

PRIORITISING WETLAND CONSERVATION AND RESTORATION IN EUROPE

United voices for more policy impact

JULY 2026

Photo: Restored spruce swamp on the edge of a raised bog in southern Finland - 15 years after restoration, trees persist and Sphagnum has returned, showing a rare success in challenging mire-edge recovery © Tuula Larmola, Luke



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Date of publication

July 2026

Authors

Hannah Porada (REWET), Caspar Verwer (REWET), Mark van der Wal (REWET), Mark S. Reed (WET HORIZONS; ForPeat), María Hurtado (REWET; ForPeat), Pilar Perez (REWET, ALFAwetlands), Emmi Haltia (ALFAwetlands), Iryna Shchoka (ALFAwetlands), Jan Peters (ALFAwetlands), Maria Tengö (ALFAwetlands), Marie Lorenz (ALFAwetlands), Tuula Larmola (ALFAwetlands; ForPeat), Liisa Ukonmaanaho (ALFAwetlands; ForPeat), Maria del Mar Otero (Restore4Cs, Wetland4Change), Antonio Camacho (Restore4Cs, Wetland4Change), Eleftheria Kampa (Restore4Cs), Christoph Schröder (Restore4Cs, Wetland4Change), Wojciech Mroz (Palus Demos), Niall O'Brolchain (Palus Demos), Louise Holden (Palus Demos)

Editors

Hannah Porada (IUCN NL), Caspar Verwer (IUCN NL), Mark van der Wal (IUCN NL), Mark S. Reed (SRUC)

Layout

Daphne van Heuvel (IUCN NL)

Contact

Hannah Porada (IUCN NL) hannah.porada@iucn.nl and Caspar Verwer (IUCN NL) caspar.verwer@iucn.nl

Paper led by  IUCN National Committee of The Netherlands

This project is funded by the European Union. The projects REWET, WET HORIZONS, ALFAwetlands, Restore4Cs, ForPeat, and Palus Demos have been funded through the Horizon Europe programme and Wetland4Change through the Interreg Euro-Med programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor the granting authority can be held responsible for them.







EXECUTIVE SUMMARY

Wetlands are critical ecosystems that provide a wide range of benefits to both the environment and society. Despite their importance, wetlands across Europe continue to be degraded due to reclamations, drainage, land-use change, and climate pressures. This degradation drives biodiversity loss, turns wetlands from carbon sinks into sources of greenhouse gas emissions, exacerbates water-related challenges, and leads to long-term social and economic costs, thereby undermining the achievement of EU environmental and sustainability objectives.

The current EU policy landscape offers a significant opportunity to address these challenges. Instruments like the Nature Restoration Regulation, Water Framework Directive, Common Agricultural Policy, and LULUCF Regulation provide a framework for advancing large-scale wetland conservation and restoration. However, implementation remains constrained by structural challenges, including fragmented governance, misaligned incentives, financing gaps, limited technical capacity, and insufficient participation of affected groups.

Drawing on evidence gathered from the EU funded projects, including REWET, WET HORIZONS, ALFAwetlands, Restore4Cs, ForPeat, Interreg Wetland4Change, and Palus Demos, it identifies four priority areas for policy action:

-  **1 Improving policy coherence across sectors**
-  **2 Mobilising public and private financing**
-  **3 Enabling landscape scale implementation**
-  **4 Strengthening monitoring systems and stakeholder participation**

Addressing these priorities can accelerate restoration efforts and ensure that wetlands effectively support EU climate, biodiversity, and water policy objectives.

ACRONYMS

| | |
|----------------|--|
| CAP | Common Agricultural Policy |
| CRCF | Carbon Removals and Carbon Farming Regulation |
| EU ETS | European Union Emissions Trading System |
| GHG | Greenhouse gas |
| ICVCM | Integrity Council for the Voluntary Carbon Market |
| IPBES | Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services |
| IPCC | Intergovernmental Panel on Climate Change |
| IUCN NL | International Union for the Conservation of Nature - National Committee of The Netherlands |
| LULUCF | Land Use, Land Use Change and Forestry |
| MRV | Monitoring, Reporting and Verification |
| NRP | National Restoration Plans |
| NRR | Nature Restoration Regulation |
| SEEA EA | System of Environmental-Economic Accounting - Ecosystem Accounting |
| WFD | Water Framework Directive |

THE IMPORTANCE OF ACCELERATING WETLAND CONSERVATION AND RESTORATION IN EUROPE

This paper synthesizes policy recommendations and practical lessons for wetland conservation and restoration in Europe. Drawing on evidence and experiences from multiple projects and wetland types across Europe, it highlights where current policy instruments enable effective action and where targeted adjustments are needed to accelerate progress.

