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Examples of Floodplain Restoration Evaluation Studies in the Danube River Basin

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Countries located in the Danube River Basin (DRB) are in danger of being affected by major catastrophic floods along the Danube and its tributaries. Floodplain restoration measures are among win-win nature-based solutions (NBS) for flood risk reduction but practitioners see their limitations in comparison to technical measures, when looking at their effectiveness and profitability. Within the framework of the EU Interreg Danube Floodplain project, this presentation shows the benefits of floodplain restoration in terms of monetized ecosystem services (ES). Our work focused on multiple ES groups for four study areas in the Danube catchment, located in Czech Republic, Romania, Serbia, and Slovenia. This was done with the help of stakeholder engagement, hydrodynamic models results, and the Toolkit for Ecosystem Service Site-Based Assessment (TESSA). Moreover, the approach was complemented with alternative methodologies (e.g. surveys on social media). Results show positive annual combined benefits of floodplain restoration measures, suggesting the helpfulness of evaluating these NBS through ES assessment. The work done will help increasing the knowledge on floodplain and their ES, and on how to rapidly evaluate them. Moreover, it will bring decision-makers further evidence in favor of floodplain restoration measures to be implemented for a general benefit of the communities.