## Report from Workshop about robust decision making at KTH

A workshop on the topic of "opportunities and challenges for managing deeply uncertain water-futures in the urban environment" was held on the afternoon of Thursday, 24 August 2017 in the Dome of Visions at the KTH-campus in Stockholm.

The starting point for the workshop was that new decision support methods for managing deep uncertainty have been developed and applied internationally, but experiences with these methods are still limited in many contexts. The workshop wanted particularly to discuss the question how insights from these new approaches could be used improve management of deeply uncertain water-futures in urban settings especially in Sweden.

The workshop started with presentations by invited international experts: John Matthews from the Alliance for Global Water Adaptation, USA, Eelco van Beek and Andrew Warren from Deltares, the Netherlands. Annika Carlsson-Kanyama then presented the results so far from our research program, and finally there was a panel discussion with all presenters plus Anders Rimne from the Swedish governmental agency National Board of Housing (Boverket).

The presentations by the international experts showed how new decision support approaches such as "decision-scaling" or "adaptive pathways" are highly relevant for urban settings, and provided examples where they have been applied successfully. There are also new developments to make these methods even more inclusive and useful for stakeholders, for example by using so-called "participatory modeling".

The panel discussion covered a broad spectrum of topics, including the importance of responsibilities (for example how the decision-makers and stakeholders taking the risks are often different), how to ensure institutional follow-up of long-term plans (which may be possible in mega-projects as the Delta Commission in the Netherlands but can be harder in smaller projects), and the differences in legal and political circumstances in different locations (e.g. some states in the U.S. have very different legal requirements).

In conclusion the workshop indicated that the new decision-support approaches can be very useful in urban settings, but there are often very specific contextual challenges, for example in legal systems. This suggests a need for more collaborations by experts, decision-makers and stakeholders, focused efforts to develop specific applications advancing existing approaches, and a willingness to experiment and go beyond existing standard procedures.

The workshop was arranged by Per Wikman-Svahn, who is a co-principal investigator in the research program Robust Decision Making for Managing Climate Risks in Sweden together with Zeinab Nour-Eddine Tag-Eldeen, Division of Urban and Regional Studies and Bo Olofsson, Department of Sustainable Development Environmental Science and Engineering, KTH. The workshop was arranged in collaboration with the research program Robust Decision Making for Managing Climate Risks in Sweden funded by MSB and made possible through a grant from the Bolin Centre for Climate Research.