The policy proposals in the paper align with several **policy opportunities on the EU level**, including:

- The revision of the Water Framework Directive (WFD) in 2026, which represents a critical opportunity to better integrate wetland conservation and restoration within water governance objectives.^[1]
- Additional opportunities exist to shape and optimize the drafting of National Restoration Plans (NRPs) under the Nature Restoration Regulation (NRR), as well as Member States' Strategic Plans under the Common Agricultural Policy (CAP).
- Review of the forthcoming stress test of the Habitats and Birds Directives.
- Member States' legally binding 2030-targets under the Regulation on land use, land use change, and forestry (LULUCF) provide a pathway for reducing land-sector emissions and increasing net removals through peatland and wetland restoration.
- Leveraging this work via nature markets and alignment with the new EU Carbon Removals and Carbon Farming Regulation (CRCF).
- Alignment with global biodiversity and climate frameworks, including the restoration targets of the Kunming–Montreal Global Biodiversity Framework under the Convention on Biological Diversity, and science-based guidance from the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) and the Intergovernmental Panel on Climate Change (IPCC) in support of the Paris Agreement.

Wetlands are among the most valuable ecosystems in Europe, with a wide range of benefits for both the environment and society¹. When well-preserved or restored, they support water purification, flood regulation, carbon storage, coastal protection, and sediment retention, while supporting biodiversity, including numerous endangered and migratory species^{1,2,3}, and even supplying food and biomaterials^{4,5}. Spanning diverse habitats, from coastal marshes and river floodplains to peatlands, wetlands thus function as critical natural infrastructure. They also have profound cultural and socio-economic value for small-scale fisheries, recreation, cultural heritage, and local livelihoods.

At the same time, **wetlands in Europe face systemic degradation** driven by drainage, infrastructure development, and climate change. Between 2000 and 2018, Europe saw a net loss of 449 km² of wetlands⁶, including a number of significant localized losses. These degraded and vanishing wetlands represent a particularly acute problem for Europe because they are becoming significant sources of greenhouse gas (GHG) emissions^{7,8,9}, undermining Europe's climate commitments at a time when mitigation ambition needs to accelerate¹⁰. Degraded wetlands also pose severe systemic risks by accelerating biodiversity loss, reducing resilience to extreme weather events such as floods and droughts, and weakening critical ecosystem functions essential for human and environmental security.

^[1] For example, the reopening of the WFD, and a possible relaxation of its requirements, creates significant risks for wetlands, which depend on strong, legally binding water protection standards. As the WFD has been instrumental in preventing the degradation of Europe's freshwater ecosystems and safeguarding wetlands' ecological functions, there are concerns that a lowering of ambitions in reaching good ecological status or additional exemptions, could lead to higher pollution levels, habitat loss, and reduced water resilience.

WETLAND POLICY CHALLENGES

Wetlands provide an opportunity for both the European Union and its Member States to advance large-scale nature restoration in support of climate and biodiversity objectives. The EU policy landscape is placing emphasis on ecosystem restoration across the legislative frameworks reviewed in the previous section. **However, there are four fundamental challenges that hinder the effective translation of EU-level ambition into coherent, effective, and socially viable action on the ground.**

1. GOVERNANCE FRAGMENTATION AND POLICY INCOHERENCE

Implementation is constrained by fragmented governance and incoherent policy across sectors. Agricultural support systems under the CAP and land-use incentives in some Member States often incentivise drainage and intensive use of wetlands, creating tensions with restoration and climate objectives^{11,12}. Obligations under the NRR, WFD, Birds and Habitats Directives, and LULUCF are implemented through separate governance channels with limited coordination, reinforcing policy fragmentation.

This governance complexity is compounded by administrative and permitting barriers. Restoration projects require approvals from multiple environmental, water, agricultural, and spatial planning authorities, increasing transaction costs, extending implementation timelines, and discouraging both public and private investment in restoration¹³.

In addition, degraded, drained, or transitional wetland ecosystems such as coastal wetlands are often excluded from formal definitions of wetlands, making them ineligible for protections and financing mechanisms, including ecosystem service markets, that could otherwise help conserve or restore them^{14,15}.



Photo: Co-creation in Upper Peene Valley, Germany - Landscape walk in May 2024 with local stakeholders © Marie Lorenz

2. FINANCING GAPS

Constrained public budgets continue to pose a challenge for scaling wetland restoration. Restoration requires substantial upfront investment as well as long-term support for maintenance and monitoring. To address this, private finance is increasingly seen as a complementary source, although its role remains debated in terms of environmental integrity, additionality, and the balance between public and private responsibility. However, high upfront costs, long payback periods, uncertain revenues, and monitoring costs often deter investment.

The EU is increasingly integrating market-based instruments into its environmental policy framework. The CRCF provides a legal basis to mobilise private investment in ecosystem restoration. However, it currently applies mainly to peatlands and organic soils, creating a financing gap for other wetland types.

Beyond carbon there are limited markets for most of the other benefits wetlands provide such as flood regulation, water purification, and biodiversity. The lack of demand for these other ecosystem services limits the viability of projects without strong carbon revenues, limiting the range of co-benefits prioritised in the design of privately financed restoration projects^{16,17}.

