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**UNU-FLORES**

**NEXUS OBSERVATORY WORKSHOP**

# **WATER-WASTEWATER NEXUS IN URBANIZING ASIA**

**BUILDING CAPACITY FOR MONITORING WATER QUALITY RISKS**

24–25 May 2016, Ha Noi, Viet Nam

# **PROGRAMME**



Partners





# WATER-WASTEWATER NEXUS IN URBANIZING ASIA

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## BUILDING CAPACITY FOR MONITORING WATER QUALITY RISKS

### Background

In late 2014 a proposal writing workshop was organized jointly by UNU-FLORES and IGES in Tokyo, Japan. The workshop brought together academics and researchers from China, Indonesia, Thailand, Viet Nam and Philippines. In addition a private foundation participated from India. The workshop had three main objectives which were as follows:

- a. Introduce partners in Asia to the Nexus Observatory project and plans to establish an Asia Nexus Observatory Consortium for data sharing in support of improved monitoring and implementation.
- b. Development of short concept notes clarifying water-wastewater-soil nexus in context of urbanization in Asia.
- c. Consolidation of the individual concept notes in the form of a draft concept note that identifies the scope for an Asia regional Nexus Observatory Consortium that informs the design for a regional consultation.

### Nexus Observatory



[nexusobservatory.flores.unu.edu](http://nexusobservatory.flores.unu.edu)

The Nexus Observatory is a flagship initiative of UNU-FLORES that focusses on enhancing the reliability, frequency and quality of data to support improved decision-making for the management of water, soil and waste resources. In the form of an online platform, the Nexus Observatory will advance data classification, strengthen monitoring frameworks and facilitate governance processes for evidence-based decision-making and knowledge transfer. Further it serves as a mechanism to promote seamless interactions between research, capacity development and policy advocacy through the consolidation and translation of knowledge, information and data.

The Nexus Observatory aims to achieve the above aims through its four windows:

1. Linked Databases – allows for the classification of data and knowledge from various sources utilizing novel data collection approaches and examining the role of new technologies (e.g. data visualization techniques, modelling, scenario analysis, earth observation systems etc.);
2. Blended Learning Platform – focusses on the consolidation of knowledge and capacity building through e-learning, tailor made training programs or face-to-face teaching;
3. Nexus Repository – involves the consolidation of knowledge through documentation and analysis of nexus activities, allowing for needs assessments and gap analysis; and
4. Nexus Laboratory – enables the transfer and translation of nexus knowledge and methodologies to support evidence-based decision-making (e.g. scenario analysis, indices etc.).

Regional consortia will have a major role in defining research questions based on local policy priorities, which can then be analyzed and advanced using the tools made available through the Nexus Observatory. Additionally, consortia may contribute to the expansion of the platform itself, by identifying research, policy and capacity gaps. Regional consortia, therefore, play a significant role in defining scale and boundary conditions, developing and testing novel methodologies and approaches, facilitating the sharing of knowledge and data etc. In this way, the Nexus Observatory can serve as an important tool for the monitoring of progress, capacity development and analysis of policy options.

## **Monitoring the Sustainable Development Goals (SDGs): the Global Environmental Monitoring Initiative (GEMI)**

GEMI is an inter-agency partnership comprising, amongst others, the UN Environment Programme (UNEP), the UN Human Settlement Programme (UN-HABITAT) and the World Health Organization (WHO). UNU-FLORES has recently signed a Memorandum of Understanding (MoU) with UN-HABITAT to collaborate on developing, testing and evaluating the SDGs monitoring methodologies, in particular with reference to SDG Goal 6 (*ensure availability and sustainable management of water and sanitation for all*) focusing on Target 6.3 (*by 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and increasing recycling and safe reuse globally*).

GEMI is premised on the realization that water is an essential resource that contributes to socio-economic development, healthy ecosystems and human survival. Appropriate water governance, preservation and monitoring of its quality are at the core of this initiative. A key challenge constitutes the availability of reliable, up-to-date and complete data and information that could enable policy choices that are based on coherent evidence and, hence, may produce better outcomes. A platform for action can only be achieved through a comprehensive monitoring framework that allows for enhanced data acquisition and its analysis thereof. This would allow for progress to be recorded and evaluated thus supporting better decision-making.

