



RAIN FOREST

WORK PACKAGE 4: ENABLE GOVERNANCE
FOR TRANSFORMATION

UTILISING VALUES TO PRIORITISE PEATLAND RESTORATION POLICIES AT THE NATIONAL LEVEL

RAINFOREST POLICY BRIEF
AUGUST 2025



Understand
Support
National



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horizon.eu/wp4.html



This project is funded by the European Union's
Horizon Europe research and innovation programme
under grant agreement no. 101081744.

The Importance of Peatland Restoration

Europe's peatlands are critical for climate mitigation and biodiversity as the world's most effective terrestrial carbon stores and as habitats and shelters for many endemic and migratory species. But, traditionally, the management of peatlands has focused on economic activities that produce financial returns such as crop production, livestock grazing and peat cutting for fuel that degrade peatlands. These activities negatively impact other benefits that can be derived from well-functioning peatlands such as carbon storage and sequestering, biodiversity protection, water and flood management and cultural and recreational activities. For example, the drainage and conversion of peatlands to agriculture transforms them into net sources of GHG emissions[1]. Currently in the EU, agriculture on drained peatlands accounts for the majority of the ≈ 220 Mt CO₂eq per year emitted ($\approx 5\%$ of total EU emissions) but could under modelled protection and restoration scenarios become a carbon sink[2][3].

In response to the growing awareness of the benefits of well-functioning peatlands, there have been increased efforts to restore peatlands, such as those part of the EU LIFE Programme, and the inclusion of peatland restoration targets in key EU regulations, such as the highly contested EU Nature Restoration Law and the Good Agricultural and Environmental Condition (GAEC) 2 as part of the Common Agricultural Policy (CAP) 2023-2027. While these policies signal a strong commitment, a significant implementation deficit persists.

Understanding Values Can Support Prioritisation of National Policies

In the IPBES (2022) Assessment Report on the Diverse Values and Valuation of Nature, values and worldviews are identified as "deep leverage points" that increase the effectiveness and stability of policy interventions because they impact policy acceptability through their adherence to stakeholder worldviews and values [4]. A key development to the utilisation of worldviews as a leverage point to improve the viability of policy pathways is the understanding of the importance of justice preferences because the perceived fairness of policies is key to their acceptability.

Policy competition analysis within peatland restoration highlights the conflicting interests and differing approaches among stakeholders—such as conservation groups, local communities, and largescale landowners — regarding the methods and goals of restoration. These conflicts are shaped by diverse perspectives on what constitutes a "problem" and a "solution" for peatland degradation, influenced by values of nature, justice preferences and economic interests, which can hinder policy consensus and effective implementation. Understanding these competing policy visions is crucial for developing integrated governance approaches that can achieve successful, long-term peatland restoration.

During this research project, we identified three key barriers to peatland restoration at the national and subnational levels through stakeholder interviews, document reviews in comparative study between Ireland and Austria.

Three Key Barriers to Peatland Restoration



Information Costs and Peatland Mapping

For stakeholders, such as conservation NGOs and government bodies, that have high instrumental valuation of nature in the form of meeting environmental objectives such as carbon sequestration and increasing biodiversity, the key identified barrier was information costs and peatland mapping. As Ireland's CAP interventions state, they are governed by a principle of: 'Right action in the right place' where the location and suitability of interventions is regarded as a key factor. To be able to implement this appropriately for peatland restoration it is necessary to know the location of peatland including its current status (depth of peat and height of the water table), the climate impact on long term viability, and current usage and commercial viability. This information is currently not available to be able to make accurate evaluations of the best sites to invest in restoration measures in either Ireland or Austria to maximise environmental benefits.

These stakeholders were also inclined toward expert-led decision making and a top down regulatory approaches to promote change and so the policy preferences were towards greater regulatory protection of intact peatland to stop

any further degradation and loss of ecosystem services and towards traditional conservation methods such as protected areas to create wet wilderness.



