



SESSION DESCRIPTION

ID: B2b

Frontiers in Planning and Implementing Nature-based Solutions in River Landscapes

Hosts:

	Title	Name	Organisation	E-mail
Host:		Stefan Schmidt	Leibniz University Hannover	schmidt@umwelt.uni-hannover.de
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Abstract:

Many river landscapes around the world have been substantially transformed to enhance navigation, to produce energy and to enable agricultural production and settlement in former floodplain areas. While these changes have led to generally more uniform flow conditions, constant water tables and sharply defined embankments, they have given rise to several unintended challenges for society, for instance exacerbating floods, diminishing water quality and biodiversity loss. Rediscovery and reinventing nature-based solutions (NBS), i.e. activities inspired and supported by ecosystem processes to fulfill human and societal needs, are rapidly gaining popularity in science and policy. NBS promise to address challenges effectively and adaptively, simultaneously providing co-benefits for people and nature. However, substantial knowledge gaps still exist, particularly on planning and implementation practices, effectiveness and monitoring. Good practice examples are needed that showcase under which conditions NBS contribute to overcoming environmental, social and economic challenges and how such solutions can be successfully planned and realized in different contexts. Also more research and practical experimentation is needed on how to integrate different disciplines and collaborate with various stakeholders and decision-makers.

The aim of this session is to explore current frontiers of planning and implementing NBS in river landscapes. More specifically, we are interested in sharing insights and innovations regarding principles, barriers, and strategies for making NBS work in practice. Three types of contributions are sought in particular:



- i) Studies investigating the effectiveness of NBS towards ecological, social and economic outcomes. We are interested in ex-ante and ex-post evaluations of impacts of NBS, case studies and reviews of NBS benefits and costs, and comparisons between NBS and technical alternatives. Perspectives on distributional effects of NBS benefits across different actor groups are of particular interest as well.
- ii) Studies exploring opportunities for successful planning and designing NBS. Which approaches have been used in inter- and transdisciplinary efforts to identify and spatially design NBS at local and regional scales? How can different knowledge systems be integrated in NBS planning processes, and how can results from NBS analyses be communicated and mainstreamed to provide useful knowledge for relevant stakeholders?
- iii) Studies shedding light on governance and business models for implementing NBS in different governance contexts and actor constellations.

For example, how can we ensure adequate financing and funding, how can benefits and costs of NBS be distributed fairly, and how can government, civil society and business actors cooperate for NBS?

The suggested symposium is associated with two working groups. First, it relates to TWG 14 – Application of Ecosystem Services in Planning and Management. Second, the symposium will also serve as an opportunity to re-launch ESP's Biome Working Group (BWG) 2b on Rivers and Lakes.

Goals and objectives of the session:

The aim of this proposed session is to share insights and experiences regarding the assessment, planning and implementation of NBS in river landscapes. By drawing on insights from cases and reviews, the session will identify successful approaches for assessing, planning, and governing NBS in practice.

Also we aim to reactivate Working Group (BWG) 2b on Rivers and Lakes or create a new working group dealing with NBS for safeguarding and/or improvement of ES of rivers.

Planned output / Deliverables:

The outcomes of the symposium will be disseminated in the form of an edited special issue in a leading journal and/or in a joint paper, depending on the interests of participants. To enhance the immediate impact of the session outcomes, key insights from the presentations and discussions will be tweeted during the symposium itself.



The session is organized as a knowledge exchange and networking activity of the Ecosystem Services Partnership Working Group 14 – Application of Ecosystem Services in Planning and Management.

Voluntary contributions accepted:

Yes, I allow any abstract to be submitted to my session for review

Related to ESP Working Group/National Network:

[Biome working group: BWG 2B – Rivers & Lakes](#)