

Contribution for Topic 3.2: Ensuring adequate water resources and storage infrastructure to meet agricultural, energy and urban needs

(www.worldwaterforum5.org)

Title of contribution

Transition Management for Urban Water Infrastructures

Description of proposed contribution

Adapting water infrastructures and water services to global change, demographic dynamics and changes in water demand is a major challenge for the future – especially in terms of sustainability and for both, emergent or developing countries as well as for developed ones. Even if points of departure differ between world regions and countries, our thesis is that there are similar ways to cope with current and future problems, which mainly call for adaptivity and resilience of water systems and infrastructures. Shaping transitions is the centre stage.

There are some good examples that show that (semi-)decentralised water technologies (like separation technologies, micro- and membrane filtration) are able to strengthen water re-use for different purposes, to empower recovery of nutrients in household wastewater for re-use in agriculture and to allow treatment of faeces and organic waste in biogas plants. Thus, these technologies may strengthen a sustainable use of scarce resources, but these water system options are scattered around the world. Nevertheless, state of the art in current urban water infrastructures is to combine central water supply with sewer systems dependent on high water flows. Although, they guarantee a certain security and comfort for (connected) users, they are very path dependent: their ability to adapt to changing conditions as induced by climate change (floods & droughts), demography (growing & shrinking cities), changed consumer behaviour etc. is limited.

Main issue of our contribution is to review possibilities and necessities as well as hindrances for transitions in urban infrastructure management in order to put problem solving potentials of new technologies into practice without disregarding questions of financing (cost recovery), ownership, water security, operational management and environmental/resource protection. We would like to take advantage of the multi-stakeholder audience at the 5th World Water Forum in order to find common grounds for reasoning and enforcing approaches for shaping transitions in urban water management and infrastructural solutions. Matter of some debate may be the role of networking and knowledge transfer as well as collective learning processes for both, partners from developing and developed regions in order to find adequate ways in infrastructural transitions. What are key elements for defining integrated and sustainable infrastructure projects?

What is the particular perspective you would bring to the debate?

The line of argument for strengthening an international dialogue on transition management bases on experiences in transdisciplinary, problem- and actor-oriented and applied research in Europe and Africa. Working together with stakeholders, administration and political bodies as well as water industry from both continents taught us that new technologies offer potentials, but main question is how to surmount existing infrastructural path dependencies in the sense of fixed and determined situations.