



**Webinar Thought Leadership: Adaptive Delta Management**  
**Marjolijn Haasnoot, Deltares**  
**29 June 2017**

**Webinar report**

On 29 June 2017, over 30 people participated in a Thought Leadership webinar session organised by Delta Alliance in collaboration with Deltares. The session was facilitated by the Water Channel. The session explored the concept of Adaptive Delta Management regarding how cities could be planned and ecosystems managed in the world's delta regions. The webinar session was moderated by Abraham Abhishek of MetaMeta / The Water Channel.

**Key issues**

Apparently, the spate of climate variability, sea level rise among others have exacerbated the vulnerability levels of deltas. Nonetheless, these vulnerable deltas consistently accommodate expanding cities and growing populations. A measure of planning and developing cities coupled with establishing a degree of harmony with ecosystems they are characterized with, is therefore crucial. Moreover, concerning the inherent rapid and dynamic changes of delta ecosystems, the manner of planning and developmental processes have to take into consideration a large number of future scenarios.

**Presentations**

In view of the applicability of Adaptive delta management and how it can be effectively replicated in other delta regions, some presentations were given to address this.

Marjolijn Haasnoot, Senior expert in water management and environmental modelling, Deltares, TU Delft, started the series of presentations with a description of Adaptive delta management. She mentioned that notwithstanding the plethora of ideas in tackling difficulties in delta development and taking advantage of opportunities, the challenge is to identify the best options to deal with future uncertainties, with respect to what to do now and in the future. She emphasized that decisions are made over time in dynamic interactions with the system (delta and its inhabitants) and cannot be considered independently. Past and current decisions influences decisions, options or measures that will be taken in the future. Marjolijn concluded that the principles of Adaptive delta management constitute elements of robustness and flexibility in practice. Thus, it is adaptive to the uncertainties of future events. Again, Adaptive delta management has the principle of combining short term decisions with long term objectives and tasks, stimulating staged decision making (multiple pathways) and linking different services in an integrated approach.

Ad Jeuken, Expert advisor Climate adaptation and water management, Deltares, presented the assessment of barriers and enablers for Adaptive delta management and its applicability in other deltas. Ad pointed out an assessment of the case studies in Bangladesh, Vietnam, Mississippi, Great Lakes and in the Netherlands. He revealed of some common and specific challenges that were inherent to the various case study areas. He mentioned that the drivers for taking the necessary actions in the context of both developed and developing countries were the development objective and the opportunities (economic growth, availability of initiatives (investments)) that evolved. Marjolijn then presented examples of the practices of Adaptive delta management (Delta plans) in the Netherlands and Bangladesh. Ad concluded that Adaptive delta management/ Planning, if prioritized can best promote the organisation of solution space, integration of development and water risk reducing investment and an umbrella for investment projects among others.

Denise Reed, Vice President for Strategic Research Initiatives, The Water Institute of the Gulf, presented comments about the presentations and added some issues. She indicated of the challenges of using the Adaptive delta management approach when problems to deal with, require large infrastructure systems in relation to the case of



Louisiana. Denise pointed out that the degradation of the coast (beyond the tipping point) needs robust and flexible options in developing large scale infrastructure (investments). She concluded by highlighting that Adaptive delta management should be tailored to suit location and context specific needs.

### Discussions

Several questions came up for discussion during the webinar session.

Peter van Veelen asked “In reality, moving between alternative actions is difficult because of investment loss or governance constraints. How to overcome this problem of ‘transfer’ costs between alternatives?” Marjolijn answered that to overcome this challenge calls for experts to give decision-makers more insights on cost-best analysis of pathways including ‘transfer’ costs and not limited to the evaluation of individual decisions.

Also, D. Prince asked: “From a spatial planning/environmental point of view, is it a feasible strategy to minimise/withdraw urban development in delta areas, embarking them for ecological services?” Ad Jeuken answered that the integration of systems and approaches is key in addressing this situation and not the total minimisation of urban development.

Syed Khalil raised the question: “One of the main causes of degradation of deltaic plain lies in human intervention of the watershed. Is it advisable just to concentrate on solution in the delta plain itself?” Ad Jeuken answered that solving the challenges of upstream and downstream developments is paramount. He related this to the case of the Rhine where the Netherlands considers the dynamics in water management because Germany experiences peak discharges (flooding) before the Netherlands. He also mentioned of the case in Bangladesh and other countries where there is imbalance of power and lack of data in tackling potential challenges that might unfold from upstream developments.

Additionally, Adriano asked: “Is it easier to predict future scenarios in the case of rural delta settlements, compared to urban deltas?”. Denise answered that rural population are relatively affected by deltaic changes and are more interested in engaging in discussions than urban residents who feel seemingly isolated from environmental changes. Ad Jeuken added that rural population are more vulnerable and placed at disadvantaged positions regarding competition for investments since they are most times not the first to receive funds.