



REST-COAST

EU Nature Restoration Regulation and REST-COAST:

Setting the Basis for Coastal Restoration

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Funded by
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This project receives funding from the European Union's Horizon 2020 Innovation Action under grant agreement No 101037097.

Policy Recommendations Summary



POLICY COORDINATION

Consider utilising the opportunity the EU National Restoration Plans present to align processes across policy domains and governance levels (local, regional, national, union-wide), to promote local collaboration among stakeholders, and to ensure a common understanding of priorities and clear responsibilities at each governance level.



CONNECTIVITY

Consider restoration interventions that enhance the connectivity between terrestrial, freshwater, and marine habitats and the natural dynamics between these ecosystems. This will also provide co-benefits, such as increased coastal resilience, blue carbon and socioeconomic benefits. The EU Nature Restoration Law can also promote harmonised metrics to measure biodiversity and ecosystem services for restoration measures.



INTEGRATION AND ADAPTATION

Consider developing adaptation pathways to align biodiversity restoration with climate change action (mitigation & adaptation), supporting long-term restoration efforts and preventing ecosystem deterioration. This could be done by integrating future climate scenarios and changing socio-economic conditions into the planning of coastal restoration activities and future National Restoration Plans. Research done by REST-COAST can provide valuable context-specific information to do so.



STAKEHOLDERS ENGAGEMENT

Consider leveraging existing pathways to enhance stakeholder engagement and strengthen the scientific foundation for the National Restoration Plans. Platforms such as the REST-COAST Coastal Restoration Platforms (CORE-Plats) can be used to engage stakeholders, demonstrate restoration benefits, and attract funding.



FINANCING

Consider exploring innovative financial solutions and business opportunities to sustain and advance coastal restoration efforts, such as co-financing options and long-term investment pathways. It can help to identify ecosystem services with significant economic value to find funding for coastal restoration initiatives.



1 Why this briefing?

1.1 The need for coastal restoration

Coastal regions, with about 40% of the EU's population living there, are home to some of the richest and most unique ecosystems in Europe, providing a wide range of ecosystem services and forming a vital part of our economies. Seagrass meadows, for instance, serve as nursery grounds for valuable fish and wildlife species, supporting food production, and playing a key role in maintaining water quality. Salt marshes provide natural protection for coastal communities by absorbing rainwater and reducing flooding. Both ecosystems are also effective carbon sinks that can contribute to climate change mitigation (European Commission, 2024).

Despite their importance, they are currently under unprecedented threats, with 45% percent of coastal habitats evaluated by the IUCN European Red List of Habitats currently threatened and only 8% of the EU's coastal habitats considered in good conservation status (EEA, 2020; Janssen et al., 2016). This is the result of multiple pressures driven by human activities, such as overfishing, pollution, tourism, development, and climate change, which have led to an alarming decline in both biodiversity and functioning of these coastal ecosystems. Accompanied with an intricate governance and policy structure, the social-ecological system is also typically complex in EU's coastal regions, with many involved actors (Kern & Gilek, 2016).

Coastal restoration can enable these ecosystems to perform their natural functions, improving both their health and resilience. The socio-economic aspects related to governance and policies of coastal regions can also be improved. Doing so enhances the delivery of coastal ecosystem services, reduces climate risk and improves coastal adaptation to climate change (Sánchez-Arcila et al., 2022). The EU Nature Restoration Regulation, which entered into force on 18 August 2024, aims to restore and recover degraded ecosystems in EU territory. As it is a regulation, it is directly applicable in all EU Member States. **This policy brief outlines key considerations on how the project REST-COAST could contribute to making the best use of this regulation for the much-needed restoration of coastal regions.**

