



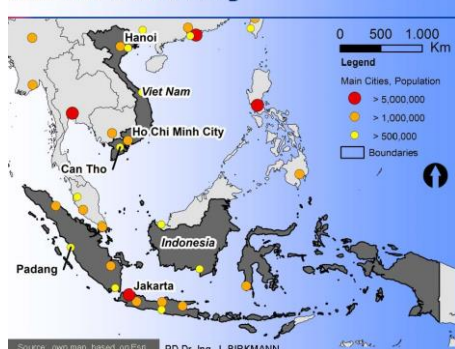
DELTA IN TIMES OF CLIMATE CHANGE II INTERNATIONAL CONFERENCE

OPPORTUNITIES FOR PEOPLE, SCIENCE, CITIES AND BUSINESS
ROTTERDAM THE NETHERLANDS, 24-26 SEPTEMBER 2014

Deltas in Depth scientific sessions	
Deltas in Depth Theme 5. Urban adaptation to climate change	
DD 5.2 Urban adaptation tools and strategies	
Chair	Prof. Bruce Glavovic, Massey University, New Zealand
Presentations	<ul style="list-style-type: none"> ● PhD Joern Birkmann, United Nations University, Institute for Environment and Human Security, Germany ● Barbara Dal Bo Zanon, University of Potsdam, Germany ● Dr. Hitoshi Nakamura, Shibaura Institute of Technology, Japan ● Dr. Frans van de Ven, Deltares, the Netherlands ● MSc Leon Valkenburg, Witteveen+Bos, the Netherlands ● Elke Kruse, HafenCity University Hamburg, Germany

New challenges for adaptive urban governance in highly dynamic environments: Revisiting tools and strategies, PhD Joern Birkmann

Can Tho and Padang



There are two main differences between Indonesia and Vietnam: The first has a decentralized governance system where responses are often not reported nor communicated and where local perceptions are often in conflict with scientific knowledge. The latter country has a centralized system where the multiple planning lines often mismatch. For example: new housing areas are appointed in flood risk areas and new housing is too luxurious for migrants from rural areas to cities.

Necessary changes: from one-dimensional planning towards considering scenarios and uncertainties, the focus on the physical output needs to change. Therefore, both the spatial/urban planning and the governance framework/culture need to change.

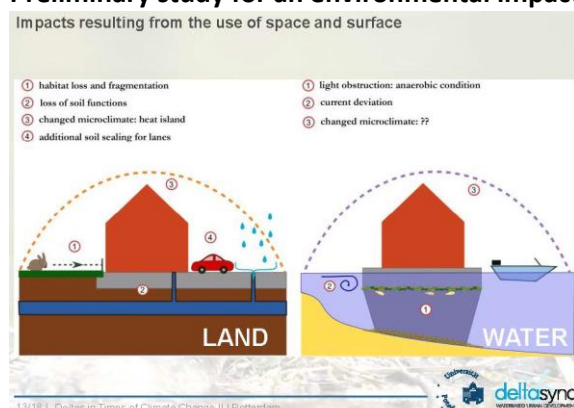
Q: is amount of houses only focus?

A: In Vietnam it is

Q: also in Netherlands and Germany careers depend more on physical output rather than soft planning achievements

A: a balance must be found between cost-efficiency versus flexibility and adaptability

Preliminary study for an environmental impact assessment of floating cities. Barbara Dal Bo Zanon.



Floating pavilion is first step of development on water. More harbours in Rotterdam will become available: what will be the environmental impact of development on water versus land? Development on land have more impact on environment than on water. On water the impact on the marine ecosystem is currently researched with an underwater drone.





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Q: how much material and space is needed for this development in comparison to eg high-rise?

A: high-rise is more costly in material and energy use than low-rise (8-9 floors is cheapest)

Q: have you looked at the consequences of filling water bodies with buildings on eg social aspects?

