Communities of practice - essential ingredients in creating resilient urban water and flooding systems

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RESILIENCE IN WATER, FLOOD AND DROUGHT RISK MANAGEMENT – CONTROLLING THE UNTAMEABLE; RECONCILING URBAN PLANNING AND WATER

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Resilience in water, flood and drought risk management is strengthened by improving the threshold capacity, the coping capacity the recovery capacity and the adaptive capacity of the system. In particular urban areas are highly vulnerable to flooding, drought and heat – which is to a high degree a water shortage problem. This vulnerability of urban areas can be reduced by numerous measures, both structural and non-structural ones. A recent study came to a list of over 180 options. Some of these are meant to protect individual properties, others will provide protection to a whole town; some are taken during the phase of spatial planning, while other measures are taken relevant to the construction phase or even the maintenance phase. Our challenge is to come to an appropriate set of these measures, a set that all together provides us the protection and the resilience that we deem necessary.

Resilience is, just like sustainability, a subjective goal, hard to quantify or to monitor. Resilience can moreover be created by strengthening each of the four capacities mentioned above. Some will chose for investments in threshold capacity, while others will invest in one or more of the other capacities. Dutch flood protection policy aims at strengthening all the four, to create “meerlaags-veiligheid” (multi-layer flood safety).

The majority of the measures to strengthen resilience are to be taken at a very local scale and, even more important, by private stakeholders rather than by governmental organizations. Private stakeholders include home- and company-owners, housing corporations, public utilities, mortgage banks and insurers. Question is how to motivate these parties to take action.

In order to make private parties receptive to measures in their backyard and even behind their front door we have to involve them in the planning process. They have to see the advantage for them in order to be able to associate with a solution. Moreover, they have to acquire the skills and capabilities in order to be capable of handling and maintaining such measures at the right time and in the right way. A Community of Practice (CoP) brings parties together around a common theme, to share experiences, knowledge and skills. It provides a communication platform for practitioners and experts to work together on the improvement of tools, techniques and non-structural
measures. Essential participants in such a CoP are urban planners, designing engineers, constructors and maintenance staff; they have to combine their expertise with the tacit knowledge and the practical experience of private parties, to formulate packages of measures that are of interest for all the stakeholders.