



Natural Water Retention in the Rhine basin; Research and stakeholder engagement

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Implementation of Nature-Based Solutions to tackle climate change

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Why wetlands matter

What Are Wetlands?

Home » Wetlands » What Are Wetlands?

Wetlands occur **where water meets land**. They include mangroves, peatlands and marshes, rivers and lakes, deltas, floodplains and flooded forests, rice-fields, and even coral reefs. Wetlands exist in every country and in every climatic zone, from the polar regions to the tropics, and from high altitudes to dry regions.

Since 1900 more than 64% of wetlands have been lost through drainage and conversion, and much of the rest have been degraded.



-  Prosperous communities
-  Sufficient clean water
-  Reduced disasters
-  Plentiful food and fish
-  Reduced CO₂ emissions
-  Diverse and beautiful nature

Wetlands International

Our vision and mission

Our **vision** is that of a world where wetlands are treasured and nurtured for their beauty, the life they support and the resources they provide.

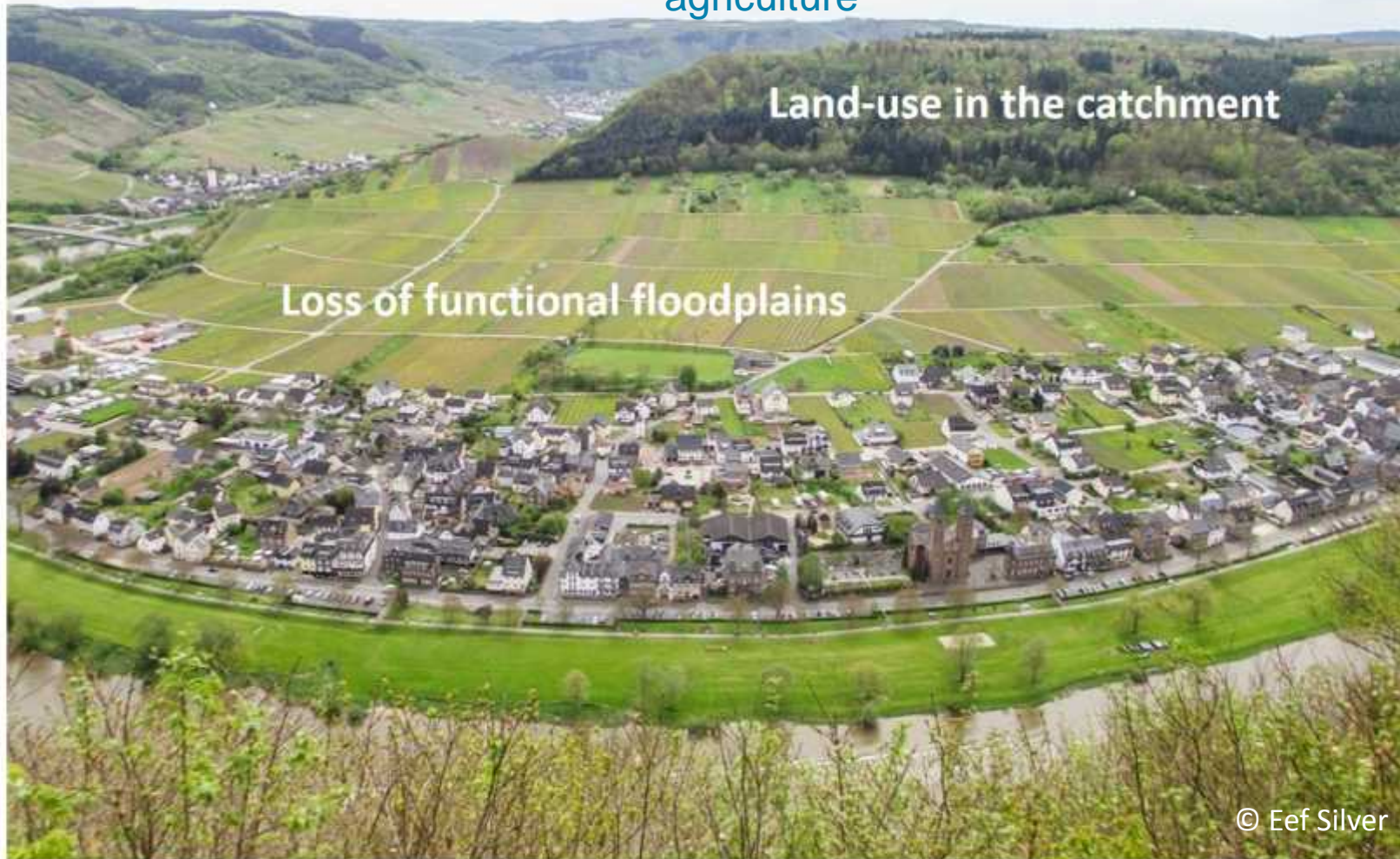
Our **mission** is to sustain and restore wetlands, their resources and biodiversity.