A consortium in Asia would contribute to the aims of GEMI and the Nexus Observatory and provide a platform for information and experience sharing in the region, while advancing water and wastewater management at local, national and regional levels. A consortium would also allow for enhanced networking, cooperation as well as a harmonized system that allows for data comparability and mutual learning, while facilitating the achievement of SDG targets. Priorities would be driven by researchers and ministries locally with a view to integrating efforts into the global framework.

## **Emerging Priorities**

Since the organization of the workshop in Tokyo, UNU-FLORES and IGES collaborated to discuss key elements of the Asia concept note at a session on data and monitoring at Dresden Nexus Conference in March 2015. Based on discussions and feedback two broad policy-relevant priorities have emerged that could serve to inform deliberations at the regional consultation in Asia.

These two priorities take the form of two questions:

- a. Are decentralized wastewater treatment facilities better placed at mitigating water quality risks? and
- b. Are combined sewers better placed at mitigating water quality risks?

The literature suggests that urbanization significantly affects the natural water cycle in terms of quantity of available water resources and quality of water that is fit for human consumption. In Asia water quality risks have the potential to inundate low-lying areas, spread disease and destroy crops under peri-urban agriculture. This has the potential to adversely affect local and national economies through increased health expenditures, lowered income from sale of crops and reduced productivity of agricultural systems. Therefore, safeguarding water resources, enhancing ecosystem services and monitoring water quality standards have implications for research, capacity development and policy, project and program implementation.

Discussions were initiated to organize a regional consultation in Asia to discuss the above priorities that emerged from the Tokyo workshop. It is expected that the researchers who participated in the Tokyo workshop will play a key role in identifying decision makers from individual countries who can contribute to the regional consultation in Asia. The Ministry of Construction (MoC) and their partner National University of Civil Engineering (NUCE) have expressed an interest in hosting the regional consultation in Ha Noi on May 24-25, 2016.

## Workshop Objectives

- › Engage decision makers in discussions on how water quality risks in urbanizing Asia can be framed within the context of allocations of financial and human resources for infrastructure construction and maintenance, safeguarding public health and development.
- › Discuss capacity development requirements as they relate to data generation, collection, sharing, analysis and coordinated decision-making that support forecasting of water quality risks and their mitigation.
- › Discuss the merits of consolidating regional data and knowledge in the form of case studies that are hosted on the Nexus Observatory online platform of UNU-FLORES that serves to bridge the science-policy divide.

## Expected Outcomes

- › Ascertain applications of nexus approach in addressing water-wastewater challenges in urbanizing Asia.
- › Ascertain common challenges relating to management of water-wastewater resources in urbanizing Asia.
- › Ascertain regional priorities for water-wastewater monitoring strategies with specific reference to target 6.3 of Sustainable Development Goals of the United Nations (UN).

# PROGRAMME

DAY 1 | Tuesday, 24 May 2016

8:30 – 9:00	<b>Registration for Workshop</b>		
<b>Opening Session</b>	Chair: NUCE & IGES		
9:00 – 9:50	Opening Remarks	Dr. Nguyen Hong Tien, Director General, MOC, Viet Nam	10 min.
	Welcome Remarks	Prof. Reza Ardakanian, Director of UNU-FLORES	10 min.
	Welcome remarks	Assoc. Prof. Pham Duy Hoa, Rector NUCE, Ha Noi, Viet Nam	10 min.
	Keynote: Data, Monitoring and Governance	Dr. Mathew Kurian, UNU-FLORES	20 min.
9:50 – 10:20	<b>Group Photo &amp; Coffee Break</b>		
<b>Session 1</b>	<b>Water-Wastewater Nexus in Urbanizing Asia</b> Chair: MOC		
10:20 – 11:20	Philippines presentation on priorities to address water-wastewater nexus	Prof. Augustus C. Resurreccion	10 min.
	Thailand presentation on priorities to address water-wastewater nexus	Dr. Pharino Chanathip	10 min.
	Lao PDR presentation on priorities to address water-wastewater nexus	Assoc. Prof. Dr. Chanda Vongrombath	10 min.
	Indonesia presentation on priorities to address water-wastewater nexus	Prof. Rizaldi Boer	10 min.
	Viet Nam presentation on priorities to address water-wastewater nexus	Assoc. Prof. Tran Thi Viet Nga	10 min.
<b>Session 2</b>	<b>Panel Discussion: Nexus Priorities &amp; Monitoring in Urbanizing Asia</b> Co-Chair: JICA & GIZ		
11:20 – 12:30	Moderator's Remarks: Priorities and monitoring strategies for Urbanizing Asia		
	Panel Discussion: Common Water-Wastewater monitoring & target  <i>Policy makers:</i> Dr. Sigit Nugroho (Indonesia), Mr. Vanhxay Phiomanyvone (Lao PDR), Vincente B. Tuddao, Jr. PhD, CESO IV (Philippines), Ms Thiparpa Yolthantham (Thailand), Dr. Nguyen Hong Tien (Viet Nam)  <ul style="list-style-type: none"> <li>› What are your country's water and wastewater-related development priorities?</li> <li>› What are necessary data and monitoring requirements for project support?</li> </ul>		
12:30 – 14:00	<b>Lunch</b>		
14:00 – 17:30	<b>Field Trip to Wastewater Treatment Facility in Ha Noi</b> Coordinator: NUCE		
	<b>Rest Period at Hotel</b>		
19:00 – 21:00	<b>Welcome Reception and Dinner</b>		

