT has been promoting technological change and sustainable development in the Asian-Pacific region through higher education, research and outreach. Established in Bangkok in 1959, AIT has become a leading regional postgraduate institution and is actively working with public and private sector partners throughout the region and with some of the top universities in the world.

SEA-EU-NET II aims to strengthen bi-regional EU-ASEAN Science and Technology Cooperation through coordination and support actions targeted towards the three major societal challenges, namely; Water Management; Health; Food Security and Safety. AIT is leading a component of 'Water Management' with an objective to create network of different stakeholders in order to strengthen the research capacity and to build a platform towards the better system in managing water resources and to respond specifically towards different stakeholder.