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Rhine basin

- 1,230 km long
- 60 million inhabitants
- 180,000 km² catchment -> 50% agriculture



Water management toolbox

A natural water system is a robust system



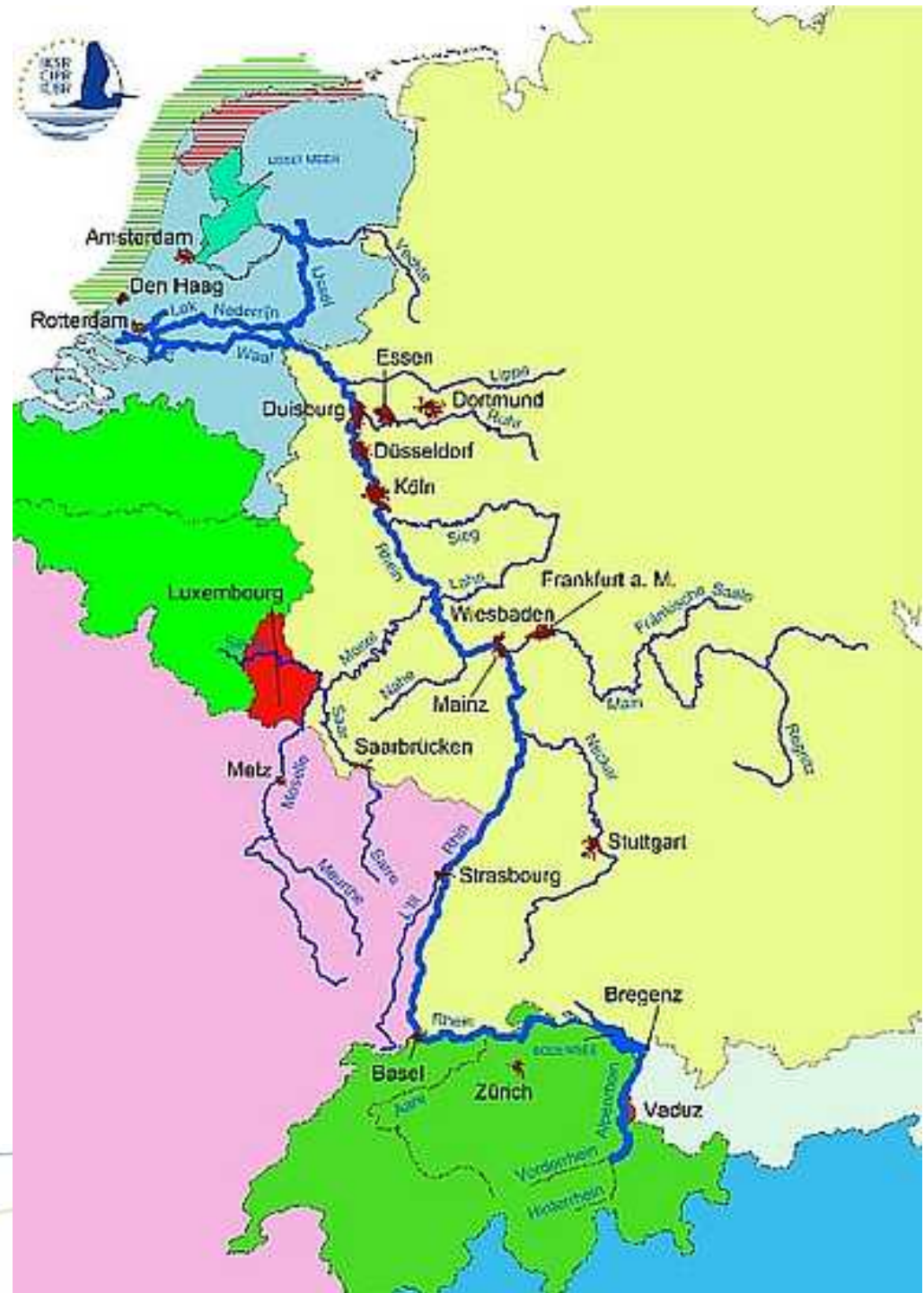
Natural Water Retention

1. Room for the River
2. Green Cities
3. Stream and floodplain restoration
4. Restoring wetlands 'sponges'
5. Converting coniferous to deciduous forest

