



Universität
Basel

Upper Rhine Cluster for Sustainability Research



Template 2 for Kick-off meeting, Freiburg 07./08.10.2016



Working Title (for joint project/thematic field of cooperation)/axis 4

Integrating multiple ecosystem services into the management of polders in the Upper Rhine Region

Sketch of content:

The Upper Rhine Region (URR) has an important function of flood control in the Middle and Lower Rhine. Given the straightening of the Upper Rhine in the 19th century, over 100 square kilometres of flood plain have been lost, which greatly increased flood risk in the Middle Rhine. This trend is further exacerbated by the effects of climate change. As part of the Integrated Rhine Programme (IRP), the riparian states of France, Baden-Württemberg and Rhineland-Palatinate have taken a number of steps to create water retention areas in order to reduce downstream flooding. One key measure was the designation of polders, which are floodplains serving as natural water retention areas.

Polders may be associated with increased biodiversity and other ecosystem services. This may be the case even when they are used for low intensity agriculture. Assuming that polder planning and management are based primarily on the evaluation of flood retention capacity, this project aims to identify and evaluate ecosystem services beyond flood retention (e.g. biodiversity, GHG balance and carbon sequestration, enhanced water quality, pollination, recreational value) with a view to providing holistic information for polder management in the URR. The evaluation of ecosystem services will be done using an interdisciplinary and transboundary approach, focusing on polders under different management regimes, and using methods such as economic valuation.

Next steps

- Literature review to find research gap and most relevant areas of focus
- Research of possible funding opportunities, focusing primarily on smaller grants
- Enabler to circulate initial concept note to collect ideas on research gap, project focus and funding opportunities envisaged (e.g. ANR-DFG, D-A-CH, INTERREG Upper Rhine)
- Contact persons involved in polder planning in the URR to find out missing information
- Concept note to be elaborated and circulated
- Find French partners and consolidate working group

Responsible person - preliminary

Vacant (interim: Ines Gavrilut, enabler)

Members committed to working in the group

Dr. Henri Rueff (Uni Basel), Dr. Laura Rose (Uni Freiburg), Dr. Lena Bloemertz (Uni Basel), Prof. Dr. Martin Entling (Uni Landau), Sören Weiß (Uni Landau), Paul Averbeck (Uni Landau)

To be contacted: Prof. Dr. Barbara Koch (Uni Freiburg), Dr. Marie-Eve Reinert (EIFER), Assist. Prof. Quaranta Gaetana (Uni Strasbourg), Mathieu Schuster (Uni Strasbourg), Dr. Martin Opferkuch (Uni Freiburg), Dr.-Ing. Jérémy Rimbon (KIT), Thomas Gross (FHNW), Dr. Claire Rambeau (Uni Freiburg)