



SESSION DESCRIPTION

Session description as of 8 May 2012

G1 Effectively integrating water management into urban decision making processes

Presentations

Date: Tuesday, May 15, 2012

Time: 11:30 -13:00

Rooms: S27 and S28

Language: English

ICLEI contact: Emily Dowding-Smith/Maarten De Cock

Organized by: ICLEI

OBJECTIVE

Integrated approaches to managing resources are important in urban decision making processes addressing climate change. Water resources will be affected in different ways in cities as a result of climate change. Many cities will experience shortages during dry spells and flooding during storm events, with associated impacts on infrastructure including grey and black water systems. Simultaneously, increased pressure from urbanisation and population growth in cities puts added pressures on water supplies and urban drainage systems. Areas that used to be crucial for natural drainage and groundwater regeneration are competing with new developments and increasing urban sprawl, destroying the natural water cycle. It is therefore essential that urban water management is integrated into the entire urban development process.

This session provides examples and methods of integrating water management (IWM) into the urban decision making process. An array of case studies will be shared from Lima, Peru; Silesian Metropolitan Area of southern Poland and north-east Czech Republic; Kaohsiung City, Chinese Taipei; Genk, Belgium; and the city of Metro Manila, Philippines, illustrating how various cities are responding with IWM approaches.

OUTCOMES

- Participants will learn how various cities are applying IWM and the progress and challenges of such an approach;
- Participants will be able to learn from the practical solutions that those cities have taken as measures for IWM and apply them to the pressures that water resources face in their own city; and
- Through case studies participants will gain an insight to the variety of different pressures that cities face for their water systems, depending on their location and local climate impacts.

METHODOLOGY

- The facilitator will provide an overall introduction to the session topic and contributors. **(5 minutes)**
- Each presentation will be allotted 10 minutes. **(5 x 10 minutes)**
- The facilitator will manage final questions and answers. **(30 minutes)**
- Closing remarks by the facilitator. **(5 minutes)**

CONTRIBUTORS

Facilitator *Adrian Sym, Executive Director, Alliance for Water Stewardship, Bonn, Germany*

Adrian Sym joined the Alliance for Water Stewardship as Executive Director in 2011. Adrian has a Master's in International Policy and Diplomacy and a diverse range of experiences in the international development sector, including in the field of social and environmental standards. Adrian led Fairtrade International's partnerships program and before this worked for several years on disability-related programs in Bangladesh and Nepal.

Presenter *Rossana Poblet, Research Assistant, Institute of Landscape Planning and Ecology, University of Stuttgart, Germany*

Integration of Ecological Infrastructure Strategy for water sensitive urban planning in cities with arid climatic conditions and climate change: The example of Lima, Peru

Lima faces water scarcity but the urban water cycle and water sensitive approach has not been considered in the urban development process, leading to unsustainable conditions. This presentation will introduce the ecological infrastructure strategy for arid regions that aims to guide the development towards a sustainable, water sensitive, and resilient city.

Rossana Poblet has an MSc Arch and is an Academic Researcher for the Project "Sustainable Water and Wastewater Management in Urban Growth Centres Coping with Climate Change – Concepts for Lima Metropolitana (Perú) – LiWa, Work Package 9 "Integrated Urban planning strategies and planning tools". She works exploring possibilities for the integration of an ecological infrastructure strategy at the Lima city level and also for its consideration in different urban planning instruments.

Presenter *Jan Bondaruk, Head of Department, Department of Water Protection, Katowice, Poland*

IUWM for Silesia Metropolitan Area: Towards holistic basin management in urban spaces.

Silesian Metropolitan Area (SMA) is a region with sustained impact of industry including coal mining resulting in interferences in water relations, located on the edge of two big river basins. The paper will present the gradual implementation of Integrated Urban Water Management (IUWM) into the decision making practices, as a good example of metropolitan areas' transitional process from an industrial to sustainably developed region in SMA.