Financial and cultural barriers continue to limit landowner engagement, particularly in agricultural peatland systems. Coastal wetlands face additional challenges, as they are mainly governed by public authorities rather than private landowners, requiring different financing approaches. In both contexts, barriers include compensation levels, incentive design, and the availability of risk-sharing mechanisms. However, evidence shows many landowners are willing to engage when enabling conditions and fair incentives are in place¹⁸.

3. IMPLEMENTATION AND MONITORING CAPACITY

Many landowners, farmers, and local authorities lack sufficient knowledge and technical advisory support to implement restoration effectively. This includes guidance on hydrological restoration design, business models, and the risks and benefits of engaging with emerging financing instruments. In addition, local communities often require targeted capacity-building, training, and knowledge exchange opportunities to enable informed decision-making, long-term stewardship, and successful adoption of restoration practices.

The effectiveness of restoration policies is further constrained by inconsistent monitoring approaches and limited harmonisation of ecosystem condition assessments across Member States. Differences in methodologies reduce comparability of outcomes and complicate both compliance reporting and investment decision-making¹⁹.

Similarly, the integration of wetland emissions and condition data into national GHG inventories remains uneven, limiting the accuracy and consistency of climate accounting. Alignment with emerging ecosystem accounting frameworks is increasingly seen as critical to address this gap^{20,21}.



Photo: Ylipääsuu Nature Reserve, Finland © KNEIA S.L.

4. SOCIAL ACCEPTANCE AND PARTICIPATION

To ensure long-term inclusion and support from land users, local communities, and the wider public, competing interests at catchment and watershed scales must be reconciled. Wetlands are often highly valued landscapes for recreation, cultural identity, and local well-being. As a result, restoration can play an important role in strengthening public awareness of the interdependence between ecosystems and human well-being.

However, if restoration is to contribute to a just transition, attention must be given to its social impacts, particularly on marginalised groups and resource-dependent communities. This is also relevant in the context of the NRR, which requires Member States to ensure public participation in the development of NRPs and to address local community needs.

Current approaches often insufficiently address who participates in restoration design, who bears the risks of land and water-use transitions, and how benefits are distributed. Limited engagement and insufficient benefit- and cost-sharing can undermine legitimacy and may result in resistance from local groups, thereby weakening implementation and social acceptance.



Photo: Ylpässuo Nature Reserve, Finland © KNEIA S.L.

FINLAND: LARGE-SCALE AND CONCERTED EFFORTS TO RESTORE PRECIOUS PEATLANDS

Finland's Helmi Habitats Programme (2021–2030), led jointly by the Ministries of the Environment and of Agriculture and Forestry, aims to improve habitat quality for endangered ecosystems and species while delivering climate mitigation and adaptation benefits.

Peatlands, covering around 30% of Finland's land area, are a central focus. Helmi aims to protect 59,300 hectares of peatlands by 2030. The programme thus makes restoration a strategic public investment seeking long-term ecological and socio-economic returns. The focus on **large-scale restoration of wetlands and mires**, including the restoration of tens of thousands of hectares of degraded peatlands and rehabilitation of hundreds of wetlands and small water bodies both inside and outside protected areas, has now been implemented for five years in which it supported the restoration of 24,000 hectares.

The programme is based on voluntary participation by landowners and combines restoration with research, communication, and local cooperation through a comprehensive package of measures. **Spatial prioritisation is a key feature**, targeting restoration in high-value ecological areas. This approach enables the efficient use of public resources and higher climate and biodiversity returns.

Restoration is implemented through collaboration between regional agencies (Elinvoimakeskus), Forest Centres, and the state-owned enterprise Metsähallitus, ensuring coordinated delivery across governance levels and supporting implementation on both private and public land. This way the programme demonstrates how **alignment between governing bodies can reduce fragmentation** between biodiversity, agriculture, and climate policy objectives.



Photo: Field measurements in the Ylpässuo Nature Reserve, Finland © KNEIA S.L.

The Helmi Programme also links restoration to emerging financing approaches. The establishment of the Nature Financing on the Move network recognises that **public funding alone is insufficient**. New financing mechanisms are needed to scale restoration, including private sector engagement.

The Helmi goals are also supported through the national Priondiversity LIFE project (2024–2031), with €50 million funding of which 60% stem from the EU. The project includes restoration actions, capacity building, research, data management, and policy coherence activities. This demonstrates how **EU funding instruments are needed to complement national implementation capacity**.

This case shows that large-scale peatland restoration can be accelerated through coordinated multi-level governance, landowner engagement, spatial prioritisation, and public-private financing.

GERMANY: FROM RESTORATION BARRIERS TO OPPORTUNITIES IN THE UPPER PEENE VALLEY

The Upper Peene Valley in the German Northeastern state of Mecklenburg-Western Pomerania is one of the largest contiguous fen landscapes in Central Europe. The region contains approximately 15,000 hectares of fens, half of which are deeply drained and used for agriculture (i.e., as hay meadows and pastures). This drainage-based land use leads to significant greenhouse gas emissions, peat subsidence, and biodiversity loss.

