



## SESSION DESCRIPTION

# C4 Constructing spatial knowledge on water-related vulnerabilities in cities

## Panel discussion

**Date:** Friday, May 30, 2014

**Time:** 09:00-10:30

**Rooms:** S29-31

**Language:** English

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**Organized by:** University of Amsterdam

## OBJECTIVE

This panel analyzes how spatial knowledge is constructed about urban water-related risks and vulnerability, drawing on new collaborative practice-based mapping methods applied in cities in India, Peru, Brazil, Uganda and South Africa. Policy makers, academics, and local communities contribute a variety of risk frameworks in such collaborative mapping processes. Producing maps, which can be utilized in decision-making processes, requires reflexive, iterative and collaborative data collection and analysis, and map-making.

In this panel we are going to explore 1) the added value of unfolding mapping processes and of the maps that result as their products for urban resilience, 2) different types of spatial knowledge that is developed and mutually accepted and 3) how the tensions that may arise between actors in governance actors are dealt with in knowledge construction processes.

## OUTCOMES

Participants will gain a better understanding of:

- The strength and transformative potential of mapping exercises in providing knowledge and insights into water-related risks and vulnerabilities, which can be used for participatory scenario planning in urban contexts.
- How to utilize the results in urban participatory planning approaches for pro-active identification of risks and cooperative risk management processes.

## METHODOLOGY

- Time break down of the session (90 minutes total).
- The facilitator, Ms Isa Baud, will open the panel with a short introduction (**5minutes**)
- Each panelist will give a short presentation setting out the main points and issues (**5x10 minutes**).
- Then, a discussion with Seema Redkar from Mumbai Municipality will follow and the audience will discuss the three guiding questions addressed in the presentations (**25minutes**)
- Finally, the facilitator will make a wrap-up of conclusions (**10 minutes**).



**Guiding questions:**

1. What do mapping processes and the maps that result as their products contribute to urban resilience?
2. How are different types of spatial knowledge developed and mutually accepted?
3. How are possible tensions between actors in governance networks dealt with in knowledge construction processes?

**CONTRIBUTORS**

Facilitator *Isa Baud, Professor, University of Amsterdam, the Netherlands*

Introducing the topic of constructing spatial knowledge on water-related vulnerabilities in cities.

Panelist *Karin Pfeffer, Assistant Professor, University of Amsterdam, the Netherlands*

**Constructing spatial knowledge on water-related vulnerabilities and plausible metropolitan futures in Lima, Peru**

In the City of Lima, new forms of metropolitan governance have constructed both spatial knowledge on water-related vulnerabilities using inclusive scenario-building, and spatial representations on plausible metropolitan futures. New kinds of understanding derived from these processes will be examined to identify the main drivers behind change.

Panelist *Isabelle Desportes, Researcher, Partners for Resilience, the Netherlands*

**Balancing stakes, balancing knowledge: the process of drawing a set-back line along Cape Town's coastline**

Creating a map is based on multi-vocal negotiations within a specific context, while created maps re-shape people's realities, possibly leading to iterative discussions between mapmakers and users. It will be presented how the City of Cape Town navigates these negotiations while tracing a set-back line that seeks to equitably distribute the associated costs and benefits of the set-back zone between all stakeholders.

Panelist *Carsten Butsch, Academic Researcher, University of Cologne, Germany*

**Risk and Complexity – comprehensive knowledge for effective risk governance and disaster management**

A system perspective helps to understand the key factors of events leading to disasters. Comprehensive risk governance and disaster management in urban areas can benefit from framing cities as complex adaptive systems. This presentation will introduce a framework which integrates features of systems thinking into urban risk



management. The framework will be illustrated by examining the example of Mumbai's annual floods and in particular the extreme flooding in 2005.

Panelist *Richard Sliuzas, Associate Professor, University of Twente, the Netherlands*

**Kampala's plausible urban flooding futures: Building insights through integrated collaborative modeling**

Uganda's fast growing capital city, Kampala, experiences regular pluvial flood events that are expected to become more frequent and severe under the combined effects of poorly managed urbanization and climate change. The presentation describes how collating and integrating different spatial and socio-economic data helps improve the understanding of flooding processes in a highly vulnerable, poor neighborhood, and how collaborative efforts have enabled to create and evaluate scenarios of plausible flooding futures.

Panelist *Michaela Hordijk, Assistant Professor, University of Amsterdam, the Netherlands*

**Spatializing knowledge on water vulnerabilities: Lessons learned in mapping processes in Guarulhos (Brazil) and Arequipa (Peru)**

Drawing on participatory mapping exercises with different actors in Guarulhos and Arequipa, the barriers encountered in applying participatory GIS will be discussed, and, the importance of incorporating resident's local knowledge and professional knowledge of organizations will be stressed.

Speaker *Seema Redkar, Officer on Special Duty, Mumbai Municipal Corporation, Mumbai, India*

Insights into water-related environmental risks will be provided and ways of tackling those risks from practice will be shared.

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**Further recommended reading**

Chance2Sustain:  
[www.chance2sustain.eu](http://www.chance2sustain.eu)

Collection of three papers on megacities and risk:  
<http://gfzpublic.gfz-potsdam.de/pubman/faces/viewItemFullPage.jsp?itemId=escidoc:43202>

A UNU policy paper on the megacity resilience framework:  
<http://www.ehs.unu.edu/publication/view/12>

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