1.2 REST-COAST project: A timely opportunity

The **REST-COAST project** aims to overcome barriers and take advantage of enablers to achieve and upscale effective coastal restoration. The project – bringing together coastal and marine ecologists, economists, engineers and policy experts – will demonstrate to what extent the upscaling and outscaling of coastal restoration can improve the health and functioning of vulnerable coastal ecosystems, guided by transformative governance and recommendations for a supportive policy framework. The project recognises the natural dynamics between coastal ecosystems and therefore embraces the vision of connectivity from rivers to coasts and the sea to ensure the effectiveness and longevity of restoration efforts. Restoring coastal regions means reducing pressures on ecosystems so they can recover, as well as understanding how to make coastal ecosystems and communities more resilient in the face of global climate change. Appropriate governance and policy frameworks that facilitate the development and implementation of those restoration actions are also needed. Currently, most coastal restoration is taking place through fragmented and small-scale local initiatives with limited impact. Effective restoration action will require a broader scope, timely action and stronger local support, including adequate monitoring and maintenance, funding and long-term commitments (Sanchez-Arcilla et al., 2022).

Based on the project results, REST-COAST provides tools to overcome current technical, financial, governance and social limitations to widespread coastal restoration. Representing vulnerability hotspots for the main EU regional seas (Baltic, Black, Northeast Atlantic and the Mediterranean), the project's nine Pilot Sites demonstrate how to effectively scale up coastal restoration, from coastal wetlands and seagrass meadows to coastal lagoons. In addition, the Coastal Restoration Platforms (called "CORE-PLAT") from REST-COAST are a place to bring stakeholders together (public administrations, private sectors, scientists and NGOs) to overcome barriers and promote synergies for effective local restoration action. The EU Nature Restoration Regulation provides a unique and timely opportunity to develop a tailor-made framework for current and future restoration actions.



2 Where are we now: The policy context

2.1 International and EU policy context

The need for widespread restoration was recently recognised by the United Nations (UN), who declared 2021-2030 as the '**Decade of Ecosystem Restoration**' (UN, n.d.). Ecosystem restoration is also part of the Kunming-Montreal Global Biodiversity Framework, which sets a target of restoring 30% of degraded ecosystems by 2030 (CBD, 2022). At regional level, various Regional Seas Conventions continue to provide intergovernmental frameworks to address the degradation of the oceans and seas, including those covering EU regions including the **Barcelona**, **HELCOM**, **OSPAR**, and the **Black Sea Conventions**.¹ In addition, the **Ramsar Convention** provides an intergovernmental treaty for the conservation and sustainable use of wetlands.

The EU relies on a variety of regulatory frameworks, strategies and action plans that are already in place to protect and preserve its coasts and seas. However, restoration has not been the exclusive objective of these efforts. In addition to the **Birds** and **Habitats Directives** (BHD), which provide the framework for the protection of habitats and species under the Natura 2000 network, directives such as the **Marine Strategy Framework Directive** (MSFD), the **Water Framework Directive** (WFD), and the **Marine Spatial Planning Directive** (MSP) are aiming to improve the state of EU marine and water related ecosystems. Beyond that, further restoration action is promoted by the current **EU Mission 'Restore our Ocean and Waters'**. The **Integrated Marine Policy** (IMP) provides an overarching policy framework for all coastal and marine areas in the EU. Unfortunately, recent assessments have shown that the EU is far from meeting the targets set by the BHD, MSFD and WFD, with most habitats remaining in unfavourable conservation status, suggesting that additional legislation is needed to encourage action to restore our coastal ecosystems, in addition to protecting them (Maes et al., 2020).

In 2020, the EU published its **EU Biodiversity Strategy to 2030**, which serves as a key pillar of the EU Green Deal Initiative. This strategy aims to put Europe's biodiversity on the path to recovery by 2030 and fulfil its vision of 'Living in harmony with nature' by 2050. Key commitments of this strategy are the

protection of 30% of the EU's land and seas and a proposal for legally binding EU nature restoration targets to restore degraded ecosystems across the EU. The EU Nature Restoration Regulation, forming the legal basis for nature restoration, was adopted to move forward with this second commitment (European Commission, 2020). The EU Biodiversity Strategy also emphasises the need to restore marine ecosystems, including carbon-rich ecosystems and those areas important for fish spawning and nursery.