Jan Bondaruk is currently leading an implementation project of the Technology Development Program for 2010-2020 within the Regional Innovation Strategy of Silesia Region. He is also a member of the European Water Partnership, the International Water Association, the Silesian Innovation Council, the Environmental Committee of Eurocoal, the Regional Territorial Forum of Silesia Region and the Regional Water Board of Odra River.

Presenters *Lei Yang, Professor of Department of Marine Environment and Engineering, National Sun Yet-sen University, Chinese Taipei*

Cheh-Shyh Ting, Professor and Chairman of Department of Civil Engineering, National Pingtung University of Science and Technology, Chinese Taipei

Development of an eco-city based on sustainable water management systems in Kaohsiung city, Chinese Taipei

Kaohsiung City Government (KCG) established a project on sustainable water management systems as part of the master plan of development of Kaohsiung as an eco-city. "The Project of Pearl Connection" was the method of connecting water sections inside the city to form a complete hydrological network. KCG is cooperating with local academic experts and NGOs based on this project to apply more ecological and environmental approaches to its water management.

Lei Yang has a PhD in Environmental Engineering and has been a professor in the Department of Marine Environment and Engineering, National Sun Yat-sen University (NSYSU) in Taiwan since 2000. In 2003, he accepted a position of the Director of Center for Water Resources Studies at

NSYSU. In 2010, he was hired as the department head at NSYSU. He has been hired as a city counsellor by Kaohsiung City Government since 2003.

Cheh-Shyh Ting has an MSc and PhD in Hydrogeology. His previous roles include Visiting Professor at the University of Tokyo, Japan; a Professor and Chairman of the Dept. of Civil Engineering, National Pingtung University of Science and Technology (NPUST); the Chairman of Blue Donggang River Reservation Association, Chinese Taipei; and a Consultant, Dept. of General Affairs, NPUST.

Presenter *Christian Nolf, PhD researcher at the Department of Architecture, Urbanism and Planning, University of Leuven, Belgium*

The Stiemerbeek in Genk: On the structuring capacity of integrated water management solutions in the dispersed Flemish city

Through the case of the Stiemerbeek river in Genk (Belgium), this presentation describes how sustainable solutions to urban drainage and river management issues can be integrated and contribute structurally to the various challenges of spatial planning (nature, urban development, mobility, recreation) in a typical dispersed Flemish city and vice versa.

Christian Nolf is a civil engineer architect (2002, UCL, Belgium) and urban designer (2008, KULeuven, Belgium and UPC Barcelona, Spain). He is currently working as a teaching assistant and as a researcher at OSA, the Research Group Urbanism and Architecture from the University of Leuven in Belgium. His present research focuses on interplays between water management and urban design in the context of urban Flanders.

Presenters *Debra Lam, Associate, Energy and Climate Change, Arup, London, UK*

Building a resilient Metro Manila with Makati City

Due to its coastal location and rapid urban development, Metro Manila is especially prone to climate change impacts and natural disasters, including extreme rainfall, sea level rise, as well as more powerful typhoons. Arup, with Makati City, brought together top city government officials, international donors, and environmental and climate change experts to provide an in-depth look at the water and climate change resilient strategies. This presentation will review the process undertaken and strategies proposed.

Debra Lam joined Arup in London and specialises in policy, climate change, and sustainability and low-carbon issues. She spent two years in the Hong Kong office, managing East Asia's work around cities, and continues to advise local governments around the world. She completed her first degree in foreign service and her graduate work in public policy.

Further recommended reading

Integration of Ecological Infrastructure Strategy for water sensitive urban planning in cities with arid climatic conditions & climate change: The example of Lima, Peru:

<http://www.lima-water.de/en/documents.html?Menu=5>

Ecological infrastructure and water-sensitive parks: green, productive, inclusive, sustainable:

http://www.lima-water.de/documents/stokman_smp2011.pdf

Approach towards sustainable management of watershed areas in dry climatic conditions:

http://issuu.com/rpoblet/docs/mt_rp_atismwadcc