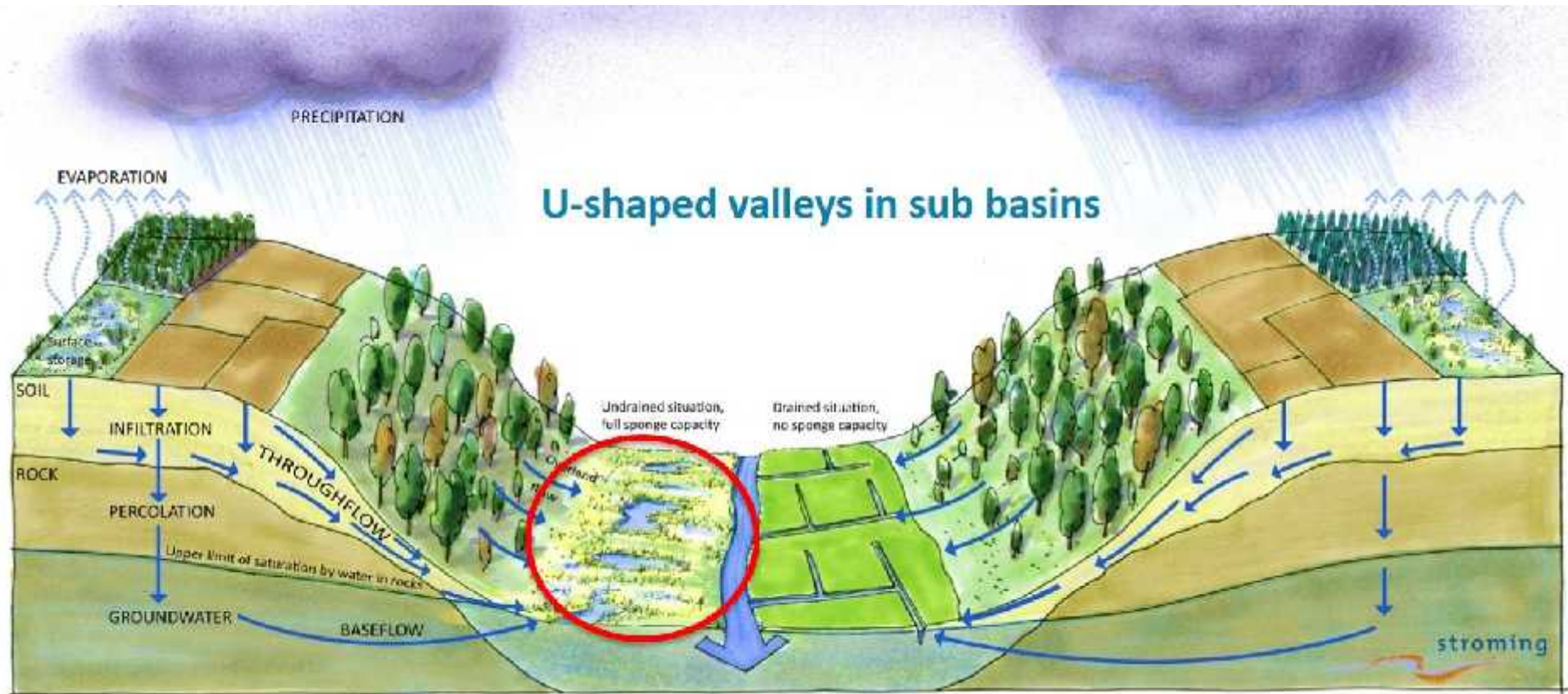


Basin approach

- Dutch NGOs promoting climate adaptation measures upstream in Germany
- Why?
 - Increase in climate risks
 - Strategic measure (high precipitation and extensive land use)
 - Cost-effectiveness
 - Additional benefits for nature and people