The valley serves as a Living Lab under the [ALFAwetlands](#) project and highlights structural barriers to restoration. They include limited financial incentives, fragmented land ownership, and the need for consensus among multiple stakeholders operating within hydrological units. This illustrates how **wetland restoration requires governance at landscape and catchment scale rather than parcel-level intervention**, informing EU-level recommendations on integrated river basin planning.

A participatory process brings together farmers, landowners, municipalities, water boards, and conservation authorities since 2019. Participatory dialogue formats such as landscape walks²², workshops and field excursions in the project [MOOReturn](#) continue to bring together local actors. This approach has strengthened trust and enabled a shared problem understanding among actors, highlighting **how long-term participation is crucial in effective restoration initiatives**. The co-creative process has now been expanded to include spatial planning for rewetting and paludiculture, as well as economic feasibility assessments.

The development of infrastructure for biomass processing and paludiculture value chains is another key development. Collaboration with the “[toMOORow](#) Initiative” and the “Alliance of Pioneers” illustrates how **emerging bio-based value chains can make rewetted wetlands economically viable**. For example, the German retail company OTTO has committed to using packaging materials containing up to 20% paludiculture biomass by 2027, demonstrating how corporate supply chains can support wetland restoration at scale.

This case shows that restoration can be accelerated when participatory governance, integrated spatial planning and the development of sustainable regional value chains come together.



Photo: Co-creation in Upper Peene Valley, Germany - Landscape walk in May 2024 with local stakeholders © Marie Lorenz

SPAIN: CLIMATE CHANGE MITIGATION AND HYDROLOGICAL MANAGEMENT IN MEDITERRANEAN WETLANDS

The Spanish Strategic Plan for Wetlands (2030), supported by EU recovery funds and the LIFE Programme, aims to restore over 26,000 hectares of degraded wetlands. This represents a large-scale policy commitment linking wetland restoration to national climate and water resilience objectives.

Restoration interventions, including rewetting, were analysed as part of Restore4Cs across several EU countries and LIFE Wetlands4Climate project in Spain. The analysis aimed to understand the role of hydrological dynamics in shaping GHG emissions across different wetland types in the Iberian Peninsula and other European regions^{23,24}.

Hydrological regimes, interacting with salinity and oxygenation, strongly determine the magnitude and variability of CO₂ and CH₄ emissions, with significant differences between freshwater systems, saline wetlands, and managed coastal marshes. Though common, wetland restoration may not always reduce GHG emissions. The outcome depends on the type of wetland, the type of alteration, and the restoration actions.

The results underline that wetland restoration cannot rely on uniform approaches but must be tailored to site-specific ecohydrological conditions. This underlines the need to strengthen monitoring, reporting, and verification (MRV) systems and improving ecosystem condition assessments within EU policy frameworks. The generated knowledge has been disseminated to support the co-development of restoration strategies across Atlantic, Mediterranean, Baltic, and Black Sea regions.

This case shows that **wetland restoration can deliver climate mitigation when hydrological management is tailored to site-specific conditions and supported by robust science-based monitoring frameworks.**



Photo: Fieldwork in the Marjal dels Moros coastal wetland in València, Spain. The researchers measure GHG emissions, carbon cycling, water quality and biodiversity to understand how wetland restoration can enhance climate mitigation and ecosystem resilience in coastal wetlands © Restore4Cs project.

POLICY RECOMMENDATIONS

Despite policy ambition and the urgency of wetland conservation and restoration, effective and large-scale implementation across Europe remains limited. The evidence presented in this paper and the accompanying case studies demonstrates that the barriers are primarily structural: fragmented governance, misaligned incentives, insufficient financing, uneven implementation capacity, gaps in monitoring, and insufficient participation and social legitimacy^{25,26}. **Four policy priorities have emerged, to enable systemic wetland conservation and restoration progress across Europe.**



1 ALIGN REGULATION AND INCENTIVES ACROSS EU POLICY FRAMEWORKS

The case studies from Finland (page 7) and Germany (page 8) show that successful restoration requires coordinated governance across sectors and scales. In reality, wetland restoration remains constrained by fragmented governance and conflicting incentives across agricultural, climate, biodiversity and water policies.

EU-level actions



- Mainstream wetland restoration targets under the NRR into CAP eco-schemes and agri-environmental measures, ensuring coherence between biodiversity and agricultural incentives.
- Phase out Member State CAP incentives that indirectly support drainage and intensive agricultural use of peatlands and wetlands, notably area-based direct payments^{11,12}.
- Align NRPs with the EU CRCF, the LULUCF Regulation and climate adaptation strategies to strengthen the role of wetlands as carbon sinks and climate resilience measures and exploit private financing opportunities where appropriate^{26,27}
- Update and enact EU guidance for integrating peatland, coastal wetlands and fluvial rewetting into River Basin Management Plans under the WFD²⁸.
- Ensure that standardised wetland definitions are embedded in EU and national legislation, including coastal wetlands and degraded and drained wetlands that no longer meet conventional classifications but urgently require restoration.