DAY 2 | Wednesday, 25 May 2016

<b>Session 3</b>	<b>UNU-FLORES Nexus Observatory: Data, Monitoring and Governance</b> Chair: IGES		
<b>9:00 – 9:30</b>	1. Day 1 Recap: Dr. Bijon Kumer Mitra, IGES		10 min.
	2. Presentation: Monitoring priorities for SDG target 6.3	Dr. Graham Alabaster, UN-HABITAT	20 min.
<b>Session 4</b>	<b>Discussion on Nexus Monitoring Strategies in Urbanizing Asia</b> Chair: UN-HABITAT		
<b>9:30 – 10:30</b>	Identifying and prioritizing of common strategies for monitoring the Water-Wastewater Nexus in Urbanizing Asia & coordinating cross-country action to overcome the challenges.		
<b>10:30 – 11:00</b>	<b>Coffee Break</b>		
<b>Session 5</b>	<b>Capacity Building Requirements to Support Effective Nexus Monitoring</b> Chair: UNU-FLORES		
<b>11:00 – 12:30</b>	Chair's Remarks	Ms. Kristin Meyer, UNU-FLORES	10 min.
	<i>Break out groups focused on discussing: Common challenges for monitoring regional water-wastewater priorities and monitoring strategies</i>		35 min.
	<i>Panel discussion involving researchers from participating countries to discuss: Capacity development priorities to support effective nexus monitoring</i>		45 min.
<b>12:30 – 14:00</b>	<b>Lunch</b>		
<b>Session 6</b>	<b>National Project Sites &amp; Regional Monitoring Priorities</b> Chair: UNU-FLORES		
<b>14:00 – 15:30</b>	Chair's Remarks	Dr. Mathew Kurian, UNU-FLORES	10 min.
	<i>Break out groups focused on discussing: National projects for monitoring regional water-wastewater priorities and development of nexus monitoring strategies</i>		35 min.
	<i>Panel discussion involving decision makers from participating countries to discuss: Data collection, sharing and analysis to support effective regional monitoring of SDG target 6.3</i>		45 min.
<b>15:30 – 16:00</b>	<b>Coffee Break</b>		
<b>Session 7</b>	<b>Ha Noi Nexus Observatory Workshop: Outcomes Document</b> Chair: IGES		
<b>16:00 -17:30</b>	Chair's Remarks: Presentation of Draft Outcomes Document	Dr. Robert Didham, IGES	15 min.
	<i>Roundtable Discussion on Outcomes and Future Actions</i>		60 min.
	Reaching Agreement on Outcomes Document		15 min.
<b>17:30 – 17:45</b>	<b>Closing Remarks</b> by MOC, NUCE & UNU-FLORES		

# LIST OF PARTICIPANTS

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<b>WHO</b>	Mr. Ton Tuan Nghia	Program Officer	
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<b>JICA (Water and Sanitation team)</b>	Mr. Tadashi Suzuki	Leader of Environment Sector	
<b>JICA (Water and Sanitation team)</b>	Mr. Wako Takahashi	JICA Office at MOC	
<b>German GIZ</b>	Dr. Dirk Pauschert	Director, Programme for Wastewater Management	

# VENUE INFORMATION

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*The Pullman Hanoi is located on Cat Linh Street, only 40 minutes from Noi Bai International Airport.*



Image: map data: Google



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