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The role of 'green water' in floodplain water and landscape management

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Floodplains has a more and more recognized role in river basins, especially in region with high annual water deficit, such as the Central part of the Tisza river basin, Hungary. The former floodplain management (so called 'fok'- management) provided excellent opportunity for additional water supply and increased additional ecosystem services (harvesting nature) (Sendzimir et al., 2007). The present system suffers from several degradation processes, such as soil degradation, groundwater decline, loss of biodiversity and fragmentation of ecological networks, lower production of landscapes (Flachner, 2004).
An integrated project was initiated with several research and civic partners in the Nagykörű micro region, in Central Tisza basin. The main objective is to investigate the potential benefits of revitalization of former (now disconnected) floodplains, with special attention on the soil, water and farming processes (www. icpdr.org). In the project methodology traditional soil and ecosystem monitoring methods are combined with new social transition assessment methods to investigate potential benefits of proposed land development measures at parcel and landscape level. The involved parties realized the importance of knowledge brokerage as well, to be able to develop joined methods, to share and combine methods and results. The assessment will lead to a less vulnerable production system, and on longer time scale improved ecosystem services in the Nagykörű area.
In our paper the methodology and the expected results are presented with special focus on the role of the green water in the water budget at different scales.

References:
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