A: Not part of study

Reevaluation of high standard levees along the Arakawa River as upland



(Arakawa-Karyu River Office, 2013)

evacuation areas in the lowlands of Tokyo, Dr. Hitoshi Nakamura.

The development of the super levee started in 1997 and became possible in 2011 by a new planning policy. Two evacuation areas are appointed and six super levees, which will house many additional facilities next to the predominant park function. The levees provide evacuation space for the rest of the city.

Q: where do you get soil from for construction?

A: from building tunnels

Q: are the projections of sea level rise included?

A: levees should be resistant in future

Q: In case of evacuation to super levee; how long do people stay there?

A: Several weeks is possible, then food and water becomes scarce

Q: Is there more space reserved for water up-/down-stream?

A: yes

The climate adaptation app - providing feasible climate adaptation measures, MSc Leon Valkenburg, Reinder Brolsma.

Climate App



The climate app's objections:

- Quick and reliable selection of feasible climate adaptation measures
- Link measures to adaptation target
- Facilitate discussion
- Stimulate creativity during design phase
- Provide insight in local climate and expected climate change

The 110 measures included are linked to the adaptation target, a description, co-benefits, construction costs and maintenance costs. When applied in Ho Chi Minh City people got more active and involved.

Q: are migration processes or economic and strategic planning included?

A: not possible

Q: app only addresses technical solutions, what about social solutions?

A: social solution were part of initial plan, but we had to leave them out.

Q: although measures are technical, the app makes the process more participatory.

Q: what is successful in the case studies?





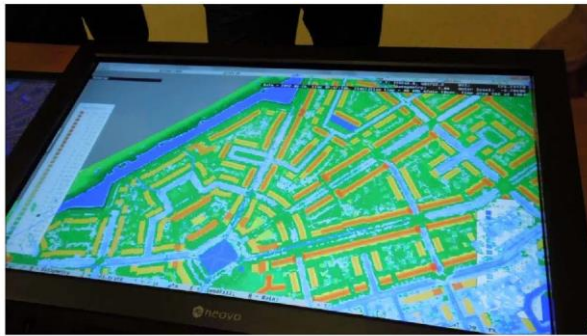
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A: it widens the scope of measures and prevents people choosing only what they already know and it stimulates an integrated plan because different disciplines started to work together

The Adaptation Support Tool for climate resilient urban design & planning, Dr. Frans van de Ven.

The adaptation support tool shows the effects and spatial implication of adaptation measures. It is available for all places in the world and aims to involve designers throughout the whole process to



3Di on MapTable, showing flood-prone areas

Deltares

improve creativity. The touch table is an important ingredient in the use of the support tool in the design process.

Q: how are you dealing with other measures which are needed for eg social problems?

A: The engineering is part of the process, but the dialogue is leading

Q: how do you cope with different levels of education?

A: still in construction to be able to switch to different levels of expertise

Q: The effect of measures is also translated in

a temperature effect in degrees, where is this based on?

A: Only the effect of greening measures are considered in the tool, based on a general formula.

Q: The education purpose of the tool is more important than the decision making process.

Planning tools and design strategies for integrated stormwater management, Elke Kruse

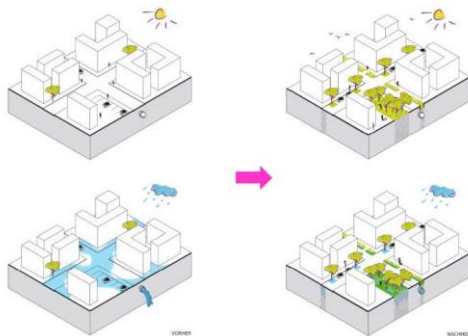


Fig. Elke Kruse

Aim of planning tools and design strategies is to improve public space along with the implementation of adaptation measures. For example in Singapore the need for drinking water posed a problem. Renaturated river sections function as delay of discharge and cleansing of water and at the same time provide a natural recreation environment for inhabitants.

Q: how is the view of the government on the way plans have been done?

A: not part of study