Investment Cycle and Valuation of Ecosystem Services

For stakeholders, such as landowner lobbies, that have a high instrumental valuation of nature in the form of commercial value extraction, the key issue identified was the valuation of ecosystem services. As most often ecosystem services provided by intact peatlands are considered a public good their preservation is funded by government bodies that set the value of this good. The issue identified by many of the stakeholders, that were currently engaged in the commercial exploitation of peatlands, was that the current value given by governments for ecosystem services was too low to promote restoration of peatlands and that the funding given was not reliable enough to warrant the investment needed for the restoration activities. To gain support from owners of commercially exploited peatlands required a higher valuation of ecosystem services with longer time horizon guarantees to make the necessary investments feasible.

These stakeholders held preferences towards market mechanisms and towards ownership and sovereign land rights.



Historical National Policy and Path Dependency

For stakeholders, such as smallholders and family farmers, that highly regard the importance of local culture in the valuation of peatland as central to more sustainable land uses and are critical of purely instrumental valuations and was accompanied with low regard for the autonomy of nature, preferring managed landscapes, the key barrier was identified as the historic policies and local culture that had created a path dependency for peatland management.

For peatlands in Ireland and Austria, and the majority of Europe until quite recently, peatland policies have focused on the drainage and creation of commercially exploitable land. These policies have created valuations of peatland that prioritise the extraction of private utility at the expense of public goods from ecosystem services that are provided by intact peatlands. This has led to perceptions of undrained peatlands as unproductive and even as sites of public bads such as disease outbreaks. This requires a both educational resources and appropriate public funding to change the view of intact peatlands.

These stakeholders tend towards high levels of participation in decision-making with local people and high levels of concern for local development and the protection of vulnerable groups.

Recommendations

- **For the information Costs and Peatland Mapping barrier, policymakers should prioritise data collection and accuracy to support funding allocation.**

By focusing on reducing information costs to effective protection measures this can increase the efficiency of funding allocations to gain desired benefits such as carbon sequestration and biodiversity protection. This should be done via remote sensing, statistical modelling and ground truthing, via landowner reporting and ecological studies.

This would align with stakeholder preferences for expert-led decision-making that focuses on meeting environmental objectives via scientific management. This could, also, be aligned with mandatory targets for restoration as long as they were specifically targeted at state, semi-state and non-commercially exploited peatlands to reduce opposition from other stakeholders.

- **For the Investment Cycle and Valuation of Ecosystem Services barrier, policymakers should prioritise establishing a framework for clear rules on additionality, quantification, (hydrological) monitoring and auditing for nature credits.**

To promote voluntary engagement, which is integral to the values of this pathway, it is necessary to create a well-established and long-term market for payments for ecosystem services, such as nature credits, that utilises private sector funding. Without these long-term structures landowners will not be incentivised to restore their land as current drained commercial activities will be considered a safer investment.

- **For the Historical National Policy and Path Dependency barrier, policymakers should prioritise local community knowledge and awareness via demonstration sites.**

Additional support for local initiatives that spread knowledge and awareness of peatland restoration measures within local contexts are necessary to allay fears held about “rewetting”, e.g. via demonstration sites.

This would, also, align to stakeholders with preferences towards more voluntary and local decision making and for those that have preferences for managed landscapes which is common among the farming community.

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ABOUT RAINFOREST HEU

Food and biomass production systems are among the most prominent drivers of biodiversity loss worldwide. Halting and reversing the loss of biodiversity therefore requires transformative change of food and biomass systems, addressing the nexus of agricultural production, processing and transport, retailing, consumer preferences and diets, as well as investment, climate action and ecosystem conservation and restoration. The RAINFOREST project will contribute to enabling, upscaling and accelerating transformative change to reduce biodiversity impacts of major food and biomass value chains. Together with stakeholders, we will co-develop and evaluate just and viable transformative change pathways and interventions. We will identify stakeholder preferences for a range of policy and technology-based solutions, as well as governance enablers, for more sustainable food and biomass value chains. We will then evaluate these pathways and solutions using a novel combination of integrated assessment modelling, input-output modelling and life cycle assessment, based on case studies in various stages of the nexus, at different spatial scales and organizational levels. This coproduction approach enables the identification and evaluation of just and viable transformative change leverage points, levers and their impacts for conserving biodiversity (SDGs 12, 14-15) that minimize trade-offs with targets related to climate (SDG13) and socioeconomic developments (SDGs 1-3). We will elucidate leverage points, impacts, and obstacles for transformative change and provide concrete and actionable recommendations for transformative change for consumers, producers, investors, and policymakers.

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