Member State and regional actions



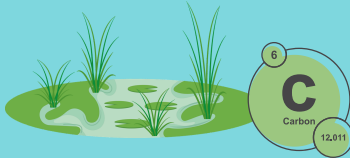
- Design national strategies for conservation and restoration of wetlands, consistent with the NRR, WFD and Birds and Habitats Directives.
- Monitor the progress of implementation from the different policies.
- Integrate appropriate measures to achieve wetland restoration targets into CAP Strategic Plans and NRPs.
- Remove national legislation, subsidies and incentives that continue to encourage drainage and land-use intensification in wetlands.
- Establish cross-sector coordination mechanisms linking agriculture, climate, biodiversity and water authorities to simplify and accelerate restoration processes.
- Develop guidance for coordinated wetland restoration permitting, including national or regional “one-stop shop” permitting systems, to streamline approvals across relevant authorities¹³.



2 MOBILISE LARGE-SCALE RESTORATION FINANCE AND ECONOMIC INCENTIVES

Wetland restoration is a strategic investment in climate resilience, water security and avoided future economic losses. However, across Europe, governments have not committed sufficient public funding to meet the targets set by the NRR. Wetland restoration at scale requires long-term financing mechanisms that support implementation, monitoring, maintenance and a just transition of the land use sector to more sustainable ways of managing peatlands. Well-designed markets can support restoration while limiting additional costs to taxpayers. On the other hand, poorly designed markets can enable greenwashing, double counting and non-additional credits, while creating risks for nature and local communities where governance, verification, transparency and safeguards are weak¹⁷.

EU-level actions



- Establish EU-wide integrity criteria for wetland carbon and biodiversity markets under the CRCF, including robust MRV protocols, clear permanence requirements and transparency standards^{29,30}.
- Support the scalable development of blended finance mechanisms combining EU and national public funding with private capital to de-risk restoration projects with high-upfront-cost and long-payback for private investors^{13,31}.
- Establish regulatory and certification frameworks that allow wetland restoration projects to generate ecosystem service credits beyond carbon (e.g., flood regulation, biodiversity and water quality).
- Explore the long-term feasibility of integrating peatlands and other wetland types into the EU Emissions Trading System (EU ETS) or the introduction of a dedicated land-use emissions pricing mechanism to incentivise restoration¹¹.
- Strengthen EU financial and regulatory support for wet agriculture (i.e., paludiculture) and appropriate forestry on rewetted peatlands, and wetland biomass value chains in sectors such as construction, insulation, packaging and bio-based materials.

Member State and regional actions



- Investigate the potential to develop domestic voluntary carbon markets for peatland restoration, drawing on experience from the UK, Germany and Netherlands, versus substantially increasing public funding, for example drawing on experience from Denmark's Tripartite Agreement.
- Develop national restoration regulatory and financing strategies that combine public funding with private investment to decarbonise supply chains that source products from wetlands (e.g., agriculture on drained peatlands) or offset residual emissions via voluntary markets for carbon, water and biodiversity. These strategies must be tailored to the specific jurisdictional realities of both terrestrial private properties and public coastal or maritime domains.
- Support and expand results-based payment agri-environment schemes (e.g. verified water table elevation, reduced GHG emissions, enhanced biodiversity indices), ensuring their design does not crowd out decarbonisation and offsetting projects that need to demonstrate that their funding led to additional outcomes that would not otherwise have happened.
- Support local financial intermediaries and advisory services that help local landowners, local managers, resource users, and other stakeholders evaluate and access restoration finance.



3

ENABLE LANDSCAPE-SCALE IMPLEMENTATION AND VIABLE LAND-USE TRANSITIONS

A key barrier to effective restoration is the mismatch between ecological processes and administrative governance. While wetlands operate at catchment scale, policy implementation is often fragmented across jurisdictions. To ensure coherent and long-term restoration outcomes, governance models must shift away from isolated, small-scale projects and move toward unified river basin and/or coastal zone management frameworks.

EU-level actions



- Prioritize funding and regulatory support for the restoration of peatlands, floodplains and coastal wetlands that provide the highest combined climate mitigation and adaptation, biodiversity, and water regulation benefits.
- Expand and strengthen EU LIFE and Interreg programmes as key funding mechanisms for restoration at site and landscape levels, to provide sufficient resources for scaling up conservation and accelerating wetland restoration across Member States.
- Support restoration at catchment-scale and hydrologically connected approaches rather than isolated site-based interventions by favouring integrated river basin and delta-wide planning³².
- Expand EU support for demonstration projects and inclusive participatory platforms for knowledge exchange, peer-to-peer learning, and joint action across sectors and actor groups.
- Support integration of wetland restoration into corporate supply-chain decarbonisation strategies by harmonising the treatment of peatlands in the Science-Based Targets Initiative with CRCF, so verified peatland rewetting and restoration of drained organic soils are treated consistently as active abatement, whether within Scope 3 FLAG inventories or, where outside value chains, in a bounded share of neutralisation³³.