2.2 The EU Nature Restoration Regulation

The **EU Nature Restoration Regulation** (also known as Nature Restoration Law, NRL) is the first comprehensive legal framework for restoring degraded ecosystems across the EU, and also a pioneer on the global stage. This regulation, for the first time in Europe, sets legally binding restoration targets for Member States, together amounting for **the restoration of 20% of the EU's land and marine areas by 2030**, and the restoration of all degraded ecosystems by 2050 (Art. 1). The ecosystems with the most potential to capture and store carbon, and those that can help prevent and reduce the impact of natural disasters are prioritised. This implies that carbon rich marine and coastal ecosystems, such as wetlands,

¹ These conventions are each responsible for different marine regions; the **Barcelona Convention** for the protection of the Mediterranean Sea, the Helsinki Convention (**HELCOM**) for the Baltic Sea and the Oslo-Paris Convention (**OSPAR**) for the North-East Atlantic Sea.

mangroves,² seagrass meadows and salt marshes, among others, should be prioritised on national restoration agendas (Lecerf et al., 2023).

This new regulation provides a comprehensive approach for nature restoration action. Building on existing EU environmental policies and actively seeking synergies with EU climate policies, the NRL will strengthen the implementation and enforcement for ecosystem restoration throughout the EU territory. Its approach is to focus first on the habitats and species covered by the EU Nature Directives (Birds and Habitats Directives), adding time-bound commitments and specific requirements to restore ecosystems, also extending outside of the Natura 2000 network. For ecosystems that currently lack data and monitoring systems, including agricultural land and forests, Member States are required to improve on specified biodiversity indicators until accurate monitoring systems are set in place.

Relevant for coastal regions, the regulation will add specific targets and improve monitoring for

marine habitats and species covered by the MSFD. The regulation also promotes synergies with the WFD (including addressing diffused pollution from surrounding habitats and removing barriers to enhance natural connectivity of rivers and lakes). The NRL also refers to the Common Fisheries Policy (CFP), to ensure that the degradation of marine ecosystem due to aquaculture and fisheries activities is avoided.

In addition to the regulation's general provisions (Chapter 1), the NRL details the restoration targets and obligations for several ecosystems (Chapter 2) and the requirements for the national restoration plans (Chapter 3), which together form the key components of the regulation. The last three chapters describe monitoring and reporting under the NRL, delegated and implementing acts, and the regulation's final provisions, while the annexes provide the habitat types and species to which the NRL applies, agricultural and forest ecosystem indicators, common farmland bird index, and examples of restoration measures.

3. NRL's potential for Coastal Restoration

3.1 Key targets and provisions for coastal regions

Key targets for the restoration in coastal regions are provided in Article 4 on 'terrestrial, coastal and freshwater ecosystems' and Article 5 on 'marine ecosystems' of the NRL. The relevant habitat types and groups of habitat types for terrestrial, coastal, and freshwater ecosystems are listed in Annex I and for marine ecosystems in Annex II, while specific marine species are listed in Annex III. Under these two articles, Member States are required to put in place **restoration measures to improve at least 30% of listed habitat types and groups of habitat types to good condition by 2030** (60% by 2040, and 90% by 2050). In addition, Member States are required to re-established habitat types in additional areas to reach at least 30% of their favourable reference area by 2030 (60% by 2040, and 100% by 2050). Furthermore, they are required to continuously improve the quality and quantity of the habitats of species listed under the Nature Directives, including their re-establishment, consideration of their connectivity and avoiding significant degradation.³

In addition, the text establishes that Member States shall identify and remove barriers to surface water connectivity (Art. 9), thereby contributing to the objectives of Article 4 and the EU Biodiversity Strategy **target of restoring more than 25,000 km of rivers to free-flowing status by 2030**. The NRL also requires Member States to **restore and partly rewet drained peatlands in agricultural areas, namely 30% by 2030** (of which at least a quarter rewetted), 40% by 2040 (a third rewetted) and 50% by 2050 (a third rewetted), with flexibility clauses that allow to count restoration and rewetting in areas of peat extraction and other land uses (Art. 11). Other targets, obligations and topics that are covered by the NRL are renewable energy sources (Art. 6), national defence (Art. 7), urban ecosystems (Art. 8), pollinators (Art. 10), forests (Art. 12), and to commitment to plant at least three billion trees by 2030 (Art. 13).

