



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 Practice, policy-practice sessions	
Deltas in Practice Theme 1. Risk assessment	
DP 1.3 How the world's largest deltas are learning to learn from each other	
Chair	Renske Peters, Delta Alliance, the Netherlands
Organised by	Dr. Judith Klostermann, Wageningen UR, the Netherlands
Presentations	<ul style="list-style-type: none"> ● MSc Wim van Driel, Wageningen UR, the Netherlands ● Tom Bucx, Deltares, the Netherlands ● Daniel Blanco, Wetlands International Argentina ● Dr. Marcel Marchand, Deltares, the Netherlands ● Dr. Ho Long Phi, Vietnam National University, Vietnam ● Fokke de Jong, Wageningen UR, the Netherlands
Session topic	<ul style="list-style-type: none"> ● Vulnerability assessment of large deltas and appraisal of tools for adaptive delta management
Objective of the session	<ul style="list-style-type: none"> ● To share an assessment of a number of deltas concerning the accommodation of economic progress and ecological quality under future uncertainties such as climate change, global fluctuating markets, and socio-cultural dynamics. And to launch and discuss a new Toolbox for water system analysis, stakeholder organisation, and the development of new designs.
Main conclusions and lessons learnt from the presentations	
<p>Wim van Driel explains the methodology for a global comparative assessment of the vulnerability of deltas, as part of the Transboundary Water Assessment Programme (TWAP). The vulnerability indicators are relative sea level rise, wetlands/ecosystem value, population pressure, and delta governance. The assessment shows that many deltas are vulnerable, especially in Asia. The method does not show spatial variability within deltas.</p> <p>Tom Bucx presents a different assessment method, which combines drivers of change, pressures & potential problems, and governance in a 'delta score card'. Each delta is rated on its resilience and sustainability under different scenarios of change, based on expert judgement. Most of the deltas in this study are currently not resilient and sustainable enough.</p> <p>Daniel Blanco shows the particular threats of the Parana Delta: economic development and, as a result, changes in land and water use, topography, and hydrology. Terrestrialisation of former wetlands is an important change in the ecosystem. Governance poses challenges because of the large number of authorities and civil society organisations involved.</p> <p>Marcel Marchand explains a new way of managing large delta systems: Adaptive Delta Management. He points out that in the past, adaptation was mostly a reaction to disasters; today adaptation means anticipating uncertain changes. Ways to deal with uncertainties are working with scenarios, tipping points, and adaptation pathways. The three approaches can be combined. Ho Long Phi perceives a gap between the expected and actual changes in the Mekong Delta, not only relating to climate, but also in occupation and networks. Adaptive management consists of affordable small steps towards a long-term vision, learning with each step and, where necessary, adjusting the measures in the next step.</p> <p>Fokke de Jong shows the Toolbox for Adaptive Delta Management that the Delta Alliance has put together. The toolbox can be found on the website www.delta-alliance.org/toolbox.</p>	





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Main conclusions of the discussion

The Delta Alliance is a knowledge network that aims to make the results of scientific research available to policy makers and practitioners. It addresses deltas from a large scale perspective (even transboundary issues) as well as smaller scales. Organisations from deltas not yet included can join the Delta Alliance. The network aims to build a community of knowledge. It has a LinkedIn group for discussion and sharing knowledge. It also organises capacity building workshops where deltas find solutions together.

Connecting Delta Cities is a policy-driven network in which coastal and delta cities around the world share knowledge and best practices on water management and climate adaptation.

If the vulnerability assessments are repeated regularly, changes can be monitored. It would also be helpful to indicate what strategies or measures can diminish the risks. Making the assessment more quantitative could be another improvement.

The tools are defined quite broadly; they consist of models, workshop setups, games, and maps. More tools are needed for the implementation phase.

The examples on the website show application of tools to particular deltas, but the tools and the website in general can be used for all deltas. The Toolbox contains 26 tools now. People are invited to contribute tools; a template for this purpose will be available soon.

Main result or conclusion of the session

The assessments show that many deltas worldwide are vulnerable to climate change, but also to economic development and population pressures. We are at a crossroads now: do we invest more in hard infrastructure, or do we accommodate changes in our occupation patterns in response to changes in the base layer? There is not one solution and dynamic delta systems will always require new adaptations. The assessments provide a starting point for discussion and learning together. The Toolbox needs to be expanded in order to assess the value of the implementation of measures. The Delta Alliance welcomes feedback and dialogue.

Most exciting insights or outcomes

- 'Adaptive delta management' formalises what we used to do informally in dealing with uncertainties. Science structures the knowledge and makes it transferable to other deltas.
- The process of learning in a complex adaptive system is never finished. It is important for adaptive delta management to build a local and regional knowledge infrastructure.
- Learning is also about meeting each other. The assessments are a starting point for international dialogue.

