

RIVER AND FLOODPLAIN RESTORATION IN AUSTRIA

**Policy insights from the Lower Morava
floodplains for scaling wetland restoration
through catchment-scale approaches**



CONTEXT AND CURRENT POLICY LANDSCAPE

Since World War II, Austria has converted around 350,000 hectares of its wetlands and river landscapes to agriculture. Today, wetland conservation and restoration are supported by a comprehensive policy framework, including the EU Water Framework, Habitats and Birds Directives, the Environmental

Funding Act, and the Consolidated Federal Laws which integrates sustainability, environmental protection, water management, and land use. Climate adaptation is guided by Austria's National Adaptation Strategy, and the Common Agricultural Policy (CAP) Strategic Plan (2023–2027) promotes a more sus-

tainable and resilient agricultural sector.

Wetland restoration in Austria is largely State-funded and closely linked to river basin management. Institutions such as Via Donau coordinate major restoration projects, particularly along the Danube and Morava rivers.

WHY IS RESTORATION HARD TO SCALE?

Barriers to effective wetland restoration

Implementation gap

Despite strong policies, wetland degradation continues due to weak implementation.

Agricultural pressures

Small-scale, fragmented farming systems increase pressure on wetlands and complicate landscape-scale restoration.

Hydropower and river fragmentation

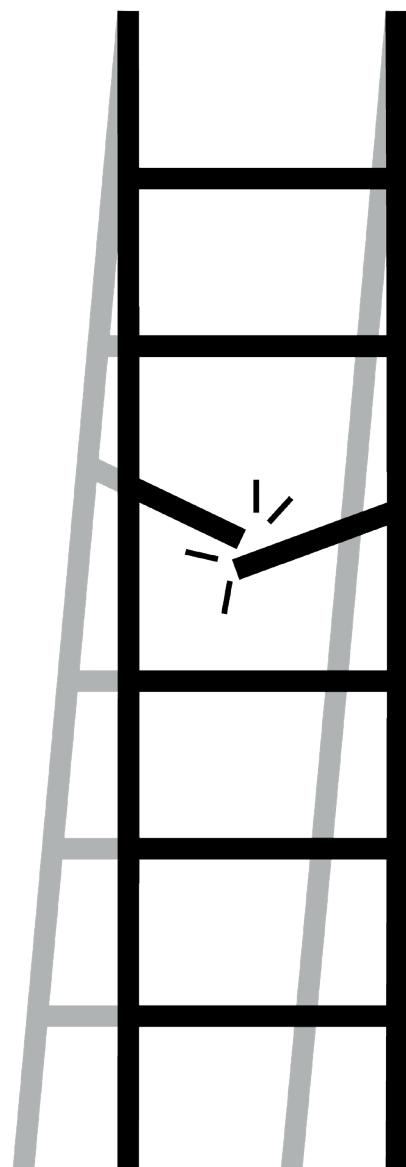
Existing and planned hydropower infrastructure disrupts river flows and floodplain dynamics.

Limited basin-scale integration

Wetlands are often managed as isolated sites rather than as part of wider catchments.

Governance conflicts

Competing local, national, and transboundary priorities, such as energy production versus ecosystem restoration, undermine coherent action.



PRIORITY POLICY MEASURES

Integrated river–floodplain restoration

Accelerating wetland restoration requires embedding wetlands and floodplains within catchment-scale planning and river basin management. Restoring natural river dynamics depends on aligning upstream and downstream activities—including hydropower and river regulation—with restoration goals. This requires stronger safeguards and

obligations for hydropower and infrastructure operators to avoid and minimise irreversible ecological damage.

Implementation of the EU Nature Restoration Regulation provides an opportunity to support this approach through a broader policy mix, including land acquisition, restoration subsidies, and conservation easements.



EVIDENCE FROM PRACTICE

Lower Morava floodplains

The Lower Morava floodplain restoration project is one of Austria's most prominent large-scale wetland restoration efforts. Historically, river regulation between the 1930s and 1980s led to the loss of natural dynamics: meanders were cut off, banks were stabilised, and connectivity between river and floodplain was severely reduced. Restoration efforts focused on re-establishing near-natural river processes, including reconnecting side arms, improving connectivity, and restoring dynamic flood regimes. These actions have enhanced habitat diversity and improved conservation status for species and habitats of European importance.

Biodiversity benefits

- Increased habitat diversity.
- Improved conservation status of species and habitats of European importance.
- Enhanced aquatic and terrestrial ecosystem functioning through restored hydrological dynamics.

Climate benefits

- Monitoring suggests dynamic floodplains can function as annual carbon sinks.
- Methane emissions vary with flooding patterns and climate conditions.



WHAT DOES THIS CASE SHOW?

Large-scale floodplain restoration is feasible when embedded within river basin management frameworks and supported by long-term public investment. Re-establishing natural river dynamics provides important benefits for biodiversity, climate regulation, and ecosystem functioning. Adaptive management based on hydrological and greenhouse gas (GHG) monitoring is essential to maximise restoration outcomes.

KEY POLICY RECOMMENDATION

Integrate wetland restoration in binding river basin management frameworks and support it through effective implementation of the EU Nature Restoration Regulation and better coordination across sectors. A key challenge is balancing hydropower development, agricultural land use, and ecosystem restoration. Effective restoration requires aligning these objectives at the catchment scale and recognising the multiple ecological, climate, and societal benefits of wetlands and rivers.

HOW TO SCALE AND ACCELERATE?

- Adopt a river basin-approach, integrating wetlands into all water and land-use decisions
- Improve policy coherence across energy, agriculture, water management, and biodiversity sectors.
- Link restoration more explicitly to climate mitigation and biodiversity targets.
- Introduce binding requirements for hydropower and infrastructure projects to minimize and compensate ecological impacts
- Expand financial instruments (CAP, national funding, Payment for Ecosystem Services schemes) to support land-use transitions and restoration
- Strengthen adaptive management through long-term hydrological and GHG monitoring.





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