² Europe does not have natural mangrove forests like those found in tropical regions. However, they are mentioned here due to their occurrence in several EU overseas regions and territories located in tropical and subtropical areas, such as those associated with France and the Netherlands.

³ This obligation refers to the habitat of species listed in Annexes II, IV and V of the Habitat Directives, and habitats of wild birds falling within the scope of the Birds Directive.

3.2 National Restoration Plans

The **National Restoration Plans (NRPs)** will be the cornerstone planning tools for implementing the NRL at national level. The document on the NRL dedicates a full chapter to elaborate on their preparation, content, submission, assessment, and periodic review. According to this text, **Member States shall submit their National Restoration Plans 24 months after the regulation enters into force, thus expected by August 2026** (Art. 16 and 17), and to review them every 10 years. In these NRPs, Member States will set out how they intend to deliver on the targets, and how they will monitor and report on their progress. Therefore, the ongoing work developed under REST-COAST projected to conclude in early 2026, presents a timely opportunity to contribute to this process.

Under the NRPs, Member States are required to develop a unified restoration plan. This holistic approach presents an excellent opportunity to harmonise restoration efforts and align them with existing policies that impact nature restoration. In coastal regions, ecosystem functions and services highly depend on land-sea interactions, hence coastal restoration efforts must consider how processes and drivers at land and sea impact each other. Well-connected terrestrial, freshwater and marine areas are furthermore crucial for the longevity of migratory species, including migratory fish, amphibians and butterflies (Hilty et al., 2020). **When drafting the NRPs, it will thus be essential to consider the connectivity between freshwater, coastal, and marine ecosystems to maximise restoration outcomes.** For this reason, the preamble to the regulation encourages Member States to include restoration measures for specific habitats of marine species covered by the Convention on the Conservation of Migratory Species of Wild Animals, or those listed as endangered or threatened under the relevant Regional Sea Conventions in their NRPs.

In addition to the relevance of the EU Nature Directives to the NRL, Member States are encouraged to identify and integrate synergies with other EU legislation and environmental objectives. For instance, marine and coastal ecosystems, as blue carbon ecosystems, can play a critical role for climate change mitigation and adaptation. Furthermore, Member States could consider synergies with, *inter alia*, the MSFD and the WFD, the [European Climate law](#), the [Blue Economy Strategy](#) and the [Climate Adaptation Strategy](#) in relation to coastal restoration.

Additionally, Member States will need to outline how they will allocate financial resources to fulfil the NRPs.

Member States are also required to monitor and report on the progress made towards the targets, which will contribute to improved monitoring systems and assessments of the different habitat types, and a better understanding of the current state of the different ecosystems. The NRL requires Member States **to know the condition of 50% of the marine habitat types included in the NRL by 2040**, and all by 2050 (Art. 5). Member States are also encouraged to use additional information about pressures and threats for the assessment of the condition of marine habitats listed under the NRL and the planning of restoration measures for these habitat types in the preamble to the regulation, given the technical and financial challenges to map and monitor marine environments. The European Commission in turn may propose additional restoration targets or propose amendments to the annexes based on technical and scientific progress (incl. adapting the list of species and examples of restoration measures).

Member States are also required to include the estimated co-benefits for climate mitigation and socio-economic impacts of the restoration efforts in their plans. This will enhance the understanding of the potential of different ecosystems for climate mitigation and highlighting the benefits restoration measures can provide for local communities, especially in coastal regions.

