



RESTORING NATURE FOR BIODIVERSITY AND CLIMATE

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To secure the successful delivery of both the climate and biodiversity commitments of the European Green Deal, the package must include a cross-cutting legally binding target of restoring 660,000 square kilometers¹ of degraded habitats by 2030, through restoration of natural forests, peatlands, floodplains, including coastal wetlands, and biodiversity rich grasslands. In the marine environment, a target of 1 million square kilometers² must be envisaged and should have a specific focus on the restoration (including carbon rich sea grass meadows and reefs) and sustainable management of damaged habitats, for example, by banning destructive fishing methods such as bottom trawling. These targets are a conservative estimate based on the 2020 EU Biodiversity strategy target 2 to restore 15 % of degraded ecosystems³. This would contribute to a doubling of EU carbon sinks by 2030 and would also improve resilience to the impacts of climate change⁴. It should cover both the EU and its overseas regions and territories, which are particularly biodiversity rich.

Nature-based solutions, such as protecting remaining intact natural ecosystems and ramping up efforts to restore ecosystems within and outside the EU will not only help in tackling climate change, but will also deliver flood defense, water storage and purification, improved air quality, health benefits and recreational space for people to enjoy, whilst providing a livelihood for people living in or depending on those ecosystems. Such solutions are the most socially acceptable and often offer best value for money. Where EU policies actively undermine restoration and hence the achievement of climate and biodiversity objectives - for example EU incentives to grow bioenergy crops or harvest forest biomass for energy and fisheries subsidies - they should urgently be revised.

¹ Rough estimate of land equivalent to 15% of EU28 land area (15% of 4,4 Mio km²).

² Rough estimate of sea equivalent to 15% of EU 28 sea area (based on 200nm from the coasts, in total 15 % of 6,7 mio km²)

³ A recent science policy paper highlights the need to manage areas to reduce emission, so called Climate Stabilisation Areas, outside of a (30%) global network of protected areas. The paper proposes Climate Stabilization Areas covering 20 % on land and on sea: A global Deal for Nature: Guiding principles, milestones and targets. E. Dinerstein et al, 2019. <https://advances.sciencemag.org/content/5/4/eaaw2869>

⁴ Analysis of the potential for carbon dioxide removal in the EU through nature-based approaches is limited, but studies that do exist suggest that a doubling of the EU's current sink by 2030 is within the realms of possibility: Griscorn et al: <https://www.pnas.org/content/pnas/114/44/11645.full.pdf> ; Öko-Institut – Forest vision for Germany: <https://www.greenpeace.de/sites/www.greenpeace.de/files/publications/20180228-greenpeace-oekeinstitut-forest-vision-methods-results.pdf>; Analysis by Climact for the European Climate Foundation: https://stakeholder.netzero2050.eu/?view=ghg_emissions&code

We consider two approaches to define priority areas for restoration in the European Union:

1. **Improving the connectivity** of the Natura 2000 network by restoring, through fundamental positive land and sea use change, areas both inside Natura 2000 sites and key areas outside of the network (e.g. corridors and buffers)
2. **Restoring** ecologically degraded habitats which have a big potential **for climate mitigation** (carbon sinks/stores) and **adaptation** (mainly water retention).

We propose to use a combined approach as any EU-wide restoration initiative should pursue the EU objectives on biodiversity and climate change at the same time, as well as being coherent with other policy objectives such as water quality.

Well connected and coherent network of Natura 2000 areas is more resilient, allowing species to better adapt and cope with climate change impacts and effects. At the same time, we will need to use any **opportunities for carbon sequestration to remain below a 1,5° C rise in average global temperatures**, hence the specific focus on restoration of ecosystems which have the biggest “climate potential”. There is growing evidence⁵ that functioning and biodiverse ecosystems are both more efficient as carbon stocks and less vulnerable to loss of carbon e.g. through fires, pest outbreaks and storm damage.

There is scientific evidence that **connected networks of protected areas are more resilient** to pressures including to a changing climate: For that reason, iDIV (German center for biodiversity research, Leipzig University), with input from BirdLife, EEB, Rewilding Europe and WWF has worked on a common study which includes mapping key areas for connectivity of the Natura 2000 network at EU/large scale, taking into account rewilding principles. This map will help identify areas where there are particular needs for restoration to improve the connectivity for the Natura 2000 network⁶.

There is also growing evidence⁷ of the potential for restoring natural habitats that represent significant carbon sinks/carbon stocks, with peatlands being the most important ones, but also old growth forests, permanent grasslands, wetlands, sea grass beds and kelp forests.

It is estimated that land restoration, and reduced and avoided degradation that increases carbon storage or avoids greenhouse gas emissions in global forests, wetlands, grasslands and croplands could provide more than one third of the most cost-effective greenhouse gas mitigation activities required by 2030 to keep global warming to below 2°C⁸. Large scale nature restoration can provide an important contribution to such efforts. In particular, the proposed Restoration Initiative could contribute significantly to:

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/331581/biodiversity-forests-ecosystem-services.pdf

<https://esajournals.onlinelibrary.wiley.com/doi/10.1002/eap.1749>

⁶ A meeting to present the results of the study and map has been set up with DG ENV already.

⁷ See for example recent map produced by RSPB/BirdLife UK analysis overlap between biodiversity areas and carbon stocks.

<https://rspb.maps.arcgis.com/apps/Cascade/index.html?appid=2b383eee459f4de18026002ae648f7b7>

⁸ IPBES (2018): Summary for policymakers of the assessment report on land degradation and restoration of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services

- a) **Improve both the conservation status and the connectivity of the Natura 2000 network and hence contribute to halting the loss of biodiversity;**
- b) **Protect and restore carbon stocks, hence help stabilizing the climate below a 1,5° C rise in average global temperatures and hence avoid climate impacts.**

EU Member States already made a commitment to restore 15 % of degraded ecosystems by 2020. This target of the 2020 EU biodiversity strategy will not be met. Indeed, hardly any restoration work on a significant scale has been started, and almost no country has even produced restoration plans. With much improved science suggesting ever growing urgency, and massive public mobilization demanding immediate action, we cannot lose more time and must get restoration work going immediately. Given the climate and biodiversity emergency, and the fact that restoration of habitats can take several years, to achieve impacts by 2030 require work on the ground to start as early as 2021-2023.

The European Green Deal will therefore need to introduce a legally binding initiative in order to improve the connectivity of the Natura 2000 network and mitigate and adapt to a changing climate. This **Restoration Initiative** must prioritize funding towards restoration for climate and biodiversity.

Such a restoration initiative is SMART because:

- **Specific:** it gives absolute clarity on what should be done (i.e. re-wetting peatlands, rather than “assessing ecosystem services in view of optimizing management”).
- **Measurable:** counting hectares of positive land and sea use change (e.g. ha of re-wetted peatland) is eminently and precisely measurable so Member States’ progress can be assessed in real time. Land use change can in almost all cases be precisely tracked using remote sensing technology and specifically by the EU owned Sentinel/Copernicus system.
- **Achievable:** there is a huge body of experience in ecological restoration (including through hundreds of LIFE projects funded by the EC) and robust science on methods and means.
- **Relevant:** there is robust science showing that ecological restoration can bring back biodiversity and help in climate mitigation and adaptation.
- **Time-bound:** if a restoration target/commitment is included in the European Green Deal, it would allow the EU to go to the CBD COP15 with a concrete deliverable that can show ambition and support its leadership. If legislation is then swiftly adopted, actual restoration can start in time to have concrete effects by 2030, thus helping deliver on targets.

Committing to such a **Restoration Initiative** will help realise a “Paris moment” for biodiversity.