

## **IAHR session: Deltas – from multiple pressures to integrated solutions**

*Organized by: Utrecht University, Future Deltas research focus area*

### **Session description**

The world's deltas are increasingly subject to high-impact changes, due to massive urbanization, land-use and climate change. Consequently, people living in deltas are facing major challenges to assure livability. This involves dealing with natural and human-induced pressures, like sea level rise, land subsidence, increased flooding risk, competing land claims, loss of vital ecosystem services, and damage liability. Yet, we have only a rudimentary and fragmented understanding of present and future impacts of these pressures on deltas and how people deal with them. To predict their impact and to facilitate sustainable mitigation and adaptation measures it is crucial to have insight and profound understanding of the functioning of both natural and societal aspects of delta systems. An integrated approach is needed, combining fundamental knowledge of natural dynamics of deltas, with specialized knowledge on spatial planning, land and water governance and legislative frameworks. This interdisciplinary challenge has to be tackled by integrating natural and social sciences in research on delta systems.

The objective of this session is to get an overview of:

- 1) Current challenges in deltas related to growing populations and changes in land use and climate. Examples of such challenges are land subsidence, salt water intrusion, loss of ecosystem services, conflicting land claims, damage liability, and deteriorating socio-economic conditions for local people.
- 2) The way national and local governments, industry and local inhabitants deal with these challenges.
- 3) The underlying processes behind the pressures, which will reveal the effectiveness of presently applied delta management strategies.

In a final discussion the three topics will be integrated, aiming to gain a better understanding of integrated delta system functioning to further improve sustainable and resilient delta management strategies.

### **Call for abstracts**

We invite you to submit abstracts for oral or poster presentations on one of the following topics:

- 1. Challenges in deltas under pressure of population growth and changes in land use and climate*
- 2. Dealing with negative impacts of these challenges*
- 3. Natural and societal processes behind pressures and impacts in delta systems*

### **Practical information**

#### *Deadlines*

Expression of Interest (max. 250 words): 22<sup>nd</sup> of December 2014.

Extended abstract (max. 2 A4): 1<sup>st</sup> of February 2015.

Submission through the IAHR Congress website: <http://www.iahr2015.info/call-for-papers/>. First register before submission. On the website the deadline for abstract submission is 4 November, but this has been extended to 22 December 2014.

We aim to publish session's contributions and a concluding paper, based on the output of the final discussion, in a special issue of an international, peer-reviewed scientific journal (to be announced later).

For further information on this special session and funding possibilities (in special cases only!), please contact: [s.vanasselen@uu.nl](mailto:s.vanasselen@uu.nl).