To scale up restoration measures, Member States will also need to improve coordination and cooperation at regional, national and local levels. In marine environments, **Member States are required to submit joint recommendations if their restoration activities are expected to conflict with fishing activities of another Member State** (Art. 18). Joint recommendations are already a voluntary procedure under the Common Fisheries Policy (Art. 11), which will now be made compulsory and include a timeframe, based on the targets set out in Article 5. The Commission is to facilitate and oversee this process, which is a crucial step as commercial fishing is the main threat to marine biodiversity (WWF, 2020). Essential for the regulation's implementation, **Member States are also required to use participatory approaches and provide early opportunities for the public and relevant stakeholders to engage with the planning and implementation process of the NRPs.**

4. Paving the way for a robust NRL implementation: Recommendations for coastal restoration

To achieve the NRL's objectives, there is a need for methods to accelerate and increase the scale and impact of restoration action, particularly in coastal and marine ecosystems. Over the next two years, Member States will have to draw up their NRPs and plan how they will deliver on the restoration targets. REST-COAST offers valuable input to Member States for these NRPs, providing expertise, tools and best practices from several locations across the EU and beyond

on coastal ecosystem restoration, which are key ecosystems for climate change mitigation and adaptation. The project particularly contributes by focussing on addressing technical, financial, governance and social limitations to upscaling and outscaling of coastal restoration. During the drafting of the NRPs, as well as the further implementation, monitoring and reporting under the NRL, Member States could take the following considerations in mind:

POLICY COORDINATION

Consider utilising this opportunity to align processes across policy domains and governance levels (local, regional, national, union-wide) and promote local collaboration among stakeholders. Effective coordination between all government levels and constructive stakeholder engagement will be crucial for the co-creation of restoration actions and a successful implementation of the NRL. REST-COAST is outlining clear responsibilities for each governance level and a good understanding of the policy landscape can enhance clarity and coordination of restoration efforts on the ground. This will ensure a common understanding of priorities and ensure that decisions are taken at the appropriate scale, promoting effective and collaborative restoration initiatives that together will support Member States to reach the targets of the NRL.

CONNECTIVITY

Consider restoration interventions that enhance connectivity between different habitat types and ecosystems, while accounting for land-sea interactions. Functional connectivity of terrestrial, freshwater and marine habitats is essential for healthy and well-functioning coastal ecosystems. Member States can promote harmonised metrics and data for coastal restoration initiatives to measure the delivery of ecosystem services in parallel to improved biodiversity status, and to compare the effectiveness of different restoration initiatives based on REST-COAST Pilot's outcomes. Focussing on connectivity and natural dynamics will not only enhance biodiversity, but also improve coastal resilience, boost blue carbon and provide shared socioeconomic benefits for local stakeholders.

INTEGRATION AND ADAPTATION

Consider integrating future climate scenarios and changing socio-economic conditions into the planning of coastal restoration activities and future NRPs. REST-COAST is designing adaptation pathways and local socio-economic developments that can support

the long-term continuation of restoration initiatives and to ensure that ecosystems do not deteriorate once they have been brought back to health. Adaptation pathways can provide information on which habitats to restore, as well as what restoration measures to use and their sequencing for the NRPs. This will promote the alignment of biodiversity restoration with climate change mitigation and adaptation for the future resilience of coastal ecosystems.

STAKEHOLDERS ENGAGEMENT

Consider leveraging existing pathways to enhance stakeholder engagement and strengthen the scientific foundation for the NRPs. Platforms that gather extensive data and offer new tools to relevant stakeholders - including scientists, managers, policy makers, conservationists, civil society and investors - can play a crucial role in fostering collaboration and engagement across all levels. The Coastal Restoration Platforms (CORE-Plats) present a valuable and timely opportunity to demonstrate the benefits of restoration to coastal stakeholders, while also engaging civil society and attracting funding that can be useful for the development and implementation of the NRPs.

FINANCING

Consider exploring innovative financial solutions and business opportunities to sustain and advance coastal restoration efforts. Member States are required to describe the financial pathways they intend to use to finance the implementation of their restoration plans. REST-COAST is exploring how innovative financial arrangements and bankable business plans can support long-term coastal restoration. The project offers in-depth assessments of financial barriers and opportunities in specific restoration projects, providing illustrations on how to upscale coastal restoration efforts. For instance, identifying ecosystem services that have significant economic value and can help to finance coastal restoration, as well as the identification of co-financing options and long-term investments pathways.

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