



Nature-based flood risk management –challenges in implementing catchment-wide management concepts

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Traditionally, flood risk management focused on coping with the flow at a given point by, for example, building dikes or straightening the watercourse. Increasingly the emphasis has shifted to measures within the flood plain to delay the flow through storage. As such the fluent boundaries imposed by the behaviour of the catchment at a certain point are relocated upstream by the human intervention. Therefore, the implementation of flood storages and the use of natural retention areas are promoted as mitigation measures to support sustainable flood risk management. They aimed at reducing the effluent boundaries on the floodplain by increasing the effluent boundaries upstream. However, beyond the simple change of practices it is indeed often a question of land use change which is at stake in water management. As such, it poses the questions on how to govern both water and land to satisfy the different stakeholders. Nature-based strategies often follow with voluntary agreements, which are promoted as an alternative instrument to the traditional top-down command and control regulation. Voluntary agreements aim at bringing more efficiency, participatory and transparency in solving problems between different social groups. In natural hazard risk management voluntary agreements are now receiving high interests to complement the existing policy instruments in order to achieve the objectives the EU WFD and of the Floods Directive. This paper investigates the use of voluntary agreements as an alternative instrument to the traditional top-down command and control regulation in the implementation of flood storages in Austria. The paper provides a framework of analysis to reveal barriers and opportunities associated with such approach. The paper concludes that institution and power are the central elements to tackle for allowing the success of voluntary agreement.