Deltas in Times of Climate Change
Rotterdam 2010
Connecting world science and deltas

Session DD 7.1: DSS – improving their communicative power

Chairs   Dr. Eric Koomen, VU University, the Netherlands
Keynote speaker Dr. Christopher Pettit, Department of Primary Industries Victoria, Australia
Speakers   Marjolein Haasnoot, Deltares, the Netherlands
                     Anne Leskens, Nelen en Schuurmans, the Netherlands
                     Dr. Asif Zaman, Institute of Water Modelling, Bangladesh
                     Alfred Wagtendonk, VU University Amsterdam, the Netherlands
Rapporteur   MSc. Marit Heinen, Climate changes Spatial Planning, the Netherlands

Christopher Pettit kicked of Theme 7 with a presentation on visualizing climate change adaptation futures, focusing on Australia. The presentation was very visual with amongst others a demonstration of a tool which showed in 3d how a farmer walked through different scenario's for his farm. The images are very realistic and simple visualizations, not even geographical can be very controversial. One of the key challenges of the IPCC is communication; how do we communicate key messages? We can use visualization to paint the future to make the simple policymaker understand. Christopher had an example of policymakers who did not understand why you should downscale your models; ..”they have no idea.” Some of the challenges in visualization are to determine how realistic visualization products should be (photorealistic vs abstract), how to communicate uncertainty and to determine what tool works best with which audience.

Marjolijn Haasnoot gave a presentation on a sort of game they created to develop storylines or pathways for river management. Their hypothesis is that in order to develop sustainable adaptation pathways into an uncertain future the interaction between the water system and society needs to be taken into account. Societal perspectives influence decisions made in the policy arena. Depending on the public support individual players and coalitions receive, they will be able to implement a strategy or not. Whit the game it is possible to get insight in different responses under different circumstances. Beliefs of people can change and they will act according their beliefs. In sustainable water management there is a risk of taking ineffective measures because you tend to choose middle of the road decisions; win-win becomes lose-lose!

Johannes Leskens presented their efforts to improve the level of detail of the type of simulation used for decision support systems. By improving the level of detail they hope to bridge the gap between models and decision making. Decision makers often don't trust models and often don't understand the results. Asif Zaman and his team have developed a water resources Decision Support System that can use output of numerical models to predict likely impacts on key sectors in a region in Bangladesh, such as agriculture, infrastructure, environment, fisheries and navigation. This tool will assist policymakers and planners in climate proofing investments made in this area in Bangladesh.

The amount and quality of open space are diminishing rapidly, affecting both quality of life and viability of ecosystems. Alfred Wagtendonk presented a new method to analyse the landscape impacts on open space that are associated with the large-scale production of biofuels (second generation). Especially in countries such as the Netherlands, open landscapes are very vulnerable to clutter. “A cluttered landscape is a landscape that contains an increased level of variety, combined with a lack of coherence, making a disorderly impression and having several to many visual intrusive elements, both green and artificial”. Biofuel crops can reduce clutter by sheltering intrusive elements and preventing more intrusive agricultural activities. However, Alfred lacks empirical data concerning the likes and the dislike of biofuel crops: “It could all be a matter of taste!”