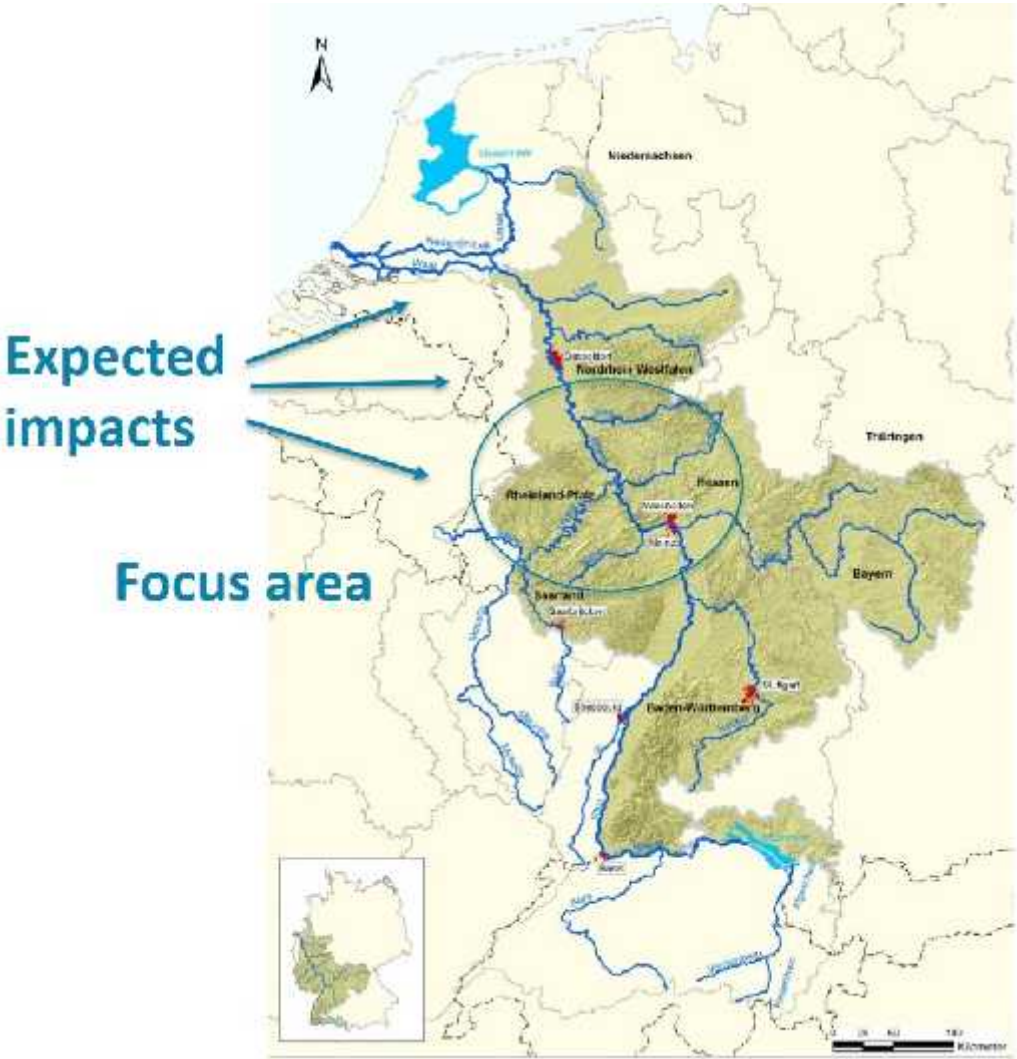


Restoration of the sponge function of drained soils



Restoring natural drainage conditions allows for peak flow reduction

Restoration of the sponge function of drained soils



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Stakeholder engagement

1. *How to communicate benefits to upstream and down stream communities – cross border and rural to urban centres*
2. *What information is need and what approach?*
3. *How to get support for Natural Water Retention Measures...*

Challenges – is there support for NWRM?

1. *Does it work?*
2. *Is there enough space?*
3. *Is it affordable?*

But:

- Challenge to convince technically-oriented water managers
- Change of land use and drainage conditions needed
 - Understanding culture and traditions related to land use
- Better data needed:
 - Area, size, costs, benefits

- Extensive agriculture
- No large connected area needed: flexibility
- Spatial measures cheaper in Germany
- Positive local and downstream benefits
- National and European Legislation

Conclusions

- Nature-based solutions: still islands in wider ocean of business as usual
- Transboundary cooperation
- Need to close the evidence gap
- Stakeholder engagement is key





Questions?

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