

## Stakeholders and public involvement for flood protection: traditional river management organisations for a better consideration of local knowledge?

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This research explores participatory processes in the domain of river management in Switzerland. The main objective is to understand how traditional, highly participatory, local organisations for flood protection have been institutionalised into current river management policy, and to what extent this has impacted on wider participatory processes of producing knowledge.

Traditionally, flood protection strategies have been based upon scientific knowledge but have often ignored the capacities of local actors to contribute to the development of the policy. Thus, there may be a gap between scientists, stakeholders and the public that favours controversies and leads to opposition to flood protection projects. In order to reduce this gap and to increase incorporation of local knowledge, participatory processes are set up. They are considered as allowing the integration of all the actors concerned by flood risks to discuss their positions and to develop alternative solutions. This is a particularly important goal in the Swiss political system where direct democracy (the possibility of calling the decision of any level of government into question through a popular vote) means that a reasonable level of project acceptance is a necessary element of project.

In order to support implementation of participatory processes, federal funding includes a special grant to cover the additional costs due to these actions. It is considered that, since its introduction in 2008, this grant certainly furthered participatory processes for flood protection projects and fostered water management policy implementation.

However, the implication of stakeholders and public in decision-making processes is much well-established than modern river management often assumes. In some regions, flood protection tasks have been traditionally assumed by local organisations such as dyke corporations (DCs). These comprise land and property owners who are DC members and have to participate in flood protection tasks. All members have to pay an annual contribution and can vote about decisions taken by the corporation. In that sense, DCs may be considered as common-pool resource institutions according to Ostrom's (1990) definition (see also Thomi, 2010).

Initially, they were local and non-governmental institutions, fully responsible for flood protection in their catchment. But, progressively DCs have been institutionalised and replaced or weakened, bound to apply governmental requirements for flood protection to secure funding of their projects. The increasing complexity of water management through proliferation of norms like river restoration, but also socio-political changes make DCs struggle in delivering flood protection tasks nowadays.

Finally, this study demonstrates the effectiveness of DCs for participative decision-making and integration of local flood risk knowledge, reinforcing the conclusions by Gerber et al. (2008) that noticed the usefulness of such self-governing institutions for the implementation of environmental policies in Switzerland. The aim is to show in which way those assets have been modified by the progressive institutionalisation of DCs, and how this has led to the hybridisation of these organisations. Through this case study the factors affecting water management knowledge inclusion and co-production will be discussed, and more generally the importance of such processes for effective flood protection.

### References

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