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Why social science matters in river management: involvement of local stakeholders in monitoring the effects of room for the river measures in the Netherlands

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The Netherlands is a densely populated delta region with a long tradition in flood protection and river management. In response to climate change, adaptive measures are implemented to create more room for the river (and thus increasing water discharge capacity) while at the same time maintaining the multifunctional use of the river system. These functions include for example navigation, water supply, housing and spatial quality, nature development and recreation. The incorporation of social aspects in water management is vital for the development and implementation of sustainable solutions in environmental planning. Active stakeholder involvement has major benefits in terms of trust, public support, social learning and creative decision making. In practice, however, stakeholder involvement is often confined to one-way communication (e.g. information on websites and public hearings) instead of establishing a dialogue with the relevant local stakeholders. Moreover, stakeholders are often involved too late. Our study focusses on stakeholder perceptions and the opportunities for stakeholder participation and collaboration in river management.

One way to actively involve stakeholders and invest in a dialogue is through participatory monitoring, i.e. to involve local stakeholders in collecting, analyzing and evaluating monitoring data. Currently, a pilot engineering intervention (2013-2015) is carried out in the Waal river, i.e. the main Rhine branch in The Netherlands. This intervention comprises the substitution of traditional groynes by a 10 km longitudinal dam and will change the appearance of the fluvial landscape dramatically. An interdisciplinary team of scientists, government representatives and other public and private parties is involved in monitoring the hydrological, ecological and socio-economic effects of the longitudinal dam with the aim to develop and improve models, guidelines and tools for integrative river management. This also provides unique opportunities for stakeholder involvement. Within this project, a pilot for participatory monitoring is initiated for three important stakeholder groups: local residents, recreational anglers and boaters, and those working in the inland shipping industry. Our study aims (1) to unfold stakeholder perceptions with respect to the longitudinal dam, (2) to explore how and to what extent local stakeholders can be involved in the monitoring program and (3) to carry out a pilot project for participatory monitoring. For each stakeholder group we will discuss survey results regarding their perceptions, as well as the possibilities for participatory monitoring. In cases where involvement in monitoring is not a feasible option, we will advise on alternative forms of public participation. Overall, we stress the importance of stakeholder involvement and aim to identify optimal ways for public participation in river management.