Member State and regional actions



- Establish or strengthen river basin, landscape and integrated coastal zone management platforms to coordinate planning, funding and implementation, for example via privately funded platforms like Landscape Enterprise Networks and publicly funded capacity-building initiatives like Scotland's Regional Land Use Partnerships, to facilitate transitions that retain agricultural production and cultural heritage whilst reducing emissions and restoring nature^{17,34}.
- Support co-creation processes that integrate scientific, local and practitioner knowledge to design restoration pathways that are feasible for landowners and farmers³⁵. This includes expanding advisory services, technical guidance and capacity-building for farmers, landowner and local authorities.
- Promote flexible restoration pathways that protect farmer choice, including full restoration to semi-natural habitats in marginal or flood-prone areas¹⁰, and transition to paludiculture and wet agriculture systems.



4 BUILD SOCIAL LEGITIMACY, SCIENTIFIC CREDIBILITY AND MONITORING CAPACITY

Despite their ecological significance, wetlands often suffer from limited public support and insufficient understanding of their importance, which constrains policy implementation and long-term investment. Public trust, scientific legitimacy and effective monitoring systems are essential for long-term restoration success, political feasibility and the credibility of environmental markets²⁵.

EU-level actions



- Develop a harmonised EU MRV framework for wetlands and drained organic soils that aligns CRCF certification with Member State greenhouse gas inventory reporting under the Paris Agreement Enhanced Transparency Framework, using IPCC-compatible methods for hydrology, CO₂, CH₄, N₂O and material fluvial carbon losses, alongside biodiversity and water-quality indicators, enabling restoration outcomes to be reported consistently in national inventories, certified without double counting, and improving emission factors and data quality over time^{35,36,37}.
- Promote harmonised ecosystem condition assessment methods aligned with the UN System of Environmental-Economic Accounting Ecosystem Accounting (SEEA EA) framework^{20,38,39}.
- Establish an EU Wetland Restoration Knowledge and MRV Hub, linked to the CRCF Expert Group, Mission Soil living labs and lighthouses, and the Knowledge Centre for Biodiversity, to connect scientists, public authorities, land managers, local communities and restoration practitioners. The Hub would co-design and test restoration protocols, align MRV methods for hydrology, GHG emissions, biodiversity and water quality, and maintain an open evidence base. It would also support peer learning and training, and feed insights into CRCF methodologies, NRPs, GHG inventories and adaptive management.

Member State and regional actions



- Require early, continuous, and inclusive participation of local communities and other relevant parties in restoration planning, implementation and monitoring³⁵. To ensure good practice, consider the introduction of codes of practice or engagement standards (like the UK's British Standards Institute code, BSI Flex 705).
- Strengthen capacities and skills for planning and implementing participatory inclusive processes for restoration at local, regional and EU level^{35,37} via evidence-based engagement training and the use of tools like the WET HORIZONS projects interest-influence-impact matrices to ensure inclusive and sensitive engagement⁴⁰.
- Invest in public awareness campaigns on climate mitigation, biodiversity, water security and resilience features of wetland restoration^{41,42}.
- Introduce social and environmental safeguards that prevent and mitigate negative impacts of restoration initiatives on marginalised groups, livelihoods and resource users⁴³, for example requiring voluntary carbon markets to align with Integrity Council for the Voluntary Carbon Market's (ICVCM) Core Carbon Principles and extending these safeguards to decarbonisation and publicly funded restoration projects.

REFERENCES

1. Maes, J., Teller, A., Erhard, M., Condé, S., Vallecillo, S., Barredo, J. I., Paracchini, M. L., Abdul Malak, D., Trombetti, M., Vigiak, O., Zulian, G., Addamo, A. M., Grizzetti, B., Somma, F., Hagyo, A., Vogt, P., Polce, C., Jones, A., Marin, A. I., Ivits, E., Mauri, A., Rega, C., Czúcz, B., & Santos-Martín, F. (2020). *Mapping and assessment of ecosystems and their services: An EU ecosystem assessment*. Publications Office of the European Union. <https://doi.org/10.2760/757183>
2. Delle Grazie, F. M., & Gill, L. W. (2022). *Review of the ecosystem services of temperate wetlands and their valuation tools*. *Water*, 14(9), 1345. <https://doi.org/10.3390/w14091345>
3. Wetlands International. (2026). *Wetlands for life: Wetlands International strategy 2026–2035*. <https://www.wetlands.org/publication/wetlands-for-life-2026-35/>
4. de Groot, D., Brander, L., & Finlayson, C. M. (2018). *Wetland ecosystem services*. In C. M. Finlayson et al. (Eds.), *The Wetland Book: I: Structure and Function, Management, and Methods* (pp. 323–333). Springer. https://doi.org/10.1007/978-90-481-9659-3_66
5. IUCN NL. (2026). *Making the business case for wetland restoration*. REWET Policy Brief. <https://www.iucn.nl/en/publication/policy-brief-making-the-business-case-for-wetland-restoration/>
6. Schröder, C., Sanchez-Espinosa, A., Otero, M. M., Abdul-Malak, D., & Cabrera-Brufau, M. (2025). *Assessment of extent, state and GHG profile of European wetlands* (Deliverable D6.2). Horizon RESTORE4Cs Project.
7. Morant, D., Picazo, A., Rochera, C., Santamans, A. C., Miralles-Lorenzo, J., & Camacho, A. (2020). *Influence of the conservation status on carbon balances of semiarid coastal Mediterranean wetlands*. *Inland Waters*. <https://doi.org/10.1080/20442041.2020.1772033>
8. Morant, D., Rochera, C., Picazo, A., Miralles-Lorenzo, J., Camacho-Santamans, A., & Camacho, A. (2024). *Ecological status and type of alteration determine the C-balance and climate change mitigation capacity of Mediterranean inland saline shallow lakes*. *Scientific Reports*. <https://doi.org/10.1038/s41598-024-79578-7>
9. Cabrera-Brufau, M., Minaudo, C., Attermeyer, K., Camacho-Santamans, A., Carballeira, R., Misteli, B., Montes-Pérez, J., Morant, D., Obrador, B., Picazo, A., Rochera, C., et al. (2026). *Assessing the effects of restoration and conservation on gaseous carbon fluxes and climate mitigation capacity across European coastal wetlands*. *Environmental Engineering* (Preprint). <https://doi.org/10.31223/X5PB>
10. Tanneberger, F., et al. (2021). *Mires in Europe—Regional diversity, condition and protection*. *Diversity*, 13(8), 381. <https://doi.org/10.3390/d13080381>
11. Pe'er, G., Bonn, A., Bruelheide, H., et al. (2020). *Action needed for the EU Common Agricultural Policy to address sustainability challenges*. *Nature Ecology & Evolution*, 4, 163–165. <https://doi.org/10.1038/s41559-019-1051-4>
12. European Court of Auditors. (2021). *Common Agricultural Policy and climate: Half of EU climate spending but farm emissions are not decreasing* (Special Report No. 16/2021). <https://www.eca.europa.eu/en/publications/SR-2021-16>
13. Organisation for Economic Co-operation and Development (OECD). (2023). *Financing a sustainable transition: Improving resource mobilisation for biodiversity and ecosystem restoration*. OECD Publishing. <https://www.oecd.org>
14. European Environment Agency (EEA). (2023). *Europe's wetlands: Status, pressures and restoration opportunities*. <https://www.eea.europa.eu>
15. Ramsar Convention Secretariat. (2021). *Global Wetland Outlook: Special Edition 2021*. <https://www.global-wetland-outlook Ramsar.org/gwo-2021>
16. Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). (2019). *Global assessment report on biodiversity and ecosystem services*. <https://www.ipbes.net/global-assessment>
17. Reed, M. S., McCarthy, J. M., Jensen, E. A., Everett, R., & Rudman, H. (2025). *Governing high-integrity markets for ecosystem services*. *Ecosystem Services*, 75, 101760.
18. Haltia, E., Tarvainen, O., Raivonen, L., & Tienhaara, A. (2026). *Report on landowners' perceptions, acceptability & compensation requests of wetland policies* (Deliverable D5.2). ALFAwetlands.
19. Reed, M. S., Young, D. M., Taylor, N. G., Andersen, R., Bell, N. G. A., Cadillo-Quiroz, H., et al. (2022). *Peatland Core Domain Sets: Building consensus on what should be measured in research and monitoring*. *Mires and Peat*, 28, 26. <https://doi.org/10.19189/Map.2021.OMB.StA.2176>
20. United Nations. (2021). *System of Environmental-Economic Accounting—Ecosystem Accounting (SEEA EA)*. <https://seea.un.org/ecosystem-accounting>
21. Hein, L., Bagstad, K. J., Obst, C., Edens, B., Schenau, S., Castillo, G., & Souldard, F. (2020). *Progress in natural capital accounting for ecosystems*. *Science*, 367(6477), 514–515. <https://doi.org/10.1126/science.aaz8901>
22. Berghöfer, U. (2025). *Landschaftsspaziergänge*. In *Landschaften gemeinsam gestalten- Rewilding am Oderdelta: Ein Werkstattbuch*. oekom verlag.
23. Camacho-Santamans, A., Morant, D., Rochera, C., Picazo, A., & Camacho, A. (2025). *Towards enhancement of climate mitigation in inland saline lakes*. *Water International*, 50, 197–204. <https://doi.org/10.1080/02508060.2025.2483773>

24. Rochera, C., Picazo, A., Morant, D., et al. (2025). *Linking carbon fluxes to flooding gradients*. *ACS ES&T Water*, 5(6), 2882–2890. <https://doi.org/10.1021/acsestwater.5c00171>
25. IUCN NL. (2025). *From EU Nature Restoration Regulation to effective implementation: REWET Theory of Change*. <https://www.iucn.nl/en/publication/pathways-for-translating-the-eu-nature-restoration-regulation-into-effective-wetland-restoration/>
26. Kampa, E., Elkina, E., Bueb, B., & Otero Villanueva, M. M. (2025). *Restoring European coastal wetlands for climate and biodiversity*. *Sustainability*, 17, 9469. <https://doi.org/10.3390/su17219469> [mdpi.com]
27. Rochera, C., Sánchez, V., Aguirre, E., et al. (2024). *Mediterranean wetlands and climate mitigation: Handbook*. LIFE Wetlands4Climate Project.
28. European Commission. (2003). *Common implementation strategy for the Water Framework Directive (2000/60/EC): Guidance Document No. 12*. [https://www.moew.government.bg/static/media/ups/tiny/filebase/Legislation/Guidance EU legislation/Guidance No 12 - Wetlands.pdf](https://www.moew.government.bg/static/media/ups/tiny/filebase/Legislation/Guidance%20EU%20legislation/Guidance%20No%2012%20-%20Wetlands.pdf)
29. World Bank. (2022). *State and Trends of Carbon Pricing 2022*. <https://openknowledge.worldbank.org/handle/10986/37455>
30. Otero, M., Camacho, A., Abdul Malak, D., Kampa, E., Scheid, A., & Elkina, E. (2024). *How can coastal wetlands help achieve EU climate goals?* RESTORE4Cs Policy Brief. <https://www.ecologic.eu/sites/default/files/publication/2024/33018-how-can-coastal-wetlands-help-achieve-eu-climate-goals.pdf>
31. Ciravegna, E. (2025). *Beyond public funds: Diversifying financing for wetland restoration*. RESTORE4Cs Policy Brief. https://medwet.org/wp-content/uploads/2025/11/RESTORE4Cs_4th_Policy-Brief.pdf
32. Oliveira, A., Kampa, E., Otero, M. M., & Elkina, E. (2025). *Catchment-scale approaches to wetland restoration in Europe*.
33. Reed, M. S., Kerkvliet-Hermans, R., Evans, C. D., Mendes, A., Mc Guinness, S., Tanneberger, F., Heinemeyer, A., & Ingleby, F. (under review). *Counting rewetting and restoration of drained peatlands as abatement in corporate net-zero standards*. *Climate Policy*.
34. United Nations World Water Assessment Programme (WWAP). (2020). *The United Nations World Water Development Report 2020: Water and Climate Change*. UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000372985.locale=en>
35. Seiferth, C., Tengö, M., & Andersson, E. (2024). *Designing for collective action*. *Sustainability Science*, 19, 1623–1640. <https://doi.org/10.1007/s11625-024-01527-z>
36. Intergovernmental Panel on Climate Change (IPCC). (2014). *2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands*. <https://www.ipcc-nggip.iges.or.jp/public/wetlands/>
37. Seiferth, C., Andersson, E., & Tengö, M. (2025). *The role of relational learning in knowledge co-production*. *People and Nature*, 7(10), 2320–2333. <https://doi.org/10.1002/pan3.70050>
38. Abdul Malak, D., Sánchez-Espinosa, A., Otero, M. M., & Schröder, C. (2025). *Advancing a coherent framework for assessing European coastal wetland condition*. Restore4Cs Policy Brief. https://www.restore4cs.eu/wp-content/uploads/2025/12/EN_Policy-Brief-8-v5_Final.pdf
39. Camacho, A., Morant, D., & Camacho-Santamans, A. (2025). *Standing water habitats*. In C. Olmeda & V. Stanová (Eds.), *Technical guidelines for assessing and monitoring the condition of Annex I habitat types of the Directive 92/43/EEC*. Luxembourg: Publications Office of the European Union. ISBN 978-92-68-31999-4.
40. Reed, M. S., Jensen, J. A., Kendall, H., Noles, S., Raley, M., Tarrant, A., Oakley, N., Hinson, C., & Hoare, V. (2025). *Analyzing who is relevant to engage in decision-making processes: The 3i methodological framework*. *Journal of Environmental Management*. <https://doi.org/10.1016/j.jenvman.2025.124802>
41. Rota, F. S., Sella, L., & Vivaldo, G. (2025). *Social acceptability: The key ingredient for enhanced coastal wetland restoration*. Restore4Cs Policy Brief. https://www.restore4cs.eu/wp-content/uploads/2025/12/EN_Policy-Brief-7-v5-Final.pdf
42. Sella, L., Rota, F. S., Pollo, N., Vivaldo, G., et al. (2025). *Understanding social acceptability in coastal wetland restoration. A socio-ecological perspective of the Danube Delta Biosphere Reserve*. *Central European Journal of Geography and Sustainable Development*, 7(2), 23-43. <https://doi.org/10.51865/CEJGSD.2025.7.2.3>
43. International Union for Conservation of Nature (IUCN). (2025). *How to ensure social outcomes in restoration*. <https://iucn.org/sites/default/files/2025-12/how-to-ensure-social-outcomes-